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PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH

PART 172

TELEPATHY AND CLAIRVOYANCE RECONSIDERED¹

BY J. B. RHINE

ABSTRACT: ESP is generally considered to consist of telepathy and clairvoyance, either of which may be precognitive. ESP and precognition are regarded as established capacities. But it is submitted here that we have no clear proof that a truly telepathic form of ESP ever occurs. It is even hard to design a sure test for true telepathy. Precognitive clairvoyance can account for all the "evidence" on record for telepathy. On the other hand, there is evidence of true clairvoyance that cannot be explained by precognitive telepathy, and there are methods available for testing true clairvoyance further. These considerations have far-reaching significance, even on the survival hypothesis. They do not in any way alter the case for ESP, but they will have much to do with its explanation.—Ed. Jour. Parapsychol.

WHEN a subject succeeds to a significant degree in identifying objects, such as the cards in a shuffled deck, by some extra-sensorial means, we commonly call the performance *clairvoyance*, or the extra-sensory perception of objects. If there is similar success in identifying the order of symbols being thought of by a sender, but with no objective target such as a card, we speak of telepathy. If both the card and the sender's thought are possible targets for the subject's extra-sensory perception, the test is one of undifferentiated or *general extra-sensory perception* (GESP).

But there has long been a fairly common question asked concerning clairvoyance: Do we need the hypothesis of clairvoyance to account for the results of clairvoyance tests? Can we not suppose that telepathy explains the results even when there is no sender looking at the cards, since the experimenter *will* look at them at the time of checking up? In view of the considerable evidence of precognition now published, it has become all the easier to suppose that precognitive telepathy can explain the card-calling test results commonly ascribed to clairvoyance.

As a matter of fact, we can easily turn the tables by asking whether we need the hypothesis of telepathy to account for the results of telepathy tests—whether the evidence for that phenomenon cannot be equally well accounted for by precognitive clairvoyance. Is it not possible that the

¹ By kind permission of Dr J. B. Rhine we are reprinting with considerable abbreviations an article which appeared originally in the *Journal of Parapsychology* for September 1944, together with comments by several of our members and a summing-up of the discussion by Professor C. D. Broad. *Hon. Ed.*

subject simply goes ahead in time by clairvoyance to the point when the sender records what he has just been thinking? Thus he would not need to use telepathy at all but would rely on clairvoyance-plus-precognition.

[Rhine goes on to say that, in his experience, most people have a distinct bias towards telepathy as against clairvoyance, which he thinks is because it is easier to draw an analogy between telepathy and physical effects such as radio and the electrical vibrations from the brain.]

Yet in plain truth we must all concede at the outset that we have no scientific justification for any bias one way or the other. We are as ignorant of *how to explain telepathy* as we are of how to explain clairvoyance—no more and no less—and we cannot compare two “ignorances.”

REQUIREMENTS FOR PROOF OF TELEPATHY

To show evidence of telepathy (and exclude clairvoyance) a subject would have to do significant scoring in tests in which he tried to identify the thoughts of a sender extra-sensorially when those thoughts had no objective record anywhere at any time. The sender could not even write down his thought later, for then it would be available to precognitive clairvoyance. All the sender could do within the limits allowed him would be to count mere hits and misses as such without any record being made of the symbols or target objects of which he was thinking.

Thus the entire accuracy of the true telepathy test depends upon the unrecorded personal judgments of the sender, and the room for error is accordingly greater than most critical readers will tolerate. It is true that the danger of error can be somewhat reduced by the use of a code, known only to the sender, and of some device, such as a list of random numbers, to determine the selection of the target or symbol to be “sent”. But this would call for an objective expression, either orally or in writing, of the code to be used by the sender, which would violate the conditions required for pure telepathy.

It seems very doubtful if any test for pure telepathy has ever been conducted. There were a number of “pure telepathy” experiments conducted at this laboratory in the early 'thirties in which the sender recorded his thoughts (one of five symbols) only *after* the time had passed for the subject to record his call. But in our more critical frame of mind to-day, we see clearly that precognitive clairvoyance was a distinct possibility in that particular test situation and that our term “pure telepathy” was little more than a mark of the degree to which we were influenced by existing concepts.

Soal and Goldney (5), reached the conclusion that precognitive telepathy was demonstrated. They believe that clairvoyance was ruled out by the fact that the subject did not score significantly when the sender did not look at the symbols during the run, and by the further fact that only certain persons could successfully act as senders. These facts may be regarded as suggestive in their bearing; but obviously they cannot be taken as conclusive, since we know now that the subject's attitude or belief is a very great factor in determining success and failure. The recent report of Schmeidler (4) gives fresh evidence that this is true. The mere fact that their subject *believed his ability was telepathy* could have inhibited his success (which might well have been due to precognitive clairvoyance) whenever the conditions did not conform to his beliefs or preferences. It is true that he

failed in clairvoyance tests and succeeded in tests allowing for telepathy with a successful sender, even when he was not told *which* of the two conditions would be imposed at a particular time. But if ESP is a part of his equipment, it cannot safely be concluded that the subject was wholly ignorant as to which of these two alternating conditions prevailed. That would be to ignore the principle we are testing.

In the light of the present reshuffle of values, there is a temptation to turn for evidence of telepathy to the reports of spontaneous parapsychical experiences—for example, instances of similar dreams. But this evidence could hardly be conclusive since the experience is necessarily objectified in the telling and precognitive clairvoyance (or clairaudience) is a possibility in all such cases.

One thing is clear: If we are to bring the telepathy hypothesis to crucial test, new experiments will have to be designed and conducted. Until then telepathy can be regarded only as an unestablished hypothesis having some favouring evidence, none of which is conclusive.

REQUIREMENTS FOR PROOF OF CLAIRVOYANCE

Something of a contrast is presented by the analysis of the case for clairvoyance. The requirements for such a test can be put very simply: If a subject significantly identifies cards extra-sensorially when no one knows the order at the time the test is made and *no record of that order is taken*, then no opportunity is provided for precognitive telepathy, and the test is one of true clairvoyance.

The first point to make is that our earlier tests were "purer" than we realised when they were being conducted. While no thought was being given to precognitive telepathy at the time, and we were alert only to the exclusion of telepathy of the present, some of the conditions approximated the requirements. The various card-matching techniques probably fall within the limits of acceptable clairvoyance tests, and there was a great deal of this matching work done. [Here Rhine describes, *inter alia*, the Screened-Touch-Matching experiments of Pratt and Woodruff (2). These were on the same lines as the Chutes series described next.]

The matching test which was probably most conclusive in its bearing on the clairvoyance hypothesis is the Chutes Series of Humphrey and Pratt (1). In this work the subject dropped cards, each enclosed in a sealed, opaque envelope, down appropriate chutes instead of piling them up opposite the key cards. As the envelopes dropped into the compartments in the next room, they were invisible to the subject and unobserved by the experimenters, who were occupied. The cards did not fall in orderly piles, and their sequence was often not preserved. The experimenters made no effort to keep the cards in the order in which they fell; they merely sorted out the hits, counted them, and dropped all the cards back in the compartment. Thus the memory-plus-precognitive-telepathy hypothesis hardly seems applicable here, although there is perhaps still a technical possibility.

A second type of evidence of clairvoyance may be found in the significant results of the ESP-shuffle experiments (3). In these tests the subject shuffled a deck of cards a given number of times (or a given number of seconds), aiming to make it match as fully as possible another similar deck or a list of symbols concealed from the subject's view. The important

operation was the shuffle (actually the last shuffle since that usually changes the entire order) and, of course, the ESP capacity guiding it. In placing a batch of cards in a certain position the subject was "calling" them to match the cards in the corresponding positions in the other deck. To place them intelligently (as against chance) requires some kind and degree of knowledge of present arrangement before the shuffle is made. But this knowledge cannot be drawn from the subsequent check-up by precognition-plus-telepathy because once the shuffle is made *the present order of the cards is destroyed and they will not then be in that order when the check-up is made*. Thus it is not possible to explain the ESP-shuffle results as due to the subjects precognitive telepathy of the experimenter's thoughts as he records the shuffled deck.

[This argument is expanded in the original paper.]

But even if we assume precognitive telepathy of the hidden deck and assume that the subject gets a glimpse of a card (or several cards, altogether, in the various shuffles) as he handles the deck he is shuffling, we have to go on to explain how he can *place* the card accurately in the right position by shuffling. He is merely taking an ESP test, unconcerned as to whether it is clairvoyance or telepathy. We can hardly suppose that without clairvoyance of the deck he holds he would know where and how to place the card which we assume he saw so as to match the one which we assume he perceived by precognitive telepathy.

Thus while the ESP-shuffle experiment does not offer an undebatable case for true clairvoyance, it does, to my judgment at least, represent a highly plausible one. With the addition of screening of the deck that is being shuffled from all possible sensory cues, this research method would be quite satisfactory.

Tyrrell's electrically operated ESP test machine (6) appears to meet the requirements for a pure clairvoyance test. His machine has five small boxes, any one of which may be lit by a small electric bulb. The box to be lit is selected by a complex mechanical device. The subject is instructed to choose one of the five boxes, trying to hit the lighted one. If he does, a hit is automatically recorded. In any case a record of the trial is automatically made. Now if there is only the record of trials and hits *without a record of which box is selected*, there is no future observation by anyone to which the subject may go forward precognitively for information as to which box to open. Precognitive telepathy is thus not a possibility. The subject himself, when he opens one of the boxes as his way of indicating his choice, sees the light at once if he is right, and thus knows which box was the target for that trial. And if he is wrong, he discovers that fact too. But since he has first to *make* his choice before he could possibly predict its outcome, the knowledge of the success or failure of the choice could not guide the choice—that is, as far as can be seen on the basis of present knowledge. Tyrrell's significant results, then, reported for these conditions may be safely regarded as evidence of true clairvoyance.

Other and even simpler machines for testing clairvoyance are now either under construction or have been recently brought into use here and in England (7). These types of apparatus allow the subject to try to identify a coloured disc or marble by pressing a lever and dropping the marble into a compartment which automatically registers the subject's impression as

to the colour. In the end, the check-up is made by counting the number of objects of the right colour in the five compartments. The order is lost track of completely, *provided the machine is closed in and the marbles are invisible* until the time of checking up, and hence any kind of precognition or precognitive telepathy is excluded.

Curiously enough, by far the most extensive (if somewhat indirect) evidence of true clairvoyance—evidence in which there is no suggestion of telepathy or precognitive telepathy—comes from the researches on PK, or the psychokinetic effect. In the PK tests thus far reported, a subject has endeavoured to influence the falling of dice by direct mental action, willing a specified face or combination of faces to turn up.

No one as yet pretends to understand the working of the PK effect, but as soon as one becomes aware of the occurrence of this phenomenon, one thing is fairly obvious to him : In order to succeed, the PK process has to be guided by some *orienting, directing influence—some cognition of the point in the space-time continuum at which the die is located at a given instant*, some way of knowing which face is up, and other details. Knowledge of the rolling die seems absolutely necessary to allow purposive action upon it. Now this knowledge has to be gained extra-sensorially because visual perception is much too slow to follow dice which are rolling and bounding against padded tables or down through wire cages. With larger numbers of dice—published experiments report up to 24, 60, and 96 per throw—the inadequacy of sensory perception is still more apparent. And the type of ESP that is required here is pure clairvoyance ; precognitive telepathy could not fill the need.

Thus the case for clairvoyance is found to have a firm foundation in the PK work, and what is probably a firm one in the matching studies and the ESP-shuffle experiments. The total evidence is sufficient to raise clairvoyance out of the realm of unestablished hypotheses where we must, for the present at least, leave telepathy.

GENERAL BEARING OF THE CONCLUSIONS

One thing should be made plain to everyone : *The total effective evidence for ESP is not affected by this discussion.* The issue is entirely an internal affair. [Here Rhine discusses the significance to parapsychology of his re-appraisal of telepathy and clairvoyance, and refers again to the general difficulty in the acceptance of clairvoyance as compared to telepathy.]

What specific difference does it make whether ESP is all clairvoyance, all telepathy, or partly both? What real change in the interpretation and bearing of ESP does the shift of telepathy from a preferred to a lower and doubtful status make ? Wherein does it matter that we shall now have to take clairvoyance with full seriousness and, at least for the present, consider it as the one form of ESP fully established ?

The most immediate consequence is that we must face in earnest the fact that *psychophysical interaction of perceptual character may occur without the known intermediating organs of the senses.* This joint function between mental and material systems resulting in cognition may no longer be dodged by speculative recourse to the telepathy interpretation. This relation is the counterpart of the interaction between the psychical and physical involved in the PK effect.

The drastic shifts in point of view which are called for in this reconsideration of the facts about telepathy and clairvoyance induce another sobering thought: May there not be other claims of parapsychical abilities that need to be given the same kind of re-appraisal? What other concepts, similar to telepathy and clairvoyance, are we using in ways which cannot be justified when we subject them to critical analysis? Already in the course of the discussion of telepathy and clairvoyance the concept of precognition has met with some new problems.

THE HYPOTHESES OF TELEPATHY AND SURVIVAL

The telepathy hypothesis has been regarded as one of the main counter-hypotheses to that of survival in explaining the mediumistic utterances that have been among the primary data bearing on the issue of personal survival.

For the present it would be wishful thinking to apply the telepathy hypothesis as a counter-argument against the survival hypothesis while there is no clear evidential case for the occurrence of telepathy. *Only if telepathy is reliably known to function as a human ability can we properly suppose the medium is using such a parapsychical capacity in acquiring her knowledge.* In many instances it may make little real difference about telepathy if the medium is to be credited with unlimited clairvoyance (including precognitive clairvoyance), but it would be logically possible to have cases occurring in mediumistic practice in which only telepathy could serve as an alternative to survival (for example, cases in which only the sitters' notation of "right" or "wrong", entered on a stenographic record, registers the fact that the mediumistic utterances seem to reflect thoughts which could have originated only with the sitter or the purported communicator). There can be no objective confirmation for such instances, but at least there can be unlimited multiplication of instances.

Another close association between the telepathy and the survival hypotheses is indicated in the familiar suggestion that if there is spirit communication it is *telepathy between the living and the dead.* The supposition is that the medium acquires her "messages" through telepathy with the minds of the deceased personalities purporting to communicate. In related fashion the hypothesis is extended to cover the explanation of communication between spirit personalities. According to the speculation of the spiritist, thought-transference from mind to mind is not possible on a sensory, mechanical basis since the spirits are incorporeal. Telepathy is the only means of inter-communication possible. According to this line of thought, then, telepathy is essential, not only to the communication of the spirits with the living, but to their intercommunication among themselves. In this suppositional instance precognitive clairvoyance could not substitute in any way for the role attributed to telepathy. *The question of the occurrence of telepathy thus becomes of very great importance to the investigation of the spirit hypothesis.*

PROSPECT FOR TELEPATHY RESEARCH

If these reflections on telepathy are sound, we may perhaps rightly hope for a strongly renewed interest in telepathy research. One of the goals would be to settle once and for all the status of the telepathic hypothesis

as a counterhypothesis in the investigation of the question of survival. If, as so many people have long believed, telepathy does occur, it is reasonable to hope it will meet the new experimental demands that have to be made and will eventually be firmly established. As a matter of fact, I have a degree of the same personal bias toward telepathy that most students of parapsychology seem to have. But the situation must be frankly faced: there is at the moment no adequately reliable case for telepathy. If a correct approach is made to the problem, and if telepathy occurs, the evidence will presumably come in time. If it does not, new insights and adjustments will be in order. Whatever is discovered, it will help to explain the nature of ESP, and its discovery will almost certainly improve the reach of the human mind in its effort at self-understanding and the eventual control of its world.

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COMMENTS ON DR RHINE'S " TELEPATHY AND CLAIRVOYANCE RECONSIDERED "

I. BY W. WHATELY CARINGTON

WITH Dr Rhine's general approach I could hardly be more heartily in accord. Nothing is more salutary than radically to challenge views that are usually taken for granted ; and valuable results may often be obtained by seeing what happens when we turn them inside out. In particular, few things would please me more than to be forced to the conclusion that it is inherently impossible to distinguish experimentally between the so-called " telepathic " and " clairvoyant " explanations of paracognitive phenomena. We should then have to admit that the alleged distinction is strictly meaningless, and that the supposed alternative hypotheses were no more than alternative linguistic ways of describing the same events. If we were then to cast out, as necessarily meaningless, the terms on which the apparent distinction depends, we should, I think, find that we had made an important step forward in our understanding of the relation between what we call " mind " and what we call " matter ".

As I shall explain below, I fancy that something very like this conclusion will, in fact, be forced upon us, though the argument will not follow precisely the course just indicated, or the line taken by Dr Rhine.

My immediate reaction to the content of Dr Rhine's remarks was one of strong dissent ; but I suspect that this was mainly a matter of prejudice, due to my having thought so long about, and in terms of, telepathy and to having (as I believe) produced a not implausible theory of its mechanism. I now think that I was probably wrong in this, and am provisionally prepared to go even further in certain directions than Dr Rhine does, though I cannot assent to his basic view (as I understand it) that clairvoyance is a process radically different from telepathy and alternative to it.

It seems fairly clear to me that, once we concede the claims of clairvoyance as ordinarily understood, we can never formally demonstrate " pure " telepathy, though the difficulties are not, I think, quite those envisaged by Dr Rhine. I see no sort of objection in principle, though there would be a few technical problems to be solved in practice, to the type of experiment he mentions, in which the experimenter merely images or " thinks of " a succession of card symbols, say, and records no more than whether the subject's guess was right or wrong. It is true that we should have to rely exclusively on the experimenter's statements, but I do not think that any one who is prepared to accept paranormal cognition in any form would cavil seriously over this.

The trouble is rather that the proponents of clairvoyance would be, so far as I can see, perfectly entitled to claim that any process of imaging, etc., by the agent is bound to be accompanied by corresponding and presumably characteristic changes in the brain, or perhaps by innervations of speech mechanisms, eye movements, etc., of subliminal intensity, and that these may be clairvoyantly cognised. Against this line of argument no experiment that could possibly be conducted by incarnate man could be

proof. I agree that such an hypothesis would be extremely far-fetched, not to say fantastic, and I do not believe a word of it ; but it does not seem to me more fantastic than the kind of thing we are implicitly asked to accept in connection with clairvoyance of more ordinary type, assuming that the evidence is strong enough (as it probably is) to warrant us accepting this at all.

In the "chutes" experiment, for example, and *mutatis mutandis* for others, we are required to believe that the subject identifies a *black* symbol on a *white* card when that card is in the dark. But to say "such and such a card, now in the dark, is now white" is absurd, because "white" can only mean "reflecting light of all frequencies", whereas *ex hypothesi* there is no light to reflect. And the same, of course, for coloured counters, etc.

The clairvoyantist must therefore fall back on some story to the effect that it is the "inner nature" of the pigment or the like that is cognised. But the words "inner nature", if held to refer to something that is essentially unobservable, yet in some way responsible for the observable properties of an object, etc., means exactly nothing at all ; for no conceivable process can distinguish between the hypothesis that an object consists of properties plus an inner nature, and the hypothesis that it consists only of properties.

So far as this is concerned, I should, and do, remain an unrepentant telepathist, on the ground that although I cannot devise an experiment formally to exclude the clairvoyant alternative, I am not called upon to exclude alternatives that mean nothing.

But although I should like to see much more and more direct evidence in favour of pure clairvoyance than has yet been adduced—in particular strong positive results from Mr Parsons' machine or some close equivalent—I think we must even now cater for the probability of its being a fact in nature. But in doing so we must strenuously refuse to fob ourselves off with pseudo-explanations based on the use of such logically meaningless terms as "inner nature", "essential quiddity" or the like.

The only way out of the tangle that I can see is to say firmly that a thing *is* the totality of the observations that can be made upon it, and nothing more ; more accurately, perhaps, that it *is* a certain sequential pattern of *sensa* (or sense-data, *sensibilia*, *cognita*, or like terms). This does away with all meaningless non-sense about "direct awareness of its inner nature", but it involves divesting our irreducible "*sensa*" of any exclusively sensational (physiologically speaking) connotations.

It also involves the more revolutionary notion that a red *sensum*, say, (I should prefer to call it simply a *cognisable*), exists even when, as we would ordinarily put it, the object to which it belongs is in the dark ; but this appears much less objectionable than at first sight when we reflect that we can easily enough retain or recall a red *image* when the so-called "object" is darkened.

The real key to the difficulty seems to me to lie in the meaning to be attached to the word "exists". So far as I can see no meaning whatever can be assigned to the proposition "X exists now, although no-one is cognising it (or can observe it)" except by making it identically equivalent to the proposition "X will be cognised (or observed) under such and such

conditions". The notion that the continued existence of X, not at the moment cognised, implies that X is lurking somewhere behind the scenes waiting to take its cue and come on the stage again, is natural enough, but non-sensical, because it could only be verified by observing (*i.e.*, cognising) X in its hiding place.

To bring telepathy and clairvoyance into line, then, I think that we must first eject with ineluctable finality our old but tiresome friend the thing-in-itself, *Ding-an-sich* (or *Ding*, as we might call it for short). We must say that what we commonly call a material object is no more and no less than a certain sequentially patterned aggregate of cognisables, the individual existences of which do not depend on their being actually arranged in that pattern at any particular moment (or something very like this—no doubt the wording could be improved). Various circumstances may lead (I speak somewhat colloquially) to their being brought into certain relations with other groups of cognisables forming what would usually be called mental contents or the like (but, according to me, just minds or sub-systems thereof), and they are then said to be cognised by those minds. They are then, of course, if not before, subject to associative processes, etc. If the cognitive relation is brought about by associative mechanisms involving another mind or minds, we call it telepathy; if it is direct, and does not involve anything that would ordinarily be called another mind, then we call it clairvoyance.

Thus it would be fundamentally waste of time, I submit, to wrangle whether telepathy is explicable in terms of clairvoyance, or clairvoyance in terms of telepathy. Such disputations can arise only from the tacit or explicit postulation of logical monstrosities such as Egos and Dings. I think that if we stick resolutely to what alone we know, namely ordered sequences of cognised cognisables, if I may so put it, we shall find that telepathy and clairvoyance are not mutually exclusive alternatives, or even rival hypotheses, but only closely related varieties of the same fundamental process.

I need hardly say that the foregoing remarks are to be taken as highly tentative; but I feel it would be a pity to squander our energies on unprofitable controversy, and I believe that what I have said indicates approximately the lines along which we may most advantageously try to develop our thinking on these topics.

THE LOCUS STANDI OF TELEPATHY

II. BY J. HETTINGER

HAVING no personal experience of the various methods used in the card-guessing and dice-rolling experiments, I lack the necessary background for expressing an opinion as to whether the conditions of clairvoyance or of telepathy were present in the specific series carried out by Dr Rhine and others. For the same reason, I am unable to pass any comments on the issue: precognitive clairvoyance *versus* precognitive telepathy. However,

in view of Dr Rhine's reconsidered opinion, that clairvoyance is now an "established" and telepathy still an "unestablished" hypothesis, I feel that the assertion ought not to be left unchallenged.

Psychic experiences often referred to as "clairvoyant" and "telepathic" have been known long before the present experimental stage. Many of them have been carefully investigated by the S.P.R. and the American S.P.R., and they carry a certain amount of conviction, which, in my opinion, compares favourably with the conviction which the significant results of statistical tests are supposed to lead to. Although I myself am a protagonist of statistics whenever they can be easily applied and readily understood by others, I feel certain that an abundant collection of striking experiences and striking results of qualitative experiments tends to carry greater conviction than the results of mathematical calculations. I am mentioning this, because of Dr Rhine's statement: "To show evidence of telepathy (and exclude clairvoyance) a subject would have to do significant scoring...". Significant scoring is not the only evidence in science; moreover, based, as it is, on "hits" and "misses", it does not differentiate among the individual successes, which of them are due to chance coincidence and which to a transcendental faculty.

As I assume, and hope, that others will take up the challenge by dealing with the evidence provided by the collection of the spontaneous cases of a telepathic character, I will confine the evidence I wish to bring forth in support of telepathy to some of the instances reported in the two volumes¹ of my experimental work on psychometry, carried out at King's College, London University. Before doing so, however, I submit that the definitions of "clairvoyance" and "telepathy" given by Dr Rhine require to be slightly amended for the sake of greater precision and accuracy. They ought to read as follows: When a percipient succeeds in identifying objects by means transcending ordinary sensory and intellectual perception, and those objects are not known to any mind, we commonly call the performance *clairvoyance*. If there is similar success with respect, *not* to a concrete object, symbols and illustrations included, but to the mental, viz. psychological, make-up of a person, *the subconscious included*, we speak of *telepathy*. If both the object and the mind are possible targets, we are unable to differentiate whether the interrelation between the percipient and that which is perceived is one of clairvoyance or telepathy.

The experiments described in the first volume revealed a number of instances of a striking or exceptional character accepted as veridical. Some of these applied to the actual time of the test and some to the more or less recent past. Adhering strictly to the above definitions, I fail to see how any of the instances wherein that which was perceived belonged to the past can be claimed as being cases of clairvoyance, seeing that they were merely in the mental make-up of the subject and not a concrete target. In my submission, all identified memory targets come within the definition of telepathy.

I do not dispute that some of the instances hereinafter selected may possibly be of a clairvoyant character but, as will readily be appreciated, the conditions of telepathy are also present. As regards many of the other

¹ J. Hettinger, *The Ultra-Perceptive Faculty and Exploring the Ultra-Perceptive Faculty*, Rider, London.

instances, however, the conditions of clairvoyance are totally absent whilst those of telepathy are always prevailing.

A. Instances in which the conditions of both clairvoyance and telepathy were present.

1. *Sensitive* : " I see a lady's thin arm with a gold bangle, old-fashioned type, solid looking."

Subject : " My own arm is thin and I wear a solid gold bangle always."

2. *Sensitive* : " I get an enlarged toe joint, painful."

Subject : " Yes, I have one."

In these instances it could be said, that the sensitive perceived the thin arm with the solid gold bangle thereon and the enlarged toe joint clairvoyantly ; but, since the subjects knew of these facts, it could also be said that the perception was of a telepathic character. The same argument applies also to the following instances of veridical perception :

3. *Sensitive* : " I see a mole on this person's right hand."

Subject : " Yes."

4. *Sensitive* : " A pile of shillings as if saved for some purpose."

Subject : " Yes, I was counting the takings in a shop at the time of the test, about 7.10 to 7.30, and had silver in piles." (Time of the test : 7.8 to 7.18.)

5. *Sensitive* : " An electric light switched on and off quickly as if for a definite purpose."

Subject : " Yes. This was the experiment I was doing at the above time 6.10 to 6.30." (Time of the test : 6.22 to 6.32.)

The following two examples are taken from the collection of successful results in the tests with illustrated magazines :

6. *The subject* was perusing an illustrated advertisement of furniture covers, the latter being shown on a sofa and chairs.

Sensitive : " Fresh clean covers put on furniture."

7. *The subject* was looking at a large cart-horse, the caption underneath reading : " Biggest horse in the world . . . still growing."

Sensitive : " Some admiration for large cart-horses."

B. Instances doubtful as regards clairvoyance, but in which the conditions for telepathy were present.

1. *Sensitive* : " Some important interest in an exhibition." (Date of test : 12.3.36.)

Subject : " Have taken considerable part in organisation of N.I.I.P. (National Institute of Industrial Psychology) exhibition held 10 to 12 March."

I doubt that the actual exhibition could have produced a clairvoyant vision. There cannot, however, be any doubt of the exhibition having been uppermost in the subject's mind at the actual time of the test on the 12th of March. Similar considerations apply to the following veridical examples :

2. *Sensitive* : " In touch with an evening class of young girls ; waiting for this person to come."

Subject : " Yes, the night of the sitting."

3. *Sensitive* : " Owner read some papers I want to call proofs."

Subject : " Ycs. Yes. On this date at six o'clock." (Time of the test 5.58 to 6.8.)

It is the reference to " proofs " that makes this case doubtful as regards clairvoyance.

The following instances of the same category belong to the tests with illustrated magazines :

4. *The subject* was reading a short paragraph about 500,000 cats.

Sensitive : " Peculiar noise going on here."

5. *The subject* was perusing an advertisement illustrated by two pictures respectively inscribed : " FIRST—Medical Science Discovered its Magic Effect " and " THEN—we tested it in Face Creams for over three years ".

Sensitive : " Progression."

6. *The subject* was looking at the illustration of the front of a house, an inscription over the entrance gate reading : HOTEL RITZ GRAND PALACE BEACH SHIP CECIL.

Sensitive : " A red bird ; symbol of a hotel."

C. Instances in which the conditions for telepathy were present and those for clairvoyance entirely absent.

1. *Sensitive* : " I get twin babies."

Subject : " Yes, I and sister are twins."

2. *Sensitive* : " Some interest in Lancashire."

Subject : " I was born in Lancashire."

As can be seen from these two examples, and the following ones, that which was found veridical could not possibly have been perceived clairvoyantly, in the absence of something concrete, including an illustration.

3. *Sensitive* : " The mind is on inventions ; I cannot interpret it, whether he has invented something or is inclined this way."

Subject : " Subject is a patent agent assistant (a profession concerned with inventions)."

4. *Sensitive* : " I am not sure whether it is Thursday or Friday,—a remark passed by the owner." (Given 3.9.37.)

Subject : " Yes, significant, said it at lunch that very day, 3.9.37."

5. *Sensitive* : " Very peculiar feeling about a bullet, does not touch me, cannot understand what it means." (Test on Wednesday.)

Subject : " Yes, about Monday or Tuesday I dreamt I was shot at."

Here are, by way of example, two of the very numerous instances in which the source of the telepathic impression was probably the sub-conscious, as in the instance 5 just cited, since that which was accepted as veridical occurred in the recent past and not at the actual time of the test.

6. *Sensitive* : " Dripping on toast, instead of butter."

Subject : " Yes, discussion two days before on the merits of dripping on toast instead of butter."

7. *Sensitive* : " Patting and talking to a white goat."

Subject : " Yes, a few days ago."

The following instances belong to the collection of results obtained in the experiments with illustrated magazines :

8. *The subject* was contemplating the picture of a guide whose cap was inscribed : " SIGHT-SEEING GUIDE " ; the caption of the picture was : " AND HERE ARE THE HIGH SPOTS " .

Sensitive : " A mountain in the distance and boys roped together going up. "

9. *The subject* was reading about a competition : " Naming the Stars ", in which the names of eight film stars had to be given ; one was mentioned, so that only seven had to be entered.

Sensitive : " Something I am arranging with seven people. "

10. *The subject* was reading a paragraph having the title : " YOU CAN'T TELL WITH PREMONITION " .

Sensitive : " It seems a long way ahead ; talking about something the results of which lie at the end of the year. I do not want to make a mistake. "

11. One of the most striking instances occurred when two sensitives psychometrised each other's articles, without, of course, their being aware of it. Here is their simultaneous impression :

K : " I hear a noise like a *heavy chain* being dragged along. "

F : " A large *heavy chain*. "

When subsequently asked to verify the various impressions, neither of the sensitives could place this one. The only explanation I can think of is, that one of them got the impression by some association of ideas first, and the other one then perceived it telepathically. The sensitives were miles apart from each other.

12. I cannot resist adding the following instance from my further collection, secured since the publication of the work referred to.

The subject was looking at a caricature of the ex-Prime Minister Baldwin.

The sensitive : " A joke about an umbrella. "

This obvious reference to Chamberlain, Baldwin's successor, is a striking illustration of that which I endeavoured to expound above regarding the reality of telepathy, as contrasted with clairvoyance ; for there was no umbrella on the picture contemplated by the subject, and a joke as such cannot be seen clairvoyantly.

General comments on the problem as a whole.

" Clairvoyance " and " telepathy " being only definitions of the conditions under which the transcendental perception takes place, and not the explanation of its *modus operandi*, of which we are still ignorant, I submit that it is premature to speak of either of them being *the* hypothesis accounting for the perception under the two differentiated conditions. I am making this assertion, because of the apparent evidence that can be put forward in support of both clairvoyance and telepathy, based on the conditions prevailing at the time of the experience or experiment.

The bias we all have for telepathy—not excluding Dr Rhine, according to his own admission—is probably due to the fact, that a good many of us have had personal experience of telepathy, at some time or other, but hardly, if at all, of clairvoyance in the sense above defined. Irrespective of such bias, however, I submit in conclusion, as I hope to have proved by

citing the above instances, that the nature of that which is perceived is often such, that a clairvoyant interpretation loses its *locus standi* owing to the absence of the concrete counterpart of the perception, whilst the telepathic one seems to be fully justified by the perception identifying something that is purely mental at the time of the test.

III. BY R. H. THOULESS

THE points raised in Professor Rhine's article are deserving of attention by all experimentalists in the field of psychical research. The question of whether telepathy has been proved by an experiment or observation in which all other paranormal explanations have been ruled out is obviously a different question from that of whether telepathy is the most probable explanation of many results which have been obtained. I also agree with Rhine that the apparent impossibility of clairvoyance is not a reason for deciding that it does not take place. If the results of experiments excluding all other paranormal explanations are positive (as appears to be the case), then they require us to revise our ideas of what is and what is not possible.

It seems to me that a very great simplification of the issues would result if we could begin by discarding the terms "telepathy", "clairvoyance", "pre-cognitive telepathy", etc., and stating the various conditions under which psi-cognitions might occur. The problem is then to determine, by investigating the success of various combinations of these conditions, which are effective in producing psi-cognitions. The conditions to be investigated would seem to be the various combinations of (a) an event occurring or being merely thought of (b) normal knowledge of the event being or not being possessed by some other person, and, (c) the event, or knowledge of the event being present (or past) at the time of the experiment or being then in the future.

The possible combinations of these conditions give us the following possibilities for investigation :

(1) The event has taken place at the time of the subject's response but it is not then known by normal perception either to the subject or to anyone else and will not be so known at any time afterwards.

(2) The event has taken place at the time of the subject's response and it is known then by some other person or persons but is not known by any normal process either then or at any time afterwards to the subject.

(3) The event has taken place at the time of the subject's response but it is not known then by any normal process to the subject or to anyone else and will not be so known afterwards to the subject although it will be by some other person or persons.

(4) The event has taken place at the time of the subject's response and is not known then to the subject or to anyone else but will be known by normal perception to the subject at some time afterwards.

(5) The event will take place at some time after the subject's response and will not be known by normal perception either to the subject or to any other person at any time.

(6) The event will take place after the subject's response and will be

known by normal processes of perception to some other person or persons but not to the subject.

(7) The event will take place after the subject's response and will be known to the subject then by normal processes of perception.

(8) No external event will take place but what is cognised will be an unrecorded thought in the mind of some other person or persons than the subject which thought is contemporaneous with the subject's response.

(9) No external event will take place but what is cognised is an unrecorded thought in the mind of some other person or persons which thought is not determined until after the subject's response.

These correspond to all possibilities that seem at present to require investigation. Some have been done. No. 1 for example, is what Rhine calls "pure clairvoyance" the evidence for which he considers in the present article. Others are discussed in the later article which he has kindly sent me on "Precognition reconsidered". Other possibilities than those listed above might be considered later, *e.g.* one might discriminate between the case when the event is past and when it is present as well as between present and future events.

Any of the above conditions might be found to be necessary to paranormal cognition in the sense that, without it, paranormal cognition did not take place at all. Alternatively, a number of them might be found to be sufficient conditions in the sense that with them alone paranormal cognition could take place although it might also take place in other combinations of conditions. Lastly, it might be found that certain of these conditions, although not necessary to paranormal cognition, were favourable to it in the sense that better scores occurred with them than without.

So I should like to restate the problem as the experimental determination of what are the necessary, the sufficient, and the favouring conditions for paranormal cognition. This is, of course, essentially no more than a verbal restatement of the problem, but I think it helps to make the issue clearer and to strip it of many possibilities of misunderstanding.

With respect to the possibility of devising a test of pure telepathy (No. 8 above), this seems to me less difficult than Professor Rhine suggests. The conditions he requires are that no external event shall determine the thought to be cognised and that no record of it shall be made. That the experimenter should simply think of an object or card will not do, since methods of assessing the chance score in a test of this kind are not valid if neither the sequence of events nor that of guesses is a random one. The problem is to devise a method of getting a random sequence in the cards thought of by the experimenter without any external event determining the card thought of. This can be attained by a combination of a random external determination producing randomness and an internal determination destroying any exact correlation between the external event and the card thought of.

I am now carrying out an experiment designed to satisfy Rhine's criteria for an experiment in "pure telepathy". The method is as follows. The subject has before him ten drawings: Anchor, Bone, Cat, Dagger, Elephant, Fish, Glass, Horse, Insect and Kangaroo. I sit behind him with a pack of 20 cards containing two each of the numbers from 1 to 10. Before starting the experiment I draw out four cards and record their numbers.

By a means known only to myself, I derive from these cards a number from 0 to 9 which I shall add on to each of the numbers drawn from the pack during the experiment. Since there are 80 possible ways of deriving a number from the four numbers recorded (by all possible combinations of ignoring, adding, or subtracting each of them), no one can tell from the four numbers recorded what is the final number I have chosen. Yet it is determined externally and not by me so that no successful result can be attributed to my precognition of the subject's guess. After these four cards have been shuffled back into the pack, I draw a card and record its number. I then add to its number the number previously determined and think of the picture corresponding to the sum so obtained (after subtracting ten if the sum exceeds ten): of the anchor if the sum is one, of the bone if the sum is two, and so on.

The subject writes down the name of the picture he guesses that I am thinking of. After the whole twenty cards have been used, I copy the subject's responses on to my own sheet, recording how many he has guessed right but making no record of which particular responses are right. There is thus no external event either during the experiment or subsequent to it from which the subject could know what were the right responses by "clairvoyance" or by "precognitive clairvoyance". Although the experiment is completely recorded, the record would not tell anyone who saw it which picture I was thinking of at any point unless he also knew something which exists only in my own mind—the method by which I derived the number to be added to each number drawn. Success can, therefore, only be explained as due to paranormal cognition of my thought, that is, to telepathy. This experimental method could obviously be easily adapted for the detection of condition 9 (pure pre-cognitive telepathy) by the subject making his guess before the experimenter turned up his card.

IV. BY G. N. M. TYRRELL

It must have been obvious for some time, to others as well as to myself, that the modern tendency to pin all faith to quantitative and statistical methods of experiment in psychological research, with a neglect of qualitative phenomena, must lead to an unbalanced view of the subject. How unbalanced that view can become is illustrated by Professor J. B. Rhine's article, *Telepathy and Clairvoyance Reconsidered*, epitomised above. The issue raised in the article of whether certain apparently telepathic phenomena are in reality clairvoyant is relatively unimportant. What is of vital importance is that Professor Rhine has been led, through an unconscious bias, to deal with the evidence in a completely distorted manner.

The fundamentally erroneous assumption that Professor Rhine makes is that evidence yielded by experiments of the card-guessing type is adequate to reveal the essential nature of extra-sensory perception. It may be adequate to demonstrate its existence and to illustrate some of its features; but not to provide a general theory of it. Professor Rhine however, proceeds on the assumption that for theory-building it is virtually the only evidence that need be taken into account.

We all know the arguments in favour of experiments which can be completely controlled and mathematically evaluated, and we all know how successful they have been in the physical sciences. What we have no right to do, and what so many people have hastily done, is to assume that they must be equally successful in psychical research. In psychical research, the method which is completely adequate in physics can only be applied to border-phenomena. It cannot be carried right through the subject. Artificially simplified conditions can be obtained on the periphery; but we cannot go on simplifying situation after situation until we get to the heart of the phenomena. Also what we discover by examining the periphery does not appear to be representative of what happens further in. To generalise from peripheral evidence, as Professor Rhine does in his article, is to plunge headlong into errors.

Professor Rhine makes the startling statement that "there is at the moment no adequately reliable case for telepathy". He appears to mean that statistical evidence provides no adequately reliable case for telepathy; but he has so over-estimated the importance of statistical evidence, and under-estimated the importance of qualitative evidence, that he ignores the latter altogether.

If we turn our attention for a moment from the advantages of controlled, statistical experiments, and think instead of the kind of material to which these experiments are confined, we shall see things more clearly. That material consists of occasional faint, feeble and sporadic paranormal impulses interjected into a series of pure, conscious guesses. These faint impulses are slipped in here and there. But for them, the experiment is one in normal psychology. There is the least possible interference with normal conscious processes—just a flickering infiltration from time to time. That is precisely why the experiment is controllable. Introduce conditions under which the paranormal element becomes strong enough to reveal something of its true nature, and it at once becomes spontaneous as well. Then the experimenter's power of control is diminished and mathematical estimation of results becomes extremely difficult if not impossible. The choices before us are two. (1) We may rely chiefly on qualitative research and observation for our knowledge of the paranormal, using statistical experiment as an auxiliary to elucidate special features and to act as a cast-iron hinge of indisputable evidence. (2) We may rely solely on statistical evidence, condemning ourselves to remain on the fringe of the paranormal, thereby building theories about it based on a total misapprehension of the facts. Professor Rhine in his article leads the way towards the latter.

The fact is that the evidence for telepathy consists of three branches: (1) spontaneous items of evidence, (2) evidence occurring in trance and automatic writing, (3) experimental evidence, which is not entirely statistical. (1) There are hundreds of cases in which the straightforward explanation is that they are telepathic in the sense of resulting from some kind of inter-mind relation (although we do not know fundamentally what telepathy is). Why, if someone sees a vision or hears the voice of a distant person, should it be supposed that this is done by the clairvoyant perception of material objects? There is nothing whatever to suggest it. (2) Or, if, at a trance-sitting, the sitter obtains an accurate description of some

past incident in the life of a dead friend, or obtains a reproduction of the mannerisms of that friend, why should this be put down to clairvoyance? How are the cross-correspondences to be explained by clairvoyance, and why should the attempt be made? And the masses of apparently telepathic information contained in automatic writing—why attempt to torture this into evidence for clairvoyance? Professor Rhine does not attempt to show how or why. He merely says that if the telepathic explanation is preferred, this is "plainly not a matter of the weight of the evidence"! Workers in psychical research have been so hypnotised by the success of the completely controlled experiment in physics and in normal psychology that they are blind to the sixty years' accumulation of non-statistical evidence which lies before their eyes.

Spontaneous cases of telepathy cannot be explained by clairvoyance, even if precognition is added to it, because the percipient in such cases is unaware that extra-sensory perception is in progress. Being unaware, there is nothing to guide his clairvoyant faculty towards what Prof. Broad calls the "cognitum". There is no reason why an unassisted clairvoyant faculty should seize upon the contemporary cognitum rather than upon any other contemporary event which interests the percipient. Even if we add precognition to clairvoyance, the same applies. There is no reason why the percipient should seize upon the subsequent record of the relevant event rather than upon any other document or record which will enter his normal cognisance in the near future, such as a letter or newspaper article or a future page of his novel, unless telepathy is there to guide him. Indeed, if Prof. Rhine's hypothesis were true, sensitives would frequently precognise such documents. But they do not.

Again, the hypothesis becomes an obvious absurdity when we consider the record of a case of telepathy which runs into several words, for it assumes that this record is read by the percipient with complete verbal accuracy. There is no evidence for anything like a completely accurate faculty of precognition. If it existed, sensitives would be able to spread before us a complete map of the future. Card-guessing is too restricted an experiment to show this absurdity, and Prof. Rhine has blinded himself by the facts by considering only card-guessing. He has actually been led by this self-imposed blindness to put forward a general hypothesis which is contradicted by a large part of the evidence. His view of the whole field of paranormal phenomena is out of focus.

It is profoundly to be hoped that investigators in psychical research will restore some measure of balance and perspective to the subject by turning to neglected lines of qualitative research. They alone are to any considerable degree informative, because the kind of paranormal event which is amenable to statistics is too restricted in character to tell us much about the nature of the elusive faculty of paranormal cognition.

I wish to emphasise that this is not a personal attack on Prof. Rhine, who has always been most willing that his work should be freely criticised. It is a protest against a point of view which is rapidly gaining ground amongst workers who have failed to look all round the subject and take its measure before applying to it the methods of physics. The result is that they have formed a completely false perspective.

V. DISCUSSION OF PROF RHINE'S PAPER AND THE FOREGOING COMMENTS UPON IT

BY C. D. BROAD

THE editor has submitted to me the proofs of Prof. Rhine's paper, together with the observations upon it made by Dr Hettinger, Dr Thouless, Mr Tyrrell, and Mr Whately Carington, and has asked me to make my own comments on the former in the light of the latter.

Preliminary Definitions. I shall begin by defining certain terms which I shall use in what follows. (1) A person, in so far as he is being tested in an experiment for the power of paranormal cognition or action, will be called a *Subject*. (2) The person who is conducting such an experiment will be called the *Experimenter*. (3) The event or thing or state of affairs which the subject in such an experiment is trying to cognise parapsychically will be called the *Target*. (4) If the subject succeeds in cognising a certain event or thing or state of affairs, whether that was his target or not, the latter will be called the *Cognitum*. (5) If the target or the cognitum should be a thought or other experience or a disposition in the mind of a certain person, that person will be called the *Subjective Container*.

The same person might happen to play several of these parts in an experiment. Suppose, *e.g.*, that an individual were making observations on himself in order to find out whether he could foresee to a significant extent what his experiences would be in certain assigned future circumstances. Then he would be at once the subject, the experimenter, and the subjective container.

Professor Rhine's main Contentions. Using this terminology, we may, I think, state the main contentions in Prof Rhine's paper as follows. (1) There is adequate experimental evidence for the occurrence of paranormal cognition in cases where (i) the cognitum is something which is *in principle* capable of being perceived at some time by normal sense-perception, *i.e.*, is an external physical thing or event, but (ii) it *in fact* never has been and never will be normally perceived or inferred either by the subject himself or by anyone else.

(2) There is at present *no* adequate experimental evidence for the occurrence of paranormal cognition in cases where (i) the cognitum is a thought or other experience in the mind of some subjective container, and (ii) there never has been or will be a physical thing or event which is either (a) the object of that experience, or (b) a record which would give rise to that experience if cognised and interpreted by the subject, or (c) a datum from which the subject could acquire that experience by normal inference or by association if he were to cognise it.

I shall describe cases which answer to the conditions laid down in Proposition 1 as "cases where telepathy is excluded", and those which answer to the conditions laid down in Proposition 2 as "cases where clairvoyance is excluded". So Proposition 1 asserts that there is adequate experimental evidence for the occurrence of paranormal cognition in cases where *telepathy is excluded*; and Proposition 2 asserts that there is *not* adequate experimental evidence for the occurrence of paranormal cognition in cases where *clairvoyance is excluded*.

(3) The evidence for Proposition 2 depends on the acceptance of Proposition 1 in its most extended form. Suppose it is granted that there is adequate experimental evidence that a subject can at a certain moment have paranormal cognition of a physical event that has not yet happened or of a physical thing that does not yet exist, but which will do so later, even though neither he nor anyone else will ever cognise that object by normal sense-perception or inference. Then obviously a great many successful experiments which seemed to be cases excluding clairvoyance have *not certainly* fulfilled that condition. Suppose, *e.g.*, that a record, either in speech or in writing, will be made afterwards; and that it is of such a nature that the subject, if aware of it, could infer from it that such and such an event has happened. Then it is possible that the subject was aware, at the time when he made his response, by clairvoyant precognition of the as yet unmade record. And, if so, it is possible that his cognition of the event which will afterwards be recorded is due to normal interpretation of this clairvoyant precognition of the subsequent record.

Legitimate and illegitimate Conclusions. Since such possibilities as these were not envisaged, it is not surprising that past experiments have not been designed to exclude them; and it is obviously desirable that new experiments should be designed with that object in view. It should be noted that, if paranormal cognition of an event is ever in fact accomplished by interpreting one's clairvoyant precognition of an as yet unmade record of it, we have a separation between the *target* and the *cognitum*. The target is the event; but this is cognised by normal interpretation of paranormally acquired data. The cognitum is the as yet unmade record. This is paranormally cognised, but it is not the target at which the subject was aiming.

Suppose that there is adequate evidence for paranormal cognition in cases where telepathy is excluded. And suppose that it should be found that, when experiments are done under conditions where clairvoyance is excluded, there is not evidence for paranormal cognition. Then the conclusions which could legitimately be drawn are the following. (i) In an experimental set-up of this nature, and with such subjects as have been used in the experiments, the presence of *clairvoyant* conditions is *both necessary and sufficient* to ensure a detectable amount of paranormal cognition. (ii) With the same qualifications, the presence of *telepathic* conditions is *neither necessary nor sufficient* to ensure a detectable amount of paranormal cognition. The following conclusions would be quite illegitimate. (i) That either of these propositions would hold good without the qualifying clauses with which they are prefaced. It would remain possible, *e.g.*, that either or both of them would break down in certain spontaneous cases or if the subjects were mediums or other persons in whom the power of supernormal cognition was highly developed. (ii) That, even when the qualifying clauses hold, the telepathic conditions are *causally irrelevant*. In the vast majority of the successful experiments neither telepathy nor clairvoyance was excluded. It would be quite illegitimate to argue that in these cases the simultaneous normal cognition of the cognitum by other persons, or the subsequent normal cognition of it by the subject, had nothing to do with the subject's paranormal cognition of it. As Dr Thouless points out, we have to consider conditions which

favour or check a phenomenon as well as those which are necessary or sufficient to produce or to inhibit it.

The Evidence for Propositions 1 and 2. As regards the evidence for Proposition 1, *i.e.*, that paranormal cognition has been experimentally established in cases where telepathy is excluded, I would make the following remarks.

(i) The evidence must be of a rather peculiar kind. In order to have reason to believe that paranormal cognition has taken place someone or other must have reason to believe that events corresponding to the subject's guesses have happened. But in order that telepathy may be excluded no-one must ever normally perceive or infer those events.

(ii) It seems to me that Prof Rhine's procedure in such cases is always of the following form. He infers that the subject must have *known* certain things, which are not then and cannot now be normally known by anyone, on the ground that he *did* certain things which he could not have done unless he had been guided by such knowledge. An example is provided by the shuffling experiments. The subject shuffled pack *A* and got it to agree with the target pack *B* to a significantly greater extent than might be expected by chance. This required something more than paranormal cognition of the arrangement of the cards in pack *B*, which he might have got by telepathic precognition. It required also paranormal cognition of the arrangement of the cards in pack *A* just before he made his last series of movements. For, unless he had known how the cards in *A* were then arranged, he would not have known how to shift them about in such a way as to conform to the arrangement of the cards in *B*. The argument is similar, *mutatis mutandis*, to show that paranormal cognition is involved in the dice-throwing experiments.

Now this kind of argument strikes me as somewhat naive. The position is as follows. The subject in each case is trying to bring about a certain spatial arrangement of physical objects, in the one experiment by handling them in the normal way and in the other by some paranormal action called "psychokinesis". The assumption which Prof Rhine makes is that the subject must know how they are arranged immediately before he interferes with them if he is to be able to take the appropriate action to secure the kind of rearrangement at which he is aiming. Now this is doubtless true of normal voluntary action guided by normal sense-perception or inference. But we have already thrown over the rules which we normally assume to limit human *cognition* so far as to allow that a person may have non-inferential knowledge of a physical event which has not yet happened and of which no-one ever has had or will have normal cognition. And we have already thrown over the rules which we normally assume to limit human *voluntary action* so far as to allow that a person can voluntarily affect the position and motion of a foreign body without either (a) direct handling, or (b) indirect manipulation through some kind of mechanism which he controls by direct handling. When two of the most fundamental principles or prejudices of commonsense have thus been rejected it seems to me a little simple-minded to assume that the one at present under discussion, which is so closely connected with them, can be relied upon as the premiss of an argument. For my part, if I am forced to accept things which are so shocking to my common-sense as precognitive clairvoyance and psychokinesis, I shall feel no confidence in any of the other limiting principles

which common-sense and ordinary natural science have always presupposed. And therefore I shall feel no confidence in the conclusion of any argument which takes one of these principles as a premiss.

I pass now to the evidence for Prof Rhine's Proposition 2, *viz.*, that paranormal cognition has not been experimentally established in any case in which clairvoyance is excluded. About this I would make the following remarks.

(i) Taking two of the best series of English experiments, I think we can say that (a) in the Tyrrell experiments telepathic conditions were *not necessary* to secure a significant degree of success, and (b) in the Soal-Goldney experiments telepathic conditions *were necessary* to secure a significant degree of success.

In the case of the Soal-Goldney experiments the utmost that Prof Rhine can suggest is that conceivably the telepathic conditions were necessary only in a *secondary*, and not in a *primary*, sense. That is to say, he suggests that perhaps what was necessary was the agent's *knowledge or belief* that the telepathic conditions were fulfilled, and not the fact itself. The suggestion is that, when this knowledge or belief is replaced by its opposite, this particular agent's power of paranormal cognition is inhibited so far as concerns the target at which he is aiming.

About this there are two remarks to be made. (a) The suggestion requires that the agent's power of paranormal cognition remains uninhibited in other directions. For we have to assume that he knows paranormally when the experimenter switches over in the course of an experiment from the telepathic to the non-telepathic conditions. (b) The utmost that can be said for the suggestion is that it is just logically possible. It is not, so far as I know, *inconsistent with* the reported facts that all the successes should have been due to pure precognitive clairvoyance; that the fulfilment of the telepathic conditions should have been primarily irrelevant; and that the failure when the telepathic conditions are absent should be due merely to the inhibiting effect on the subject of his purely clairvoyant knowledge of their absence. But the suggestion is far-fetched to the highest degree; and, so far as I am aware, there are no positive grounds for thinking it likely. There is one and only one motive for making it, *viz.*, a praiseworthy desire to stimulate experimenters to devise experiments in which telepathic conditions are present and clairvoyant conditions completely absent, in order to find out whether paranormal cognition can then take place.

(ii) I think that the difficulty of ensuring the complete absence of relevant clairvoyant conditions has been in one respect exaggerated. It seems to be forgotten that it is useless for the agent to have clairvoyant cognition, whether simultaneous or precognitive, of a set of sounds or marks which are *in fact* symbols for a proposition unless he also *knows* how to interpret the symbols. Suppose, *e.g.*, that the records of an experiment were made in Sanskrit, and that the agent, like most of us, does not know that language. Then he may have as much purely clairvoyant knowledge and foreknowledge as you like of these records; but it will not help him in the least unless he can tap the mind of some person who knows what the sentences mean.

For this reason it seems to me, *e.g.*, that Mr Whately Carington's remark

that the clairvoyant explanation is never theoretically eliminable because the subject might be held to be clairvoyantly aware of the brain-states, etc., which accompany a thought in the mind of a subjective container, is needlessly pessimistic. Such knowledge, so far as I can see, would not be of the least use to the subject unless supplemented by knowledge of the laws of correlation between brain-states and thoughts; and these laws *ex hypothesi* could not be known by pure *clairvoyance*.

(iii) Suppose there were a case in which a person has a mistaken belief about the details of a certain event; and suppose that a subject has paranormal cognition, not of the actual details of that event, but of the features which that person mistakenly believes it to have. This would *prima facie* be a case of telepathy, simultaneous or precognitive, and not of clairvoyance. Some well-attested cases of precognition fall, I think, under this heading.

Prof. Rhine on Spontaneous and Mediumistic Cases. I think it would be breaking a butterfly upon a wheel to take very seriously the remarks which Prof Rhine throws out under this heading. Only a person with an extensive knowledge of the literature of the subject, who had gone very carefully into the details of a large number of well-attested cases of various kinds, could make any useful pronouncement on whether any of them occur under non-telepathic conditions and any of them under non-clairvoyant conditions. I see no evidence that Prof Rhine has the necessary equipment or has taken the necessary trouble to qualify him to pronounce on such questions. And, to do him justice, I do not think that he would seriously claim in the present paper to have done more than suggest that such an enquiry might be worth while.

I think that the position is roughly as follows. The founders of the S.P.R. considered that telepathy had been established by experiment with normal persons under normal conditions. They therefore felt justified in treating it as a *vera causa*, and they felt that it ought to be pressed as far as it would go in explaining spontaneous phenomena and those occurring in presence of mediums. Only when the hypothesis of an extended telepathy among the living had been tried and had been found inadequate should communication from the spirits of the dead be admitted as an hypothesis. If that methodological principle was ever sound, it remains so still; but it needs to be modified in detail in the following way. We must substitute the wider phrase "paranormal cognition" for the more special phrase "telepathy"; we must recognise that there is now experimental evidence for precognition and for pure clairvoyance; and we must admit that, when these possibilities are allowed for, it becomes uncertain whether many well-attested cases of paranormal cognition which were counted as instances of telepathy really were so. I doubt whether this does much either to strengthen or to weaken the already existing case for the spiritistic hypothesis; but only a detailed investigation of a wide selection of the best cases would justify one in making any confident pronouncement on this point.

Some Points in the other Papers. The following remarks are perhaps just worth making.

(1) I am very much in sympathy with Dr Thouless's approach by way of making a systematic analysis of the conditions under which paranormal

cognition takes place or fails to take place. We must remember, however, that conditions which are necessary with one subject and one experimenter might prove to be superfluous or even detrimental with another subject or another experimenter.

(2) I am puzzled to know whether Mr Tyrrell really thinks that there is any known alternative method of discovering the laws of phenomena beside that of experiment. I understand by that method the attempt to analyse and control conditions and to vary them one at a time. There is obviously nothing in the experimental method as such which compels us to confine it to the investigation of feeble instances of paranormal phenomena. Our trouble is that we do not at present know how to produce at will strong and persistent instances. Unless and until we can do so we shall remain in the position of persons whose observations on electrical phenomena were confined to (i) the feeble effects producible by rubbing glass with catskin, and (ii) occasional thunder-storms. We shall get going if and only if we can devise means, analogous to the Wimshurst machine, the electric cell, the intensity-coil, and so on, of getting reasonably strong effects whenever we want them. If ever and whenever we do this we shall be able to carry out experiments in psychics analogous to those which we now do in physics. But until this is possible I do not believe that we shall make very much further progress. Meanwhile we must do our best with our regular catskin and our occasional thunder-storms, and there is nothing to be gained by pretending that either is the only method or that either alone or both together offer any very bright prospects.

(3) Mr Whately Carington raises the following theoretical difficulty about pure clairvoyance. It is meaningless to say, *e.g.*, that a person perceives a red spot on a white card in the dark. For to say that a card which is in the dark *is* white and *has* a red spot on it means simply and solely that any normal person *would* have visual sensations of a certain kind *if ever and whenever* he were to view that card in white light. Now a conditional proposition, such as this, is not an object which could intelligibly be said to be perceptible. Suppose, on the other hand, we say that what is clairvoyantly perceived in the dark, is not this conditional proposition, but a certain persistent property which is the categorical ground of the conditional proposition. Then, Mr Whately Carington asserts, this is meaningless because such a property by hypothesis could never be perceived by any of the senses. And what is in principle incapable of being perceived is a mere fiction.

If I have understood this argument correctly, it seems to me to beg the question. Either it is or it is not conceivable that there should be direct acquaintance with particulars by other means than ordinary sense-perception. If we say that it is not conceivable, then we rule out the possibility of clairvoyance by definition. If, on the other hand, we admit that it is conceivable, we must widen our criterion of "existence" and say that what exists must in principle be capable of being perceived *either* by the senses *or* clairvoyantly. But in that case we cannot maintain the present objection to saying that what the clairvoyant perceives in the dark is the persistent categorical ground of a certain conditional proposition about normal visual perception. Certainly this is in principle incapable of being perceived *by the senses*; but that is only one of the two alternatives which the extended principle admits.

VI. NOTES ON DR RHINE'S "TELEPATHY AND CLAIRVOYANCE"¹

BY DENYS PARSONS

RHINE has not given "spontaneous" cases the attention they deserve. Some of these support telepathy and some support clairvoyance. In the latter class we have the well-known case of Mrs Titus, which finally convinced William James of the reality of psychic phenomena (Richet "Le Sixieme Sens", p. 55). A young girl disappeared. Two or three days later Mrs Titus who lived about 5 miles away, dreamt that she saw the body in a particular spot. Later she explained to a diver that the body was wedged in a certain position under a bridge. The diver went down and found the body exactly in the position described. A similar case (*Four.*, *S.P.R.* 1889, IV, 93) deals with the finding of the bodies of two men and their dogs.

To explain these cases by telepathy one could argue that the message was sent before death and remained latent for some time in the percipient's subconscious mind. Clairvoyance gives a more direct explanation, but the survival hypothesis will also fit.

Particularly impressive as evidence for clairvoyance are cases in which inanimate objects are located in unexpected places. Dowsing comes into this category, although in my opinion the evidence for this phenomenon cannot yet be considered satisfactory.

Powerful support for telepathy is provided by Soal's "John Ferguson" case ("A Report on Some Communications received through Mrs Blanche Cooper"—*Proc. S.P.R.* 1925, XXXV). Soal's private conjectures about a purely fictitious character of his own invention were confirmed at his next sitting with the medium, often with considerable accuracy and detail. Referring to these experiments Soal says: "No written notes were made of my conjectures about 'John Ferguson' until after I had recorded the medium's confirmatory statement. At the time I had not the remotest idea of any future publication. If therefore these conjectures were accessible to clairvoyance it could only be a kind of 'precognitive' clairvoyance."

But it is highly probable that Soal would not have made any notes if the medium had been wrong, therefore the medium had to be right *before* the records which would permit precognitive clairvoyance could come into existence. Since Rhine has used an exactly analogous argument to support *clairvoyance* in Screened Touch Matching of card decks, he can hardly deny its validity here as a strong argument for telepathy.

In discussing the Soal and Goldney experiments Rhine argues that the fact that only certain persons were successful agents is only *suggestive* of telepathy, since the subject's attitude or belief is a great factor in determining success or failure. But it was not quite so simple; the significant fact from the point of view of telepathy was that different agents caused not major differences in scores but major differences in the *nature* of the displacement effects.

¹ The following comments were received after Dr Broad had written his summing-up, and therefore are not included in his observations. *Hon. Ed.*

Soal and Goldney's subject failed when the conditions began to approach those of clairvoyance. Rhine argues that this is not necessarily good evidence for telepathy since "the mere fact that the subject believed his ability was telepathy" could have inhibited his success. I must put it on record that Shackleton was equally confident in his ability to demonstrate clairvoyance with the coloured counters in my own apparatus. (The results of both telepathy and clairvoyance tests with B. S. agreed with chance expectation.)

Now Shackleton failed in clairvoyance and succeeded in telepathy even when he did not know which of the two conditions the experimenters were using. Rhine argues that he might have known (clairvoyantly) which technique was being used. But is it not strange that he should get 100% success in detecting a change in technique, considering that his true cognitions of the card symbols never rose above 30%? (Rhine's reply to this is that there may have been some inherent factor in the *clairvoyant* conditions themselves which caused the failure.)

Turning now to the American work, I consider Rhine has made out an excellent case for clairvoyance, and if the empirical facts are accepted, I do not think that it profits us much to argue that clairvoyance is a contradiction in terms or that there is no place for it in our philosophy.

DR. J. B. RHINE'S REPLY

It was a generous arrangement which permits me to reply to the comments given above. First, it should be said that, if my article had to be abridged in the interests of space, a better condensation could hardly have been made. I am naturally pleased, too, that this paper is regarded as worthy of reproduction in the S.P.R. *Proceedings*, although as an experimenter I would naturally not have chosen a non-experimental article such as this to represent me in your pages.

The aim of my discussion was mainly to urge that experiments of better design be directed toward the problem of the occurrence of telepathy. As it turned out, no one, I believe, has questioned the need for these. There is disagreement only on the question of how badly we need the new experiments. By far the most important development resulting from the article is the fact that Professor Thouless has already begun a newly designed experiment in pure telepathy. His procedure seems to be an excellent one. Here at Duke University we think we have now found it possible, as a result of group thinking stimulated by these discussions, to apply an independent check on the accuracy of the experimenter's observations, and thus to put the test on a par with the best clairvoyance tests. In using this procedure the experimenter communicates his code to an assistant through subjective associations based upon common memories and having no objective link that could be traced by clairvoyance even by precognitive or retrocognitive clairvoyance.

Professor Broad's article has a number of suggestions likely to be of value in experimental work. One of these is his remark about the uselessness for clairvoyance of objective signs. He uses the illustration of the

records of an experiment being made in Sanskrit, if the agent does not know that language. Also his comment on Mr Carington's remark about the clairvoyance of brain states appears to take care of a troublesome aspect of the telepathy problem.

One could wish that so clear and effective a statement of the possible combination of the condition for ESP experiments as that given by Dr Thouless had been before our minds back through the years of research on these problems. But it should even yet be of great help in future research.

There is much that I have found of interest and value in the comments on my article, and which I should like to discuss at length with the commentators; we should, I believe, find much general agreement. For example, I expressed in my first book, published in 1934, a view of the unity of telepathy and clairvoyance, such as that described by Mr Carington. (I do not know how he is led to ascribe to me so divergent a view as he does.) But I have confined myself here to the main objective of my article, to what I hope will be considered a major research topic until the issue is settled, the unambiguous experimental testing of the telepathy hypothesis.

ATTEMPTS TO DETECT CLAIRVOYANCE AND TELEPATHY WITH A MECHANICAL DEVICE

BY DENYS PARSONS

THE experiments described were begun in May 1943. An apparatus was constructed which can be adapted to test either pure clairvoyance or GESP that is, undifferentiated extra-sensory perception.

The task set is to guess the colours of small counters, blue, red, white, green, and yellow. The apparatus consists of a wooden box, $6\frac{1}{2}'' \times 5'' \times 3''$, with a chimney $14''$ high. (See photographs). The box contains a rotating tray with five removable compartments coloured blue, red, white, green, and yellow. The tray is connected by a chain drive to a selector-pointer; by moving the pointer each compartment in the tray can be brought successively directly underneath the chimney, and the five positions of the pointer are marked with the corresponding colours. Inside the wooden casing of the chimney is a glass tube, internal diameter $0.68''$. It can hold 200 counters, diameter $0.64''$, thickness $0.05''$. At the lower end of the tube is a mechanism similar to that in a coin-operated machine, for delivering the counters one at a time into the tray below. The lever, operated by the left hand, when pulled towards the body delivers one counter, and when pushed back receives the next from the tube.

A peep-hole is cut in the side of the chimney furthest from the percipient through which an agent can watch the counters as they near the bottom of the tube and during the actual sorting. For clairvoyance experiments this peep-hole is covered with a strip of metal. By means of eight screw-

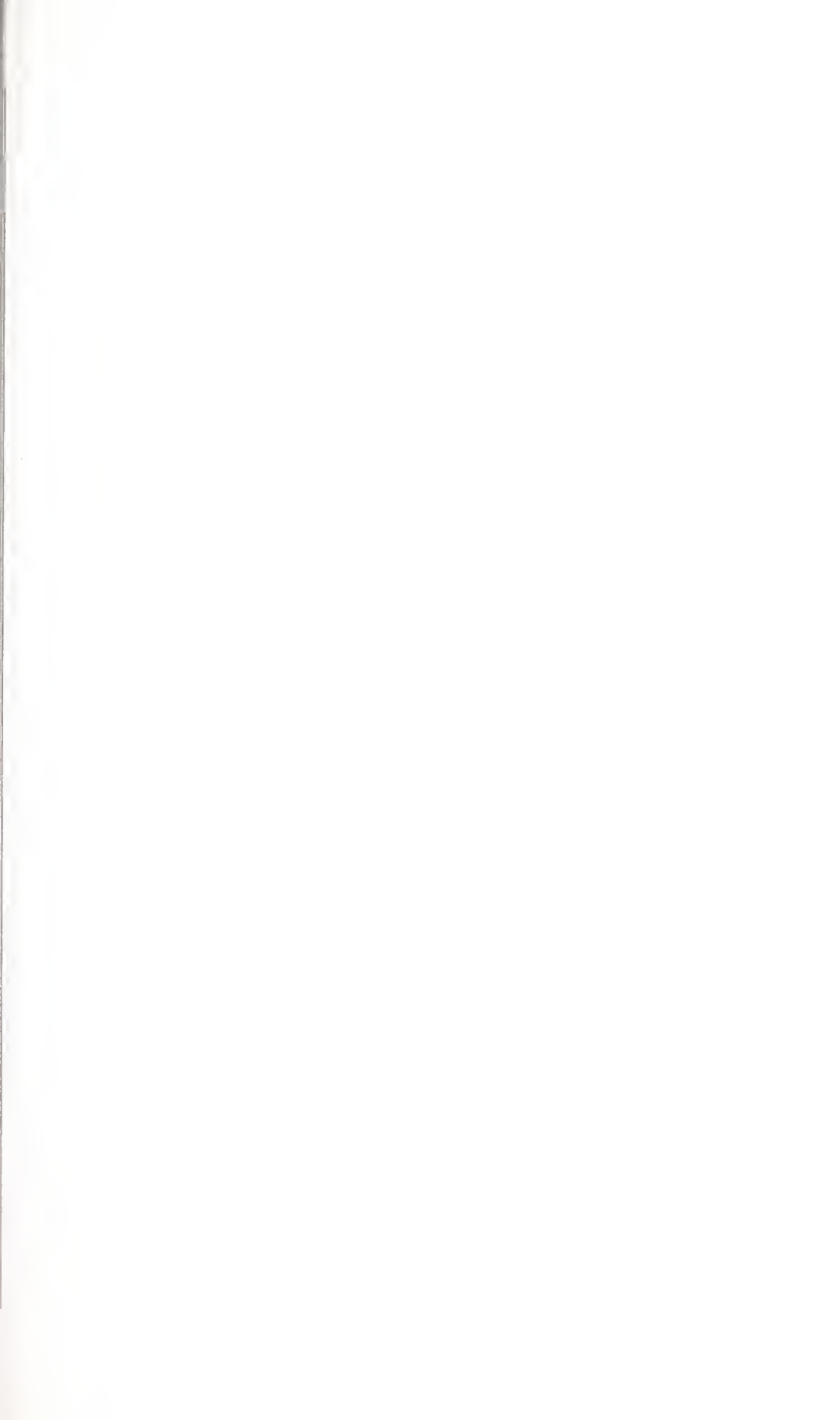
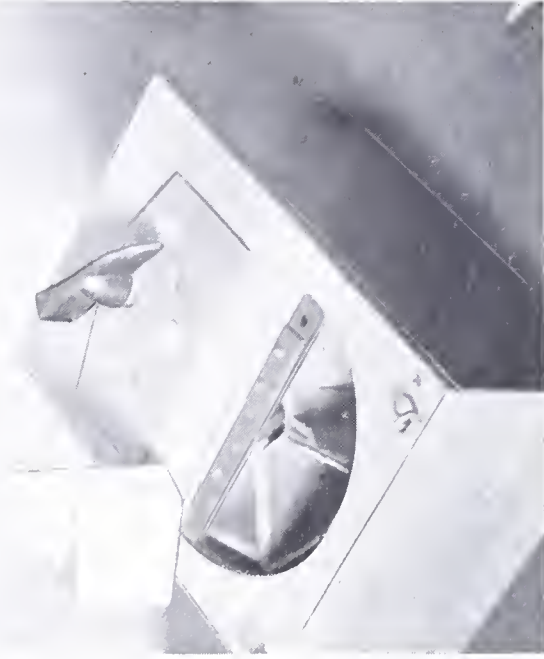


PLATE I



APPARATUS FOR TESTING ESP

1. The lowermost counters in the tube can be seen by an agent through the spy-hole (A). The spy-hole is closed

2. The rotating tray contains five removable compartments, coloured blue, red, white, green and yellow, corres-

eyes (one of which can be seen in the photograph) through which a tape is passed, the box can be effectively sealed so as to be reasonably fraud-proof, and may be given to a percipient to take home. The percipient can thus make clairvoyant trials at his leisure, a few in the morning, a few more at night, when he feels in the mood.

The apparatus is prepared for use in clairvoyance tests according to a rigid routine. The quantity of counters decided on (50, 100, or 200) is placed in a 16 oz. narrow-necked glass bottle. From this moment on until the final counting of hits the experimenter neither sees nor handles the counters. He retires alone to an adjoining room and sits down at a table under which the apparatus is placed. Leaning well forward over the table he holds the bottle underneath it in a horizontal position. Then, with fingers and thumb loosely round the neck of the bottle, he gives it 100 rapid half-turns with the other hand to shuffle the counters. Still keeping the bottle under the table, he removes the cap and delivers the counters into the chimney hopper by slowly rotating and shaking the bottle over it. The chimney is then corked up and the apparatus may then be lifted up and taken back to the room where the percipient is waiting. The percipient may sort the counters himself or he may call out his guesses to a neutral operator. (The latter procedure was rarely used.)

After the sorting the apparatus is opened¹ and the number of successes is counted (*i.e.* the number of blue counters found in the blue compartment plus the reds in the red, etc.). The procedure satisfies the conditions for clairvoyance.² Neither the experimenter nor the percipient, nor any living thing knows, or ever will know what was the order of the counters in the tube, or the result of any individual trial. The only figures obtained are the total number of trials and the total number of successes. There can be no question of mental transference between two people, whether precognitive or otherwise.

At first runs of 200 counters were given, but when only chance results were obtained it was decided to cut down the number of trials per run in case fatigue effects were neutralising initial successes. Table I gives the number of runs of 200, 100, and 50 or less.

TABLE I

Counters per run - - - -	200	100	50
No. of runs (Clairvoyance) - - -	50	55	9
(Telepathy) - - - -	22	10	57
Totals - - - - -	72	65	66

¹ In order to ensure that nothing can be deduced by noting the colours of the counters uppermost in each compartment at the end of a run, an additional safeguard is introduced. The apparatus is replaced under the table and the contents of each compartment in turn are emptied into a small box which is then shaken up a few times before exposing the counters.

² I do not wish to imply here that if significant results were obtained under these conditions, it would provide evidence of a straightforward faculty analogous to ordinary vision.

The machine enables one to test Clairvoyance and Telepathy under almost identical conditions, the difference being that for Telepathy the peephole is opened and an agent can see the counters during the sorting. The sort of results hoped for were either :

(a) the subject scores significantly on Telepathy and Clairvoyance.
or (b) the subject scores significantly on Telepathy but gets only chance scores on Clairvoyance, or *vice versa*.

Unfortunately *all* results were in accordance with chance.

Schmeidler ("Predicting good and bad scores." *J. American Soc. Psych. Res.* 1943, 37, 103-110, 210-221; 1945, 39, 47-49) divided percipients into two groups: those who believed they could succeed (the "sheep"), and those who expected to fail (the "goats"), in ESP tests. The sheep scored positively and the goats negatively. The results of the sheep were independently significant and the difference between the scores of the two groups was highly significant. This procedure was followed with the 44 percipients of the present series of experiments. At the conclusion of the experiments the percipients were divided into sheep and goats, without reference to their scores, as accurately as was possible from a personal estimate of their character and philosophy of life, and from memory of the attitude they had shown to the experiments. (Most of the percipients were friends or acquaintances.) The experimenter classes himself as a sheep, but lists his own results separately since they far outnumber those of any other individual.

TABLE II: Results

(E = Expected on chance basis O = observed)

		Clairvoyance		Telepathy	
		Trials	Successes	Trials	Successes
Experimenter	-	5,452	E 1,090	1,000	E 200
			O 1,062		O 194
Other Sheep only (25)	-	5,812	E 1,162	4,646	E 929
			O 1,163		O 959
All Percipients (44)	-	15,859	E 3,172	8,348	E 1,670
			O 3,171		O 1,674

Nineteen percipients were tested for Clairvoyance only, ten for Telepathy only, and fifteen for both. The percipients included three children to whom rewards were offered for high scores, but without success.

In the hope of finding significance in decline effects, the first runs of each of the 44 subjects were summed (Table III).

TABLE III : First runs only.

	Clairvoyance		Telepathy	
	Trials	Successes	Trials	Successes
Sheep only - -	2,233	E 447	915	E 183
		O 481		O 193
All percipients -	4,158	E 832	2,766	E 553
		O 879		O 553

Dr Thouless pointed out to me that if the clairvoyance and telepathy totals for sheep were pooled, a just significant result is obtained. (χ^2 3.87, $p=0.05$). Odds of 20 to 1 against chance cannot be regarded as more than suggestive, but a watch will be kept on first runs of sheep in future experiments. Further investigation showed that there is no significant difference between the first and second run totals of sheep, nor between first and fourth run totals, but there was a significant difference between first and last run totals (C.R. = 2.3). Unfortunately this significance is almost certainly due to "optional stopping" after a low-scoring run.

Mr Whately Carington kindly made a full analysis of the records of one percipient, which showed a pronounced decline over sixteen runs, but he was unable to extract any significance from them.

The failure to get any positive results is disappointing. Among the percipients were two or three professional mediums and also Basil Shackleton who was tested soon after the end of Soal's experiments. On one occasion the apparatus was lent to Mr G. N. M. Tyrrell for a fortnight. He kindly carried out telepathy tests with Mrs Heywood and Miss G. Johnson (who was his original percipient for his electrical machine, Proc. S.P.R. 1936, XLIV, 99-167), but the results were very close to chance.

If any member wishes to see the apparatus or to make a copy of it for his own use he is assured of the fullest co-operation. A new series of experiments has been started in which percipients are offered rewards for high scores on a graduated scale.

SUMMARY

A mechanical device for investigating ESP under conditions of Clairvoyance and of Telepathy has been devised. No evidence of ESP was found in 24,000 trials with 44 subjects.

THE TRIAL OF MRS HELEN DUNCAN

BY DONALD J. WEST

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An acknowledgement is also due to the Council of the London Spiritualist Alliance, who permitted the writer, as a representative of the Society for Psychical Research, unrestricted access to their private collection of documents pertaining to Mrs Duncan.

The two excellent photographs showing Mrs Duncan with mask and "cheese-cloth" drapery are reproduced through the kindness of Mr Harry Price.

We are indebted to Mr C. E. Bechhofer Roberts for permission to quote extracts from his book *The Trial of Mrs Duncan*, Jarrolds, 1945.

Mr J. B. McIndoe has kindly allowed us to quote from his article on "The Phenomena of Mrs Helen Victoria Duncan".

Part of a letter published in *The Two Worlds* is reproduced by the courtesy of The Two Worlds Publishing Co. Ltd., Corporation Street, Manchester.

"THE TRIAL OF MRS DUNCAN": REVIEW.

THE third book¹ in the "Old Bailey Trial" series, consists of a verbatim report of the fascinating and sensational trial of the medium Helen Duncan. Between its covers is sufficient material to occupy a serious psychological research student for many months.

The interest of the Duncan trial is threefold. Firstly, it contains valuable data on the problem of the Duncan mediumship. Secondly, it constitutes a first-rate study of human testimony in relation to psychic phenomena. Thirdly, the trial is directly concerned with the law relating to psychic phenomena, with which it is our duty to be familiar.

There are, therefore, three important problems to be considered in the light of the Duncan trial, and they are dealt with separately in the three brief articles immediately following this review. It is hoped that readers of these articles will be encouraged to obtain the book under review and study it for themselves.

The report of the trial occupies over three hundred pages and constitutes the major portion of the book. It is introduced by an editorial, in which the course of the trial is summarised and discussed, apparently from the point of view of the lay sceptic. A report of the judgment at the Court of Criminal Appeal, to which the case was eventually taken, is included, and a brief historical note on the Old Bailey by Helena Normanton appears at the end. The book is illustrated by photographs of the chief characters concerned.

I. HELEN DUNCAN : A BRIEF HISTORY OF HER MEDIUMSHIP

Helen Victoria Duncan is unquestionably the most famous member of that rare species, the contemporary British materialising medium. It would be a defiance of our proverbial national pride not to give her a place in the *Proceedings*.

Mrs Duncan was born in Callander, Perthshire, in 1898. She is of working-class antecedents and married a cabinet-maker, who blessed her with a large family and then retired from work for many years.

Scotland was the scene of Mrs Duncan's earliest exploits, but her fame inevitably spread and soon reached the pages of the London Spiritualist journal *Light*.

Major C. H. Mowbray had some sittings with the Duncans in Scotland, and wrote an account for the British College of Psychic Science in London. He was of the opinion that she was fraudulent.

INVESTIGATION AT THE LONDON SPIRITUALIST ALLIANCE

The first systematic investigation of which we have a record is that carried out by the Research Department of the London Spiritualist Alliance in the course of some fifty sittings extending from October 1930 to June 1931. The investigators included Dr Fielding Ould, Sir Ernest

¹ *The Trial of Mrs Duncan*. Edited, with a Foreword, by C. E. Bechhofer Roberts. London: Jarrolds, 1945. 12s. 6d.

Bennett, Lord Charles Hope, Miss Mercy Phillimore, (Secretary to the L.S.A.) and Dr Rust. They were not all present at every sitting. Occasional visitors included Sir Oliver Lodge, Dr E. J. Dingwall, Mrs K. M. Goldney and other S.P.R. members.

Two interim reports were published in *Light* (Feb. 28th and May 16th, 1931) which were favourable to the mediumship, but the third and final report (*Light*, July 17th, 1931) was written in a completely different tone and accused Mrs Duncan of fraudulent practices. The Committee had come to the conclusion, as the investigation proceeded, that Mrs Duncan resorted to fraud, but they were never agreed as to the proportion of fraudulent to genuine phenomena. By the kindness of the Secretary and Council of the L.S.A., we have been allowed to study the original accounts of these Duncan séances and to see the specimens of purported ectoplasm which were obtained.

At a typical Duncan séance the sitters are seated in a single or double crescent with the medium in a corner of the room that is curtained off and known as the cabinet. The room is illuminated with red light, sometimes fairly strongly, but inside the cabinet there is deep shadow. Suspicious as these conditions are, Mrs Duncan cannot be held responsible for them, since they are traditional among physical mediums.

Mrs Duncan is stripped, searched, dressed in specially designed séance garments and led to her chair within the cabinet. Mr Duncan is usually somewhere at the back of the room, behind the sitters, operating a gramophone.

Mrs Duncan passes into her trance state and the voice of Albert Stuart, her spirit control, is heard. Albert is said to have been a pattern-maker of Dundee, who emigrated to Sydney, Australia. There appears to be no evidence that Albert's voice is independent of the medium's larynx. His function is to direct the proceedings, and no sitter may move, or touch the manifestations, without his permission.

The phenomena consist of purported ectoplasm and materialisations. The ectoplasm is in the form of sheets and coils of white material, seen draped about the medium when the cabinet curtains are pulled apart. On occasion the medium walks right out of the cabinet with yards of this strange material draped all over her and trailing in a train behind her. At the L.S.A. the materialisations were white shapes, dimly seen through the gap between the curtains and roughly approximating to human forms, but with faces absent or else hardly recognisable.

The main problem of the Duncan mediumship is how the white material gets into the cabinet when medium and cabinet have been searched meticulously beforehand. The sceptic's answer to the Duncan ectoplasm is that the stuff consists of fine-mesh material, that is cheese-cloth or butter-muslin, which is capable of being compressed into comparatively small volume. The tulle is swallowed by the medium prior to a séance, regurgitated under cover of the cabinet curtains when ectoplasm is required, and swallowed again at the end of the sitting.

This explanation sounds so fantastic that unless there had been some very good supporting evidence it need hardly have been taken into consideration. Anyone who has had experience of the time and effort required to swallow a narrow rubber tube for the purpose of a stomach examination

must marvel at Mrs Duncan and her yards of cheese-cloth. Although choking noises have been reported at Duncan séances, often enough the regurgitation must have been accomplished swiftly and silently.

There is, of course, the possibility that the medium could have evaded the search and produced the cheese-cloth without regurgitation. Doubtless the search was sometimes performed by modest persons, who might be somewhat perfunctory, in which case the packet of 'props' could be concealed by passing it quickly from one part of the body to another. The medium could never be sure of this, however, and she could never be certain that a vaginal and rectal examination would not be requested. Moreover, the methods of search adopted at the Harry Price sittings have been described to us in some detail, and they appear to preclude the regular practice of this type of fraud.

Another possible explanation, which would do away with the necessity for assuming regurgitation, is that a confederate passed the cheese-cloth to Mrs Duncan during the course of the séance. Mr Duncan's continual presence is suspicious. The only time Mr Duncan was not present during the London investigations at the L.S.A. and the National Laboratory was at one of the Harry Price sittings, and on that occasion no cheese-cloth appeared. However, it is only fair to state that there may have been other reasons for its absence on this occasion. Moreover, having regard to the good lighting conditions at some of the séances, and the fact that Mr Duncan was at the back of the room, this explanation also seems to be ruled out. Whatever method of fraud Mrs Duncan used, if fraud it was, was absolutely dependable, for hardly a sitting went by without some 'cheese-cloth' appearing.

At some of the L.S.A. sittings 'Albert' left behind specimens of 'ectoplasm'—five in all—for the investigators to examine. The last specimen, obtained on April 10th 1931, was cut away as it protruded a few inches out of the medium's mouth. At this séance, the medium had been searched as usual and dressed in a one-piece suit with neck, arms and ankles tied with tapes and sealed to her chair. She wore gauntlets fastened at the wrists with surgical tape. Two of the earlier specimens were found to be "paper, cloth, and such everyday materials", mixed with an organic substance in every way similar to white of egg. The last two specimens were pads of surgical gauze soaked in resinous fluid. They were identical with a sanitary towel which Mrs Duncan left behind one day in a dressing-room which only she had used.

Mrs Duncan also gave the L.S.A. specimens of abnormal urine, which were loaded with absurdly large quantities of albumen, said to be due to the effect of the materialisation phenomena on her metabolism. Shortly after this, Mrs Duncan had occasion to attend St. Thomas's Hospital, where her urine was tested and found to be normal.

When it is remembered that these adverse findings are recorded by a Spiritualist Association, there can be no doubt that Mrs Duncan resorts to fraud of one sort or another on certain occasions.

To return to the regurgitation hypothesis, the L.S.A. investigation affords the sceptic several pieces of evidence that this was the method of fraud employed. Although it was not photographed, the appearance and feel of the 'ectoplasm' was compatible with the assumption that it was

ordinary cheese-cloth, and under the conditions of some of the sittings regurgitation may have been the only method whereby such material could have been introduced into the cabinet.

Many times the stuff was seen apparently issuing from the medium's mouth. At the sitting on May 29th 1931, the medium came right out of the cabinet and stood under the light. The substance was seen coming out of her mouth in a strip about $1\frac{1}{4}$ inches wide and 12 inches long. It was slowly drawn back into the mouth to the accompaniment of swallowing movements of the lower lip and throat.¹ This incident is only evidence for regurgitation provided one is willing to assume that the manifestation in question was not genuine ectoplasm. One must also bear in mind that the piece seen to be swallowed was small compared with the yards of 'cheese-cloth' that had been witnessed at other times.

Better evidence for regurgitation was obtained at the last L.S.A. sitting on June 12th 1931. Mrs Duncan was made to swallow a pill containing methylene blue, which would stain any material that might be lying in her stomach. This was the only one of all the L.S.A. sittings at which no ectoplasm was produced. During the sitting the medium put out her tongue and this was claimed by Albert to be ectoplasm.

Dr Margaret Vivian reports (in a letter to Mr Abdy Collins) that on two occasions at Bournemouth Mrs Duncan produced white ectoplasm after swallowing methylene blue, but it is possible that the conditions were such as to allow her to conceal the stuff without swallowing it.

Unfortunately for the septic, regurgitation and skilful manipulation of cheese-cloth will not explain all the happenings at the L.S.A. séances. The conditions were variable and often informal, but at times the control was very stringent. The medium was completely stripped, searched, and put into a one-piece suit. The trouser legs ended at the bottom in bags which enclosed her feet. The hands were enclosed in stiff buckram mittens, which were sewn to the sleeves of the suit. The opening at the back, through which the medium entered the garment, was sewn up to the neck.

On two occasions a code stitch was used, that is, the stitches were arranged in a special pattern which would be difficult to imitate. The neck band was strong, close-fitting and inelastic.

These were the conditions obtaining at the séance on May 12th 1931, at which large masses of ectoplasm were seen coming, apparently, from the medium's mouth. Dr Dingwall was allowed to touch the stuff. Albert asked if it felt like rubber, but Dr Dingwall said it was warmer and harder than rubber. Another time during the same séance, the cabinet curtains were parted, and while both Mrs Duncan's hands, enclosed in the buckram mittens, were visible to the sitters, a light switch inside the cabinet was turned on and off by invisible means. At the end of the sitting the stitching on the back of the séance suit was examined and found intact.

At a sitting on May 8th 1931, Mrs Duncan was stripped and searched as usual. A vaginal examination was performed, and she was put into a

¹ It was this incident which led the L.S.A. to think that Mrs Duncan might be regurgitating. Although we have discussed the possibility of regurgitation on a much larger scale, the L.S.A. is not responsible for the suggestion that Mrs Duncan concealed or regurgitated large masses of ectoplasm on the occasions when yards of the material were seen.

PLATE II



A cheese-cloth "spirit", showing rents, selvedge edge, torn strip, etc. A flash-light photograph of Mrs. Duncan, by Harry Price, May 1931.

PLATE III



A "mask and coat-hanger" type of "spirit", produced by Mrs. Duncan in her Dundee home. Reproduced from Harry Price's *Leaves from a Psychist's Case-Book*.

one-piece suit, but without gloves. At this sitting, while the medium's hands were held by Miss Phillimore and Dr Fielding Ould, there was a sound of splashing within the cabinet. Some wax and a bowl of water had been placed there for the purpose of obtaining wax impressions. A wax 'glove' was left behind, but it did not bear any skin markings. At the same sitting, while both the medium's hands were said to be visible, Miss Phillimore was held by a third hand, which was wet.

Under the conditions described, if regurgitation be the correct explanation, the medium would have had to add to her cheese-cloth meal a rubber glove and probably a collapsible rod as well. (See Plate III.)

Remarkable feats of rope tying were witnessed at some of the sittings. The most noteworthy incident of this nature took place on Nov. 28th 1930. The medium was stripped and dressed in dark coloured shoes, stockings, knickers and coat. She was then lead into the séance room and placed inside a net bag, which was tied at the neck and the tape sealed to her chair. A length of rope was left lying in the cabinet, and during the course of the sitting the medium was found to be securely bound inside the sack without breaking the seals, the rope being wound tightly round each ankle, and a loop carried round her neck, while her wrists were tied together behind her back. It is not suggested that these effects were necessarily paranormal, but if not, they indicate considerable skill and dexterity on the medium's part.

Further demonstrations of agility were given on the several occasions on which the medium was released from her séance-suit and brought out naked. The stitches at the back of the suit looked intact, but on one occasion Lord Charles Hope discovered a needle and thread, which the medium might have surreptitiously introduced for the purpose of restitching the gap made by her bursting out of the suit.

On May 5th 1931, code-stitching was used to sew up the back of the medium's suit. The arms were fastened to her chair with surgical tape, but Albert insisted on this being loosened so many times that it ceased to be an effective control. At one point on each side of the collar of the séance-suit there was sewn the end of a broad band of tape. The other ends of the tapes were sealed to her chair. The ankles were also sealed to the chair with tapes.

Mrs Duncan emerged from all this, leaving the seals apparently intact. Later examination revealed that the code stitching at the back of the garment had been undone and sewn up differently. Still the gap would have been too small to let Mrs Duncan out unless the neck fastenings and seal had also been undone and replaced in some way. On this occasion no needle and thread were found in spite of the allegedly diligent search.

During the course of the same séance, the ectoplasm accidentally caught on something outside the cabinet. A series of piercing screams, most disconcerting to the investigators, came from the medium in the cabinet. Albert said she was hurt, and after a pause he ordered the sitters to help her out of the cabinet. Mrs Duncan was found, as already described, free of her séance-suit and completely naked.

On examination, Mrs Duncan was found to have sustained what appeared to be a burn. Such an appearance might have been produced by friction or other means. In fact, Mrs Duncan had been given a cigarette

before the burn was noticed, and the injury was just such a round mark as might be expected to result from the touch of a lighted cigarette end, but if that were the case she must have been willing to submit herself to considerable pain.

After the last L.S.A. sitting on June 12th, Mr Duncan made a statement in which he declared he had come to the conclusion that the 'ectoplasm' was produced by regurgitation.

THE HARRY PRICE INVESTIGATION

While the last series of L.S.A. sittings was drawing to a close, Mr Harry Price procured Mrs Duncan's services for five sittings at the National Laboratory of Psychical Research.¹

The National Laboratory investigators did not adopt any form of control of the medium's person; they relied entirely upon the rigorous search that was carried out before and after each sitting. Mrs Duncan would be stripped naked and the surface of her body thoroughly explored in the presence of several suitable investigators. Vaginal and rectal examinations were performed at two of the sittings. The medium would then be dressed in a black one-piece séance-suit, taken to the room, where the sitters awaited her, and led directly to her chair in the cabinet.

Special precautions were taken to prevent collusion with Mr Duncan. During the preliminaries of searching etc., man and wife were in separate rooms. In the séance room itself, Mr Duncan was never allowed near the cabinet. He was kept at the far back of the room, behind the sitters. The light was fairly good, and it seems absurd to suggest that he could have thrown a package to his wife over the heads of the sitters or between their legs.

Collusion between medium and one or more of the investigators is a possibility always raised by the resolute sceptic, but once a critic has been forced into this position, all discussion ends, because it is impossible to drive him further.

The National Laboratory séance-suit had trouser legs which enclosed the medium's feet, like the one at the L.S.A. The sleeves ended in mittens, which were in one piece with the rest of the garment. Unfortunately, this suit was ineffective as a means of control. Mrs Duncan was seen to free an arm with the greatest of ease. She could wriggle the arm out of its sleeve and then push the hand out at the neck.

The theory of regurgitation was once again the key-note of the investigation. The best evidence for it lies in the flashlight photographs taken by Harry Price, which prove conclusively that the ectoplasmic manifestations were only cheese-cloth. They show the medium variously adorned and draped with a big sheet of the material. The interlacing warp and woof and the selvedge marks are plainly visible. (See Plate II.) There are rents and tears and even the marks of folding. One particular tear, identified by its size, shape and position, appeared at two séances, proving that the same piece of cheese-cloth was used for both.

¹ See "Regurgitation and the Duncan Mediumship." (*Bulletin of the Nat. Lab. of Psy. Research*, London, 1931.)

The manifestations were not entirely restricted to crude cheese-cloth, but in all cases the mundane origins of the phenomena were revealed by the camera and stereoscope.

At the first séance the conditions were informal. Mrs Duncan was dressed in her own séance garments, and a pin was used to fasten them. During the sitting, a piece of ectoplasm was seen stretched out at right angles to the medium, but she moved a little and there was a click. The ectoplasm fell and both Mrs Goldney and Mr Barry Richards were able to see the pin with which it had been attached to the cabinet curtain.

A pin appeared in the photographs taken at the third séance, and after the fourth séance a small gilt safety-pin was found concealed in a tuck inside the séance suit. Safety-pins had been discovered previously by the L.S.A. investigators, so they must be a fairly constant feature of the ectoplasmic machinery.

At the third séance, a hand was materialised, but in the photographs it was revealed as a rubber glove. At the fourth séance, Mr Duncan said he saw a materialised face, which he described. The light was too poor for the others to see any face, but the camera showed that there had been a flat, cut-out picture of a girl's head, seen in profile and draped in cheese-cloth.

The investigators concluded that all these objects had been regurgitated. The stomach was the only place that had not been searched. The nasopharynx was also suggested, but that would be too small and not very safe. On several occasions at London, doctors examined Mrs Duncan's throat before the sitting. Harry Price thought a secondary stomach or oesophageal diverticulum might be the solution, but it is difficult to see how such a peculiarity would assist her. Regurgitation from a diverticulum would be even less likely than from a normal stomach. In point of fact Mrs Duncan has been given a barium meal and an X-ray taken of her oesophagus and stomach,¹ but no abnormality was seen.

At the end of the fourth séance permission was asked for an X-ray of her abdomen to be taken. It was thought that some radiologically opaque constituent of her 'props' might be detected. Mrs Duncan proved unwilling, becoming restless and finally running out into the street followed by her husband. When she was brought back, she then demanded an X-ray, but nothing was revealed. Mr Duncan was asked if he would submit to a search, since his wife had had the opportunity of passing something to him in the street. He excused himself on the grounds of dirty underwear, but later explained that at the time of the séance his wife was having a menstrual period and on the way to the laboratory she had passed him a couple of sanitary towels, and the presence of these objects might have been misinterpreted by the investigators. Mrs Goldney stated that the medium was not menstruating when she was searched before the sitting.

At the last sitting (the only one at which Mr Duncan was not one of the sitters) no cheese-cloth appeared. A few inches of 'ectoplasm' protruded from the medium's mouth and a small piece was amputated by one of the doctors present. It proved to be layers of lavatory paper stuck together. It is interesting to note that whenever a specimen of ectoplasm was given,

¹ *Psychic Science*, July 1942, xxi, p. 49.

either at the L.S.A. or the National Laboratory, it never came from the large mass of drapery that was the usual manifestation.

After a consultation with Mr Duncan, at which the regurgitation theory was explained to him, it was agreed to hold one more séance and to have Mrs Duncan fastened to her chair. Before the appointed day arrived, Mrs Duncan fled to Scotland. Mr Duncan was promised £100 if he would induce his wife to regurgitate in front of a cinematograph camera, but the offer was never taken up.

In February 1932, a certain Mary McGinlay, who had been Mrs Duncan's maidservant at the time of the London sittings, contacted Mr Harry Price and made a statutory declaration implicating her former mistress in fraudulent practices. In this document, the maid swears that Mrs Duncan sent her out to buy a length of butter muslin, which was returned to her to wash after some of the séances. She could even recognise the very same piece in Price's photographs! She also claims to have discovered in Mrs Duncan's possession rubber gloves, cut-out pictures from magazines and other implements of deception. As confirmation of every single surmise of the National Laboratory investigators, this document is very remarkable. There is one curious discrepancy. Mary McGinlay implies that Mrs Duncan deceived her husband with her tricks, whereas there is ample evidence in Mr Duncan's behaviour and statements at both the L.S.A. and the National Laboratory that he was aware of what was going on. Mr McIndoe states that two days after her return to Scotland this same servant girl assured him she had never at any time seen anything to suggest that Mrs Duncan was acting fraudulently.¹

So much for the evidence for regurgitation. Though circumstantial, it is strong, and is supported by the weak evidence for any other normal explanation. Mrs Duncan is not the only person to have had a reputation for regurgitating powers. A regurgitator of Praguc is reported to have swallowed and brought up again as many as twenty live frogs.² Swallowers of glass, nails and miscellaneous ironmongery are comparatively common, but they are unable to regurgitate. A demonstration of chewing and swallowing (without regurgitation) of an electric light bulb, razor blades, a gramophone record and some flowers was given by Mr Arthur Haylock at the S.P.R. on May 5th 1944. Regurgitation has also been suggested as an explanation of some of the phenomena of Eva C.

Spiritualist Experiences

After Harry Price's formidable armaments had brought about her retirement into the provinces, Mrs Duncan's career entered a phase which can only be described as a scientific blackout. Shielded by a horde of uncritical sympathisers, Mrs Duncan was able to carry on her activities unhindered by X-rays, cameras or surgical strapping, with the result that she became the most famous British materialising medium.

Mr J. B. McIndoe, President of the Spiritualist National Union, championed Mrs Duncan, proclaiming her a martyr to the cause. She became more and more prosperous, travelling about and holding sittings

¹ *Psychic Science*, xxi, p. 50.

² *Proc. S.P.R.* xxvii, p. 348.

in the homes of the faithful all over the country. Stories of her wonders were broadcast far and wide. The sheets of ectoplasm developed into fully built-up materialisations, and accounts of spirit recognitions at Duncan sésances became almost a regular feature in the popular spiritualist weekly *Psychic News*.

In November 1931, Dr Montague Rust, an ardent Duncan supporter, wrote to Mrs Goldney, who is an S.P.R. member and who had taken a prominent part in the Harry Price sittings. Dr Rust's letter is so typical of the claims and attitude of Mrs Duncan's followers that it is worth quoting extracts. He writes :

" There are very few people who have had the honour of sitting with Mrs Duncan as often as I have. . . . I have had unbounded opportunity of examining her and the material and beings whom she ' regurgitated '. In fact she ' regurgitated ' my brother-in-law, Charles Ross, and my driver, Andrew Barclay, and my dog, Hector. We had long conversations with them in their own characteristic voices and varying memories. Hector was life-like in all his actions and ran about the floor as he did in life. Forms came out and sat on some of the sitters' knees and spoke and ate apples and drank water. One spirit form removed my boots forcibly and put them on and walked about with them.

Mrs Duncan also dematerialised in my presence wholly and partially in decent red light. She was also levitated 3 feet off the ground, chair and all. . . . I have seen a lump of what you call cheese-cloth the size of a football thrown on the ground with such force that we thought the floor was broken. I have had a rope of this cheese-cloth thrown round my neck with such force and rapidity that I was hauled off the chair. I have seen a huge form ' swallowed ' back by the medium in the fraction of a second, causing obvious bleeding and injury. . . ."

" The theory in Mr Price's books that she regurgitated cheese-cloth etc. is absolutely preposterous and is the most fantastic theory ever brought forward. If she really can do this, the wonder of her powers is far in excess of any mediumship that I know of. She can make this cheese-cloth talk, move like lightning, take different shapes and have enormous force."

Dr Rust's response to a proposal for further scientific investigation is also typical. He writes :

" With hostile people the phenomena won't appear. I doubt very much whether Mrs Duncan would ever again go through what she had to endure in London. Your suggestion of the violent physical examination before and after the sittings is out of the question, and there is a simple way out of the difficulty which is much more effective. When I have time I shall make enquiries and see what can be done, if it is at all possible and if all the people concerned will allow her."

It would be possible to fill an enormous tome with illustrations of this type, but a very few more must suffice. The first is taken from a letter by Neil Seath in *The Two Worlds* in December 1931.

" It is time that those of us who have had some experience of the remarkable manifestations obtained through Mrs Duncan rallied in defence. . . ."

“The writer, with ten friends, has had the privilege of witnessing some of the materialisations. . . . The sitting took place in the home of the sitters in a small room measuring 12 feet by 12 feet, illuminated by a thirty watt electric red bulb. . . . Mrs Duncan was minutely examined by two ladies well qualified for the task, and was under close observation from the time of the examination until she was brought into the room and placed in the cabinet in full view of everybody. . . .

“Albert requested us to observe closely the amount of teleplasm he would show us, and asked us to use our judgement as to whether even Mr Harry Price could swallow and regurgitate such an amount of teleplasm as rapidly as it was made to appear and disappear before our eyes. In my own judgement, the stream of teleplasm would be quite ten feet long, and fell in several folds at the foot of one of the sitters. It flowed with some rapidity, and disappeared almost instantly, suggesting the swallowing powers of a crocodile. . . .

“Amongst other phenomena, Albert told us that he would endeavour to show himself standing side by side with his medium. We heard him request Mrs Duncan to stand up. The curtain was pulled apart, and there in full view of us all stood the tall form of Albert, with Mrs Duncan (shorter in stature) standing at his right side. It was a most convincing and impressive spectacle.”

Mr B. Abdy Collins, C.I.E., I.C.S., an S.P.R. member, has recorded¹ another instance in which Albert and Mrs Duncan were seen together. This was at Bath in December 1931, in the presence of Dr Margaret Vivian and others, and it is of special interest because an attempt was made to photograph the manifestation. Although the sitters were sure they could see two figures, Mrs Duncan and Albert, the photograph showed only one white, draped form. This is strongly suggestive of hallucination.

The next two illustrations of spiritualist testimony bear witness to how extensive is Mrs Duncan's repertoire when in the presence of a favourable audience. The first quotation is from some notes by Dr Reid, in the possession of Mr Abdy Collins.

“Of all the remarkable manifestations which occurred at these Duncan sittings—the appearance of spirit lights impressed me most. . . .

“At the very next sitting the first thing to happen was the dramatic appearance of Albert holding a large luminous disc—about 9 inches square. It had a dark centre from which a circle of bright rays projected for about two inches into a surround of glowing pearl-like opalescence, illuminating Albert's fingers as he slowly moved the object before one sitter after another. It came within a foot of my face and seemed to have a solid appearance—then it gradually melted away. At the same time small sparks of light like live flies wandered about the curtains. One of these commenced to enlarge and grow in brilliance and a beautifully shaped arm and hand projecting from between the curtains was seen to be holding it—the fingers, long and tapering, were bathed in its bluish glow. Then it, too, slowly faded away.”

¹ “Mrs Duncan : Enigma,” (*Psychic Science*, Jan., 1942, vol. xx, p. 120.)

The next quotation, even more dramatic, is taken from an article by Mr McIndoe, one time President of the Spiritualist National Union.

“ During the sittings Mrs Duncan wore a two-piece black suit provided by us, stockings, also black, and her own slippers. These clothes she put on in an adjoining room, in the presence of Dr Hutcheson and Mrs Drysdale, who made sure that she had no white material of any kind, not even a handkerchief, in her possession when they brought her into the séance room. She went immediately into the cabinet, and as soon as she was seated the curtains were closed. . . .

“ The medium was in trance almost immediately she was seated—as shown by her stertorous breathing. Immediately the prayer was over Albert said, ‘ Do not sing yet, McIndoe, I am going to show you how absurd this regurgitation theory is.’ And there was scorn in his tones as he spoke the last three words. ‘ Feel her garments, Doctor,’ he said to Dr Rust, who was seated next the cabinet to the medium’s right. Dr Rust put his hand behind the curtains.

“ ‘ What do you mean, Albert?’ he said. ‘ That is her black séance robe.’

“ ‘ I know it is,’ said Albert. ‘ But I want you to know that she has it on. Feel her garments, lady,’ to Mrs Drysdale, next to the cabinet at the other side.

“ ‘ Yes. I can feel her séance robe all right,’ she replied.

“ ‘ Now sing,’ said Albert.

“ Before we had sung more than two or three lines, the curtains were parted and some things thrown straight out. They fell on me, sitting opposite the curtain opening, not three feet from it.

“ ‘ Mrs Duncan’s clothes,’ I said ; and indeed they were.

“ Then the curtains were thrown wide open, not by any of the sitters. Mrs Duncan was standing, one foot on the chair, nude, without even her stockings, though still wearing her slippers.

“ Those who knew Mrs Duncan at all intimately at that time will appreciate that she was almost if not quite incapable of putting on her own slippers. Certainly, inside the cabinet, she could not have removed her rather tight-fitting séance garments, taken off her slippers and stockings, and replaced the slippers in an incredibly short time, without the sitters being aware of her movements. She stood there, in trance, white material of some sort streaming apparently from her eyes, her nose and her mouth. It seemed a white jelly-like substance right up to the orifices from which it seemed to be flowing. But even more weird and fascinating was the spectacle of a liquid spurting from the nipples of her breasts, apparently transparent as it left them, then becoming white as it fell, condensing into threads which somehow seemed to merge into some sort of fabric which draped the lower part of her body and hung like a kilt down to her knees. The two doctors peered closely at this particular phase of the phenomena, describing and commenting on it. After a minute or two, the curtains were closed, but were almost immediately again thrown open revealing Mrs Duncan standing erect, facing us, covered from head almost to feet, with a huge expanse of white material, like an immense piece of what might quite reasonably from its appearance

be described as cheese-cloth. That material had what appeared to be quite substantial hems along its edges. Albert made Mrs Duncan turn round so that we could see that the material covered her back also. It was clean whitish material, which seemed to have a faint luminosity of its own. There was no offensive odour about it. We watched that for a minute or two, then the curtains were closed and the séance was over."¹

Prosecutions

In spite of the strength and vigour of her following, Mrs Duncan has been twice prosecuted and convicted for fraud. The incident which led to her first conviction took place in 1933 at a séance in Scotland. The spirit of a little girl named Peggy, who is one of Mrs Duncan's regular controls, materialised and came right out of the cabinet. One of the sitters, Miss Maule, made a grab at the figure, saying, "Come here and let me see what you are made of." Miss Maule's hand caught and ripped some material. The lights were switched on and the medium was discovered trying to stuff a torn white undervest up her dress. It was with difficulty that the vest was wrested from the furious Mrs Duncan and produced in evidence at the Edinburgh Sheriff's Court. She was charged with "... having pretended . . . that she was a medium through whom the spirits of deceased persons were openly and regularly materialised. . . ." This was on May 3rd 1933. She was convicted and fined £10. Of course, to her supporters, she became a martyr.

The events leading to her second conviction were somewhat similar. She was giving sittings at Portsmouth at the house of some spiritualists by the name of Homer. The séance room was on top of a drug store run by Mr Homer, and was registered as "The Master Temple Psychic Centre".

On January 14th 1944, two young naval officers, Lieutenant Worth and Surgeon-Lieutenant Fowler, attended one of these Portsmouth séances. There were about twenty sitters, and Worth and Fowler were placed together in the second row. Mrs Duncan's séance clothes were passed around for inspection, and two ladies went outside to watch her dress.

In the course of the séance, Albert said, "I have here a lady who passed over with some trouble in the lower part of her body." Worth was prompted to ask, "Is it for me?" and Albert answered, "That's the voice". Worth repeated several times the formula "Will you come out, please", and then he saw a white form appear between the curtains. He said, "Are you my aunt?" and the reply came in a husky whisper, "Yes". The figure then retired behind the curtains.¹

Lieutenant Worth was disgusted. As far as he knew he had no deceased aunt. Later in the séance another figure appeared, claiming to be his sister; but his only sister was at that moment alive and well. When he disputed the identity of this figure the control said, "You don't understand, she was premature". Worth asserted that his mother had assured him that she had never had a premature child.

¹ *Psychic Science*, xxi, pp. 46-47.

² *The Trial of Mrs Duncan*, p. 42.

Worth got in touch with the Portsmouth police after this sitting, and on their advice he booked another two seats for a séance on January 19th. This time Worth went in the company of War Reserve Constable Cross, *incognito*, and they sat together in the second row. They allowed two manifestations to come and go unmolested then as the third form appeared between the curtains, Cross sprang forward, overturning Mr Homer who was sitting in front of him, and made a determined grab. Simultaneously Worth switched on a torch. According to their evidence, Mrs Duncan was seen standing in front of the curtains engaged in throwing on to the floor a sheet of flimsy white material, which was draped about her.

Cross grabbed Mrs Duncan with one hand, and the material with the other, but the stuff was whisked away from his grasp in the direction of the sitters. Worth's torch was jerked down by a sitter, and by the time the electric light was switched on the white material had disappeared.

Constable Cross blew his whistle and a band of waiting policemen, led by Inspector Ford, entered the room. The place was searched for the cloth. The accused sitters clamoured for a search of their persons, but the police, in spite of the presence of a woman member of the force, refused to accede to the request, and the cloth, or whatever it was, was never found.

If a sheet of slimy, regurgitated cheese-cloth had been found, there could hardly be a doubt in anybody's mind about the way the fraud was accomplished. As it was, the exposure was incomplete, and believers can still maintain that the 'sheet' was a genuine ectoplasmic manifestation, even though it was used to disguise the medium. On this topic Schrenck-Nötzing has written as follows :

"The photograph (of Eva C.) . . . is interesting as throwing a light on the genesis of the so-called transfiguration, *i.e.*, in the spiritistic sense, the medium takes upon herself the part of the 'spirit,' endeavouring to dramatise the character of the person in question, by clothing herself in the materialised fabrics. This transition stage is found in nearly all materialising mediums. The literature of the subject records a large number of attempts at the exposure of mediums thus impersonating 'spirits', *e.g.*, that of the medium Bastian by the Crown Prince Rudolph, that of Crooke's medium Miss Cook ; that of Mrs d'Esperance, etc. . . . In all these cases the medium was seized, but the fabrics used for masking immediately disappeared, and were not afterwards found."¹

On the basis of the evidence briefly described above, Mrs Duncan, her travelling companion Mrs Brown, and Mr and Mrs Homer were all charged with contravening Section 4 of the Witchcraft Act by conspiring together falsely to pretend that Mrs Duncan could get into communication with spirits of the dead. The case was tried at the Old Bailey, before Sir Gerald Dodson, Recorder of London, and a jury of six men and one woman.

The trial began on March 23rd 1944, and lasted over seven full days. It created quite a stir at the time, rivalling the war news in the headlines of the daily papers. Mrs Duncan was given a first class defence, financed by a special spiritualist fund, but it did not succeed in procuring her acquittal. All four defendants were convicted. It was established that Mrs Duncan had received £112 in six days for séances at Portsmouth, and she was sentenced to nine months' imprisonment. Mrs Brown was given four

¹ *Phenomena of Materialisation*, (London, 1923), p. 97.

months, and Mr and Mrs Homer were both bound over for two years. The case was brought before the Lord Chief Justice of England, at the Court of Criminal Appeal, but the verdict was against the appellants.

In the course of Mrs Duncan's long defence, a host of witnesses was called to testify to the genuineness of her materialisations. While most of the testimony was valueless from the psychological researchers' point of view, the narrators being obviously credulous and gullible, some was most interesting.

Jane Rust, a retired municipal midwife, was questioned about the Portsmouth séance of January 17th 1944 :

“ Q. Tell my Lord and members of the jury what happened. . . .

A. . . . the spirit guide announced that there was a gentleman there, and he thought it was for me—an elderly gentleman—and he gave the description. I said, ‘ Is it you, Daddy ? ’ meaning my husband, and he said, ‘ Yes ’. I invited him out and said, ‘ Come out dear ’, and he came out.

Q. How far out of the cabinet did he come ? A. He came on the outside of the curtain. I immediately got up from my seat and went right up to him. I said, ‘ Kiss me, dear ’.

Q. Did you recognize anybody ? A. Of course I recognized him.

Q. Do not say, ‘ Of course ’, I want you to tell us. A. I did, sir.

Q. Who was it ? A. My husband.

Q. Had you any doubt about it being your husband ? A. No doubt whatsoever.

Q. How close up to him were you ? A. As close as I am to this. (Indicating the ledge of the witness-box.)

Q. Did he speak to you ? A. He spoke to me.

Q. Did you recognise his voice ? A. I did.

Q. Were you certain of his voice ? A. I was perfectly certain.

Q. Did he say anything to you in particular that struck you as of importance ?

A. Just spoke about the family. He said that he was always with me, and that he would be on the other side waiting for me ; he would never leave me until I joined him.

Q. The only thing that matters for the purposes of this case is : Are you absolutely certain that it was your husband ? A. I have never been more certain of anything in my life before.

The Recorder : For how long has he been dead ? A. Five years, my Lord.

Q. Had he altered in appearance at all ? A. No, sir, he had not altered—just a wee bit thinner, perhaps, than he was in health, but my husband was very ill for three years before he went.

Mr. Loseby : When your husband showed himself to you, was he as he was—I do not know the answer to this—before, or shortly before, he died ? A. No, he was the same as he was probably a year or two before he died.

Q. Were you allowed to touch him ? A. I asked him to kiss me.

Q. Did he kiss you ? A. He said, ‘ Put your hand in mine, dear ’, so I gave him my right hand. He took hold of it with his right and clasped my hand very tightly.

The Recorder : It was flesh and blood, was it ? *A.* It was very cold, my Lord, but it was his hand.

Q. You could hold it, could you ? *A.* I held it firmly. I felt the knuckles. He suffered from rheumatism, my Lord, and I felt the nobbly knuckles.

Mr Loseby : We must face up to things, Nurse Rust. Are you quite sure that it was not Mrs Duncan ? *A.* Oh, perfectly certain, perfectly sure. My husband is not quite so big ; he is not such a stout man.

Q. You said you asked your husband to kiss you. *A.* I did, sir.

Q. Did he kiss you ? *A.* He did, sir, right on the mouth."¹

This witness went on to state that at the same séance her mother manifested and was recognised on close inspection by two moles, one in the hollow of her chin and one above her left eyebrow, which were reproduced true to life. Then an Aunt Mary came and spoke in Spanish, saying, "I am very pleased to see you. I wanted to come before, but they did not understand."

This evidence is extraordinary. Granting its veracity, either the witness must have been hallucinated and deluded to an astonishing degree or else the phenomena were genuine. It is all the more puzzling, since Mrs Rust appeared to be a level-headed and honest narrator.

Mr. Abdy Collins has pointed out that although Mrs Rust stated in her evidence that she was present at the séance on January 19th, when Constable Cross seized Mrs Duncan, she is not shown as present in the official plan of the disposition of sitters at that séance.

Another interesting witness was Dr John Winning, Assistant Medical Officer of Health of Glasgow, who said he had witnessed upwards of four hundred materialisations at Duncan séances, many of them in his own rooms at Glasgow. He had heard voices speak in a number of different dialects and languages. He had clearly recognized a dozen materialised relatives.

At the request of this Society, Dr Winning was later interviewed by Lady Ruth Balfour, who has a medical degree and is a member of the S.P.R. Dr Winning appeared to her to be an ardent believer in Duncan phenomena, and who considered it an insult to question her genuineness. He had taken photographs of some of the manifestations, and these he showed to Lady Ruth, stressing his view that no photograph could be judged genuine or otherwise until one took into consideration the condition of the sitting at which it was taken. One of the photographs depicted a tall figure, shrouded from head to foot in white drapery. The features were indistinct, the lower half being covered by some black stuff representing a beard.² The rest of the photographs were similar to those taken by Harry Price years previously. Dr Winning stated he was hoping to obtain some time a photograph showing Mrs Duncan and a spirit form on the same photograph but entirely separate from each other.

¹ *Op. cit.*, pp. 171-172.

² I have seen this photograph and have no hesitation in saying that it shows every sign of fraud. It might well be Mrs Duncan wrapped in a sheet. The appearance of height is given by drawing the sheet high up round the neck. One shoulder only is in view, and it might be artificially raised by Mrs Duncan's hand beneath the sheet.—D.J.W.

It would be possible to go on quoting this sort of testimony to the crack of doom, but we might be no nearer a conclusion at the end. It is impossible to come to a decision on Mrs Duncan without first deciding what weight to attach to human testimony to physical phenomena. This is the subject of the next section. It will suffice for the moment to cite the words of Professor H. H. Furness of the Seybert Commission on Spiritualism. They are very pertinent to the present issue.

“ Again and again have I asked those who have returned, from an interview with a spirit at the cabinet, to their seats beside me, whether or not they had recognised their friends beyond a peradventure, and have always received an affirmative reply, sometimes strongly affirmative. I was once taken to the cabinet by a woman and introduced to the Shade of her dead husband. When we resumed our seats, I could not help asking her : ‘ Are you *sure* you recognised him ? ’ Whereupon she instantly retorted, with much indignation, ‘ Do you mean to imply that I don’t *know* my husband ? ’ Again, at another séance, a woman, a visitor, led from the cabinet to me a materialised spirit, whom she introduced to me as ‘ her daughter, her dear, darling daughter,’ while nothing could be clearer to me than the features of the medium in every line and lineament. Again and again, men have led round the circles the materialised spirits of their wives, and introduced them to each visitor in turn ; fathers have taken round their daughters, and I have seen widows sob in the arms of their dead husbands. Testimony, such as this staggers me. Have I been smitten with colour-blindness ? Before me, as far as I can detect, stands the very medium herself, in shape, size, form, and feature true to a line, and yet, one after another, honest men and women at my side, within ten minutes of each other assert that she is the absolute counterpart of their nearest and dearest friends, nay, that she *is* that friend. It is as incomprehensible to me as the assertion that the heavens are green, and the leaves of the trees deep blue. . . . ”

“ In any statement of this problem we should bear in mind all the attending circumstances : the darkened room ; the music ; the singing ; the pervading hush of expectation ; the intensely concentrated attention ; the strained gaze at the dark cabinet and at its white-robed apparitions ; and finally, the presence of a number of sympathising believers.”¹

At the Duncan trial, emphasis was laid on the way nearly all the spirits ‘ dematerialised ’ by sinking to the floor. In this connection also Professor Furness’ remarks are still topical.

“ Not infrequently a materialised spirit is seen to subside into the floor between the folds of the curtain at the opening of the cabinet. This is termed ‘ de-materialisation ’, and not a little mystery is ascribed to it. The mystery vanishes when we reflect how easy it is for a lithe and active young woman so to bow down quickly, even to the very ground, as to convey the impression, when her white garments are alone visible against a black background, that she has sunk into the floor. I have at times distinctly felt the faint jar caused by the medium’s falling backward within the dark curtains a little too hastily. At times, when the spirit is wholly within the cabinet, and visible only through the parted folds of the curtain,

¹ *Preliminary Report of the Commission appointed by the University of Pennsylvania, etc., (Philadelphia, 1887), p. 150.*

the semblance of a gradual sinking is obtained by simply uniting slowly the two folds of the black curtains, beginning at the head and gradually closing them down to the feet ; the room is generally so dark that the dark curtain is indistinguishable at a little distance, and the effect of slowly falling is admirably conveyed."¹

Scepticism is certainly justified. It is hard to conceive the cheese-cloth phenomena and the re-stitching of the séance garment as due to supernatural agency. It is possible that the Duncan phenomena are only partly fraudulent, but that hypothesis is, *prima facie*, less likely than that they are all fraudulent, and there is the difficulty of how the medium knows when to prepare for fraud and when to expect the real thing.

On the other hand, if Mrs Duncan is never genuine, one has to go to fantastic lengths to account for all that has been observed by investigators. Her powers of swallowing and regurgitation must be nothing short of miraculous, and her powers of manipulation in the dark must be almost as extraordinary, including sewing in the dark and breaking out of seals and tapes without leaving any trace of damage.

Another possibility is that the miracle lies in the sitters and investigators, who, once across the "enchanted boundary", cease to observe and record correctly. Only laboratory investigation with automatic recording instruments can hope to settle the question. Perhaps even now Mrs Duncan might be induced to sit for properly equipped investigators, this time for the production of full blown spirit forms and not just cheese-cloth drapery.

As soon as she was released from prison, Mrs Duncan recommenced her mediumistic activities. She refused to allow the Spiritualist National Union to take charge of her sittings and they withdrew the diploma they had granted her. It is reported that since then she has resorted to advertising her wares on sandwich-boards on Blackpool Promenade. Her recent séances are much inferior to what she used to do in her prime. Mrs Duncan's ultimate fate is a matter for speculation.

An Enigmatic Personality.

Laying aside for the moment the question of whether Helen Duncan, or indeed any other physical medium, has ever produced genuine phenomena, we are left with the indisputable conclusion that she resorts on occasions to conscious, carefully premeditated fraud. Some of the frauds were very skilfully executed : the manipulation of the cheese-cloth phantoms and rubber gloves, the tying up with ropes and the escape from sealed séance garments were all very cleverly accomplished. Mrs Duncan must be a first class artist to be able to deceive so many people for so long by these methods.

It is difficult to reconcile this obvious skill in the art of deception with some of the very crude methods of fraud sometimes used. One finds it impossible to understand why she should have foisted specimens of fake ectoplasm upon investigators who were sure to expose it, while at the same time she was producing absolutely baffling phenomena, which, if fraudulent,

¹ *Ibid.* pp. 152-153.

must have required infinitely more subtle methods of deception. The specimens of loaded urine, also, were utterly incongruous.

Mrs Duncan has a convincingly innocent air. People who have associated with her a long time, and have come to believe they know her intimately, declare her to have the appearance of a simple, truthful, honest woman. In short, Mrs Duncan is extremely clever and cunning. (The same cannot be said of her husband, who cheerfully asserts that his wife is fraudulent or genuine as the occasion suits him.) But there are features in Mrs Duncan's personality that strike one as out of place in an accomplished charlatan.

In appearance, Mrs Duncan is far from prepossessing, being very fat and coarse-looking with a deep red face. In speech, she has a pronounced Scottish accent, but this is not shared by Albert. One of her most ardent supporters describes her thus :

"She was in a brown tight-fitting dress . . . a large, obese, ungainly woman, who moved slowly as though she suffered from heart-trouble or glandular affection and had not to hurry. She had by no means a magnetic personality . . . rather a repellent one that aroused one's critical faculties."¹

Very far removed indeed is Mrs Duncan from her compatriot D. D. Home, the versatile and mysterious artist, who moved so urbanely midst the glitter and intrigue of the now extinct courts of Russia, Germany and France. Different too from Margery Crandon, the charming and vivacious American who mystified the scientists of a later day.

Mrs Duncan has no glamour. Put on the spot, she is apt to seek refuge in the crudest forms of hysteria as on the occasion when she was confronted by Harry Price's formidable X-ray apparatus. She fled into the street, clad in her one-piece séance suit, and clung to some railings, screaming obscenities at the investigators and narrowly escaping arrest.

The scene must have been ludicrous indeed. A London street. In the centre, a group of eminently respectable investigators and specialists, their evening dress contrasting strangely with Mrs Duncan's informality of language and attire. To complete the picture, a phlegmatic London constable, expostulating mildly, and greatly increasing the gentlemen's anxiety for their reputations.

When the L.S.A. came to the conclusion that she was a fraud, Mrs Duncan indulged in what her doctor described as "an hysterical histrionic performance", namely swallowing half a bottle of Eusol. She was visited by representatives of the L.S.A., who were received at her bedside with cries, screams and threats. Although they had treated her from first to last with the utmost consideration and generosity, Mrs Duncan lost no time in spreading stories of how they had maltreated her.

Mrs Duncan's temper in difficult situations was never of the best. When she was exposed at Edinburgh, she used words that were repeated in evidence against her twenty-one years later.

"A. C. West (Chief Constable, Portsmouth) : I am coming to this point where she uses blasphemy. When she was challenged she said to Miss Maule : 'I will brain you, you bloody bugger.'

¹ *Psychic Science*, April, 1944, xxiii, p. 17.

" *The Recorder* : That was in 1933 ? Have there been any complaints since ?

" *West* : Not as far as I am aware. I cannot find any redeeming feature in her character."¹

It is extremely difficult to reconcile all this with the high level of intelligence and resourcefulness that she must have required for some of her frauds. It has been suggested that Mrs Duncan is possessed of a secondary personality, which is responsible for all her mediumistic operations. The difficulty with this explanation is that Mrs Duncan would have to prepare her frauds, go out and buy cheese-cloth, etc., before the sitting, while she is presumably her normal self and not under the control of any secondary personality. A more likely explanation would seem to be that her personality is subject to some degree of dissociation at all times, but that at her sésances it is so extreme that her whole character may change from that of an ordinary, dull, rather clumsy woman, to a very deft and resourceful cheat.

The truth is that Mrs Duncan is an unsolved riddle, and likely to remain so until we know more about physical mediums.

II THE TRIAL OF MRS DUNCAN AS A STUDY IN HUMAN TESTIMONY.

The Duncan case is a mass of irreconcilable contradictions. An apparently sane and reliable witness comes along with a tale of miracles that makes the mind boggle, and the next moment another witness is giving evidence of crude and common fraud. No impartial judge would pretend to know who or what to believe.

For this reason, Mrs Duncan, like all other physical mediums of any note, is an inscrutable enigma. Margery—after various impudent protestations of injured innocence—passed on to join her spirit friends, taking many of her secrets with her. Home also succeeded in carrying his cherished mysteries safely to the grave, leaving behind several volumes of supercilious memoirs, which, like the sphinx, remain to mock us for all time.

Mrs Duncan is unlikely to go down to posterity in the same way, but she too can afford to laugh. The fact that she has been able to pursue her lucrative vocation almost undisturbed for so many years, in supreme indifference to the thoughts or opinions of psychical researchers, is just as much a mockery of our futile attempts at investigation as the smug reminiscences of D. D. Home.

The day of reckoning will come. When sufficient money and enterprise are devoted to the subject, all the methods of modern instrumental controls, including infra-red cinéphotography, will be applied to the investigation of physical phenomena. The phenomena will be lifted out of the atmosphere of perpetual darkness and emotional stress, and examined in the calm dispassionate light of day. Then there will be no more question of genuineness. If materialisation be true, the process will be seen and followed. If the whole thing be deception, materialisation will never be heard of again.

¹ *The Trial of Mrs Duncan*, p. 337.

When this goal is reached, either of two things may happen. If fraud be exposed, present day critics will be lauded as right-minded resisters of gross ignorance and superstition. If materialisation be vindicated, the doubting Thomases will acquire a reputation akin to that of the Spanish Inquisitors. Those who have sat on the fence will be blamed in either event.

Until that happy time arrives, we have to depend upon the narratives of witnesses, so that the degree of accuracy and reliability to be expected from human testimony becomes a problem of immediate importance. It is not an easy problem, since concrete assessable facts are hard to come by and *a priori* opinions differ widely.

In this, as in all other psychological topics, we are apt to run into members of the school of inveterate misanthropists. According to these experts in the dregs of human nature, altruism is a myth, and behind the scenes we are all slaves to the compelling impulses of crude, selfish and amoral animal instincts. Extending this conception to human testimony, they would naturally say that truth and reason in witnesses' statements are only an outward façade, a superficial veneer; that in fact we see, hear and testify only to that which satisfies our instinctive predilections. Truthfulness is reduced to the minimum necessary to maintain an appearance of consistency and plausibility. Moreover, in twisting facts to suit their emotional preconceptions, witnesses may be completely unaware of any deviation from the truth.

In ordinary matters these ideas might be safely rejected as far-fetched fancies, but in the world of psychical research they are only too readily applicable. A witness at a law court, giving an account of some familiar domestic happening, knows he will not be believed if he says something highly improbable; but in describing a "psychic" phenomenon the same witness might almost swear that the moon fell down and still be believed by some people. The temptation to the subconscious, or whatever part of the personality is responsible for misstatements and fabrications, must sometimes be irresistible.

In the observation of everyday affairs that have no special emotional significance, the witness is on familiar ground, with all his wits about him and his senses alert. The scope for illusion, delusion and hallucination is relatively slight.

Very differently situated is the witness at a séance for physical phenomena. Vision is obscured by darkness and the shadow of curtains, Hearing is dulled by the monotonous discord of the sitters' vocal efforts. The sense of touch is eliminated, as the sitter is not allowed to move about or feel the manifestations. At the same time the atmosphere is tense and suggestive, pregnant with the expectation of imminent miracles. Excitement reaches its peak with the appearance of a spirit form, said to be the living, tangible re-materialisation of some long decayed, worm-eaten corpse.

Recognition of features under such conditions is a risky business. While waiting out of doors for the arrival of a friend, most people will have had the experience of recognising in some approaching stranger the familiar form of the expected individual, only to be disappointed on closer inspection. More serious mistakes have been made by witnesses attempting to identify police suspects. If errors of recognition are liable to occur under

these circumstances, they must be infinitely more common under the conditions of the dark séance. The relative insensibility of the fovea in semi-darkness makes recognition peculiarly uncertain.

Having followed these general arguments, the reader may be in a better position to consider some of the direct positive evidence of extensive delusion, gross inaccuracy of observation and amazing lapses of memory on the part of the sitters.

An early experimental investigation was undertaken by the S.P.R. in 1886, with the cooperation of Mr S. J. Davey, a slate-writing conjurer. Davey gave séances for "spirit writing" in every way similar to those of Eglinton and other mediums of the day. Some of the sitters were informed that the performances were conjuring tricks, others were under the impression that they were genuine spiritistic phenomena.

The sitters were asked to write careful reports shortly after each session, while the incidents were still fresh in their memory. Their accounts were found to contradict each other on many vital points, and some of the writers had no doubt but that the phenomena were genuine. Davey and Richard Hodgson, who knew the secrets of the tricks employed, were able to expose the mistakes and inaccuracies that had led the sitters astray. Gross errors in the appreciation of time intervals were evident, and deceptive expressions such as "immediately" and "hardly a moment" led to some of the worst *faux pas*. Failure to remember unobtrusive "assistance" by the conjurer in the arrangement of the slates was a very common fault; but there is no necessity to quote Dr Hodgson's detailed analysis of all the errors in the accounts of these mock séances, because anyone interested can read the full report in our *Proceedings*.¹

A somewhat similar investigation was carried out by Besterman in 1931.² A dummy séance was held, but without a conjurer and with all the sitters well aware that the proceedings were only for the purpose of testing their powers of observation. A lady was posted in front of a curtained cabinet to represent the medium. There was a table bearing miscellaneous séance-room paraphernalia, including a trumpet and a hand-bell. Forty-two S.P.R. members took part as sitters.

Besterman went through a prearranged routine, brightening and dimming the lights, switching on a flashlight, answering a knock at the door, turning a gramophone on and off and so on. When he had finished, the sitters were asked to answer a questionnaire relating to what they had just seen.

Thirteen sitters were discovered to be the subjects of illusions or hallucinations. Three of them reported non-existent movements of the table. One referred to a candle that was not present. Two sitters described the hand-bell as a glass of water. Faults of omission were very common. Only four people were able to describe correctly the incident in which Besterman opened the door in answer to a knock and then came back into the room putting a white card in his pocket.

As Denys Parsons so aptly remarks in his excellent little article *Truth and Testimony*,³ "It must be emphasised that these marked defects of observation and memory, and the illusions, took place on occasions when

¹ *Proc. S.P.R.*, 1886-87, iv, pp. 381-495.

² *Proc. S.P.R.*, 1931-32, xl, pp. 363-387.

³ *Horizon*, June, 1944.

there was no suggestive atmosphere, no emotional stress, and when every sitter was on the *qui vive* in expectation of the questionnaire. How much reliance then are we to place on the statements of emotionally tense persons sitting in dim light, in an atmosphere of religious fervour, and actuated by the powerful desire to get in touch with their departed relatives? "

At actual séances delusion and deception reach an incredible peak. Anyone who doubts it should read the book, *Revelations of a Spirit Medium*.¹ An ex-medium describes how he purchased a wire-gauze mask, behind which he put a luminous handkerchief, so that a luminous face was presented. "That wire mask has been recognised by dozens as fathers, mothers, brothers, cousins, sweethearts, wives, husbands . . ."

There is another book, the authenticity of which is not quite so certain, entitled "Confessions of a Medium."² The author recounts how he was first deceived and then taken into partnership by a famous materialising medium. The reader is made to realise the ease with which the public can be gulled, to understand the methods employed and to appreciate the thrill that is experienced in applying them. Not least important among the psychological tricks is the adoption of a false air of stupidity or simplicity.

Coming now to the Duncan trial, it is only to be expected that witnesses should disagree and contradict each other. None the less, it is worth tracing some of the details of the divergencies, because this is a method of making a rough estimate of the reliability of such evidence.

It will be remembered that interest centred on two séances, on January 14th and January 19th 1944 respectively, which were attended by Lieutenant Worth.

First, as to how much light there was and how distinctly the figures could be seen. According to Worth, white forms could be discerned between the cabinet curtains, but the features were invisible. There was only a dark patch apparently cut away in the material which corresponded to a face (p. 41).³

Mrs Jennings said the room was very dark and nothing could be seen plainly. At all the various manifestations on January 14th, she saw no features whatever (p. 97).

Worth's aunt was supposed to have materialised at this séance, and several witnesses described her as a little old lady; but Worth said, "I defy anyone to say that she was a little old lady, because it was so dark you could hardly see anything at all" (p. 61).

Worth was flatly contradicted by Wing Commander Mackie and Mrs Cole, both of whom were present on January 14th. Mrs Cole said the light was sufficient to see quite plainly, and everyone in the room could see everyone else (p. 157). Mackie claimed he could recognise the faces of the materialisations at a distance of three or four feet. On the 14th of January he recognised his brother, even to the tan on the face. When giving this evidence, Mackie remarked, "I know what ridicule there is for all these things and I know how my brother officers are going to respond to this, but I want to have my say" (p. 144).

¹ Edited by H. Price and E. J. Dingwall, (London, 1922).

² Griffith, London, 1882. The author is Chapman. The medium 'Thompson' is Firman.

³ The page references are to the book *The Trial of Mrs Duncan*.

Mr Homer explained that the séance room was illuminated by a 40 watt red lamp covered with a red silk handkerchief (p. 124). He claimed that at three feet distance he could see clearly. Albert's beard would be visible from the second row of seats, some five feet from the cabinet (p. 134). Constable Cross, present on January 19th, said the materialised forms were just a white blur (p. 100).

Mr Gill, questioned about the séance of January 19th, said he could see the face of the member of the audience next but one to him on the same row of seats, but further than that was not clear (p. 150).

Mrs Alabaster, present on January 19th, said she could recognise faces at the opposite side of the room (p. 163).

Nurse Rust, also present on the 19th, explained that one ought to get two feet or nearer to the figures to recognise them and see every detail clearly (p. 178).

In view of the great differences in individual adaption to semi-darkness, the different statements as to how much could be seen is not very good evidence for conflicting testimony. However, it is very significant that in the present case the degree of brightness alleged is almost an index of belief, varying from the complete scepticism of Lieutenant Worth, who said that hardly anything could be seen, to the faith of Mrs Cole, to whom everything in the room was plainly visible.

One of the highlights of the prosecution was the materialisation of some bogus relatives for Lieutenant Worth on January 14th. The episode began by Albert announcing that there was a lady present who had passed over with some trouble in the bowels. Mrs Homer prompted Worth to ask, "Is it for me?" Albert replied, "That's the voice", and the figure forthwith made its appearance between the curtains.

According to Worth, it was a bulky form shrouded in white right down to the ground (p. 42). Urged to speak up, he asked, "Are you my aunt?" The figure said "Yes", although Lieutenant Worth's aunts were all living. The supposed aunt immediately retired behind the curtains. That was all that was said and nothing more could be seen.

Homer's testimony was completely different. He described Worth's aunt as a slim old lady, about 5 ft. 1 in. in height, who came some three or four feet from the cabinet. Her features could be seen clearly. She had a very old face with a pointed chin and her hair was greying (p. 127). Worth, according to Homer, asked, "Are you an aunt of mine?" The old lady replied, "Trying to act strange, are you not?" She then disappeared down through the floor and not behind the curtain (p. 128). When she had gone Albert said, "I have a sailor boy here". "I know no sailor" Worth replied. There was no materialisation and Albert reminded Worth that there was no rank and file in the spirit world. This remark was taken as a rebuke to Worth for being too proud to acknowledge a common sailor.

Worth denied the incident about the sailor (p. 60), but all the defence witnesses who were questioned on the point remembered it and confirmed Homer's account. They included Wing Commander Mackie (p. 145), Mrs Cole (p. 156), Mrs Taylor (p. 181), Mrs Tremlett (p. 188), and Mrs Jopling (p. 195).

Mrs Cole's evidence as to the aunt agreed with Homer's and contradicted

Worth's. She claimed that the figure came right out of the cabinet, looked Worth in the face and said, "Trying to be strange" (p. 156).

Mrs Irene Taylor described the figure as an oldish lady, rather thin and bent, with long features, who came out of the cabinet and peered right into Worth's face (p. 181).

Mrs Tremlett asserted that a woman came out of the cabinet and Worth asked if she were his aunt. She replied, "You are acting strangely". Then she just disappeared from where she was standing, right away from the cabinet (p. 188).

Mrs Jopling also remembered the aunt who had said, "You are acting strangely, are you not?" The figure then sank to the floor. She had not come very far from the curtains (p. 195).

On the question of Worth's aunt, the believers were in agreement with each other and in unanimous opposition to Worth. This might be simply a case of lying by one or both sides, but that need not necessarily be the explanation. It seems highly probable that what is seen and remembered of these séances depends on what one believes to start with, in which case witnesses could be perfectly honest and still contradict each other. All the same, if nothing of the kind had occurred, it is strange that several witnesses should all see the form of an old lady come out and peer into Worth's face. It is also odd that witnesses should agree in ascribing the same, or almost the same remark to the alleged spirit.

Worth maintained that after the aunt had gone Albert said, "Here is a gentleman who passed away with some trouble to his chest". A white shrouded figure with no describable lines about it then appeared before the curtains. Not knowing what to say he asked, "Are you my uncle?" The voice replied, "Yes." The figure gave a nondescript salute and disappeared (p. 42).

None of the defence witnesses remembered Worth's alleged uncle. Both Homer and Mrs Tremlett denied all knowledge of the incident, although they were able to give a full account of Worth's other communicators (pp. 127, 192). Neither Mrs Taylor nor Mrs Jopling mentioned Worth's uncle in their accounts of his communicators.

The next manifestation began with Albert saying, "I have here for the same gentleman his sister"; Worth said, "I have no sister", and the voice replied, "Perhaps you don't understand, but she was premature." Worth said he was quite sure there were no premature children in his family, but the voice answered, "You can ask the question". No form materialised.

For a wonder, all the other witnesses are in agreement with Worth as to the general substance of this verbal exchange, which rather suggests that hearing is less readily deceived than sight.

Although a great deal of attention was paid to Worth's experiences on January 14th, the real crux of the case against Mrs Duncan lay in the alleged exposure of January 19th. At the séance on this date, War Reserve Constable Cross was sitting next to Lieutenant Worth in the second row of seats. The séance was not allowed to continue for long. When the third form appeared, Cross jumped out of his seat and made a grab at it.

According to Cross' own description of what took place, he overturned the chair in front of him, on which Mr Homer was sitting, and sprang

forwards. Simultaneously Worth switched on a torch, exposing Mrs Duncan standing between the curtains in the act of hurriedly trying to push a piece of white material, which was draped in front of her, down to the floor. When he reached Mrs Duncan, Cross seized her by the arms. She stepped a little to one side, and Cross, still holding her with his right hand, bent down and grasped the white material with his left hand. It felt flimsy, like butter-muslin. He grasped it for a moment, and then it was pulled out of his grasp in the direction of the left of the front row of the audience (pp. 100-101).

Cross stood up again, pulled the curtains apart and exposed the empty cabinet. Mrs Duncan was then seated in a chair outside the cabinet (p. 105).

Worth corroborated Cross' testimony. He too had seen the standing figure of Mrs Duncan trying to dispose of the cloth. Someone in the audience tried ineffectually to knock his torch away. As he redirected it on to the scene, someone in the front row was pulling the cloth out of the constable's grasp. Cross cried, "Did you get the cloth?" "No, it has gone into the audience", replied Worth. "Of course it has gone, it had to go somewhere", commented the enigmatical Mrs Duncan (pp. 53, 67). Mrs Duncan was standing in her bare feet. She bent down and put on her shoes, which were on the floor behind her, and then sat down.

According to Homer, a brilliant torch suddenly shone upon the "spirit friend" who had materialised in the centre of the cabinet. The next moment he was knocked off his chair and fell sprawling on the floor, from which vantage point the exciting events higher up were lost to him. By the time Homer got back to another seat, Mrs Duncan was sitting on an upturned chair outside the cabinet. Constable Cross was very nervous and agitated. He glared and said, "Sit down, Homer", when Homer made to go to Mrs Duncan's assistance (p. 131).

Mr Gill, who was sitting on Homer's left, said that Cross dived forwards, clawed the curtains and fell through into the cabinet on top of Mrs Duncan, who could be seen sitting in her chair. The spirit form vanished down through the floor as Cross came forward. Cross got up and pulled Mrs Duncan out of her chair into the room. (No mean feat in view of their respective sizes.) He seemed scared (p. 148).

Mrs Gill, who sat on Homer's right, said that a boy materialised and came out of the cabinet. He then disappeared, all but a small piece of ectoplasm about the size of a pocket handkerchief to be seen on the floor. The next thing, Constable Cross leapt forward. Thinking he was ill and wanted to get out, Mrs Gill took hold of his arm, but he went straight on, clinging at the curtains and sprawling over Mrs Duncan. He could be seen with legs stretched out, one on either side of Mrs Duncan who was sitting in the cabinet. Mrs Gill cried out, "Oh, don't do it", and rushed into the cabinet after the policeman, throwing her arms round his waist. She then felt that they had all stood up and taken a turn, and she found herself holding Mrs Duncan, who was on an upturned chair, outside the cabinet (p. 152).

This evidence is curious. Mr Gill mentioned that his wife had grabbed hold of Cross as he sprang forwards, but neither he nor any of the other witnesses mentions anything about seeing her on top of the pile of bodies in the cabinet.

Mrs Alabaster, next but one on Homer's left, saw a man rush forward and make a grab at a disappearing spirit form. She heard the curtains drawn apart, and looking into the cabinet she saw Mrs Duncan lolling in her chair. This statement seems entirely contrary to the evidence stating that Cross fell straight through the curtains on top of the medium. Mrs Alabaster went on to say that Cross pulled at Mrs Duncan's chair. There was a scuffle, and at the end of it Mrs Duncan was sitting outside the cabinet on an upturned chair with one shoe off.

Mr Coulcher, who sat at the end of the row on Mrs Alabaster's left, saw Cross dart out and claw at the curtains. The spirit form vanished instantly down through the floor. A light was flashed and the next moment Mrs Duncan was outside the cabinet on an upturned chair with one shoe off (p. 167).

Nurse Rust saw Cross jump out on to a spirit form which vanished through the floor. There was nothing left to grasp and Cross clutched at the curtains and fell through into the cabinet. Mrs Duncan's chair was dragged away from the corner, and she was found sitting with one shoe off just within the cabinet. This is the only witness who said that Mrs Duncan was still in the cabinet.

Once again we find two schools, prosecution and defence, diametrically opposed to each other. Unfortunately this is a common feature of court cases, and need not be due to the allegedly psychic nature of the events. It will be noted that the prosecution maintains a high degree of self-consistency, whereas the defence witnesses flounder somewhat. However, we know that considerable confusion is only to be expected of genuine witnesses at Duncan phenomena.

At the séance of January 14th, which ran its course undisturbed, there were a great many materialisations, and we will close by noting a few of the more outstanding of these phenomena.

Mrs Barnes described how her father, who had been in the Madras police force, materialised a yard away from her. On his head was a white tropical helmet with a red band, which of course appeared black (p. 199). By this statement the witness apparently intended to convey that she presumed that the band was red, as in life, but that under the lighting conditions of the séance it seemed black. If the red light were really not strong enough to show up a red colour, it must have been very dim indeed.

Mrs Jopling agreed that there was a foreign-looking white helmet with a dark band (p. 198).

Worth said that Mrs Homer exclaimed, "Look at the Helmet", which he did as hard as he could, but there was nothing to be seen (p. 47).

Homer saw a white helmet, like a topee (p. 129).

Mackie thought the figure was wearing an ordinary blue policeman's helmet (p. 147).

Mrs Sullivan said it was a dark helmet, but not of English style (p. 180).

Mrs Barnes gave an account of a second materialisation, this time of her granddaughter, Shirley. This was a little girl, some three feet high, who came out to the extreme left of the curtains. She stood a foot away and, taking hold of Mrs Barnes' hand, recited, "This little piggy . . ." in a baby voice (p. 199).

All the defence witnesses were agreed on these points. Homer said he saw the child clearly. She was about three feet high and took hold of Mrs Barnes' fingers as she recited, "This little piggy went to market . . ." Mrs Cole said the same (pp. 129, 155). Mrs Sullivan had noticed the baby fingers (p. 179). Mrs Tremlett said the child was about three years of age (p. 189). In defiance of all these witnesses, Worth swore he remembered no such incident (p. 63).

Another supposedly girlish manifestation was Mrs Duncan's guide Peggy. Worth described her as a bulky, white-shrouded figure that came out of the cabinet and jumped about (p. 45).

Dr Fowler, one of the prosecution witnesses, was more interesting. He said Peggy was a white form about five feet high. He could not see her very well or tell how bulky she was, because the forms had a habit of pulling out the curtains with them, so concealing part of their figure. The curtains were draped in front of the figures, and if wide open the manifestation seemed bulky, but if the curtains were drawn closer together it appeared slim (p. 73).

Mrs Jennings, a prosecution witness, admitted that Peggy came right outside the cabinet and danced about, but the room was very dark and it might have been Mrs Duncan impersonating a slim young girl (p. 98).

Mrs Tremlett said she saw Peggy clearly as a young girl, about eighteen to twenty, not particularly fat (p. 189).

Thus, once again, and for the last time, we have traced the whole gamut of possibilities, from the witness who steadfastly heard and saw nothing, through the more doubtful witnesses, right down to those out and out believers to whom everything was as clear as noonday, every face was recognisable, and every detail vividly remembered.

Without the example of the trial before us, it would have been hard to believe that honest witnesses could be so biased in their observations. In circumstances of excitement, accident, unexpected happenings, etc., complete coincidence of testimony and awareness of detail is not to be expected. Our experience of everyday life in such circumstances show that the human mind is not constituted to be aware of minor details. Only the salient fact, with a minimum amount of detail, is remembered. Cross-examination demonstrates that different witnesses to the same situation take in different items and remember different details afterwards.

In the conditions of Mrs Duncan's séances, with the sitters emotionally implicated, the correct answer to a majority of the questions put by Counsel at the trial should have been, "I don't know, I did not notice that point". The fact that, on the contrary, defence witnesses coincided in detailed evidence favouring the Defence, and prosecution witnesses coincided in detailed evidence favouring the Prosecution, gives us a forcible object lesson of how little the human mind in such circumstances is dispassionate and unbiased. No doubt the witnesses at the trial felt themselves to be giving honest evidence, but all the same their testimony was almost entirely governed by previous bias.

Anyone wanting further evidence of human fallibility will find plenty more illustrations in this informative book *The Trial of Mrs Duncan*.

III. THE LAW RELATING TO PSYCHIC PHENOMENA.

The Treatment of Mediums.

Before plunging into the perilous morass of legal theory, we might first consider the Duncan trial as a purely practical illustration of the treatment a medium and her associates may expect to receive at the hands of the law of the present day.

The spiritualists lent Mrs Duncan every support in her legal battle. Never before had a medium been tried before such high authorities, and the spiritualists were naturally anxious to see how she would fare. They made her trial a test case, hoping for a successful issue that would establish a favourable precedent.

Judge and counsel at the trial were experts of high standing, so we must presume that as a piece of legal investigation it was a model of judicial fairness. As laymen we are not competent to express any other opinion, but as psychical researchers, with standards of evidence peculiar to ourselves, we are entitled to contrast our own methods of judging psychic phenomena with those of the law.

In the first place, in psychical investigations, it is usually the medium alone who stands to suffer after an exposure; but when Mrs Duncan was tackled by the law three other people were charged with her on grounds of conspiracy. They were Mrs Brown, the medium's travelling companion and Mr and Mrs Homer, the spiritualists who employed Mrs Duncan. All were found guilty. Mrs Brown's guilt was established mainly on the grounds that she was present as Mrs Duncan's friend and showed some of the visitors spirit photographs of a type the police were able to imitate. Mr and Mrs Homer brought to the court receipts to show that money left over from the takings of the séances was given to charity. Mrs Homer's chief crimes were encouraging the sitters to speak up and making remarks upon the wonder of the 'phenomena'. The couple were by all accounts sincere spiritualists and respectable citizens, but in the eyes of the law they were guilty of conspiracy and must have known Mrs Duncan was a fraud.

Neither Mrs Duncan, nor Mrs Brown, nor Mrs Homer elected to go into the witness-box to give evidence in their own defence, but Mrs Duncan's counsel called witnesses to try to prove that she had been a genuine medium before and after the 19th of January 1944. The judge decided that this was putting Mrs Duncan's character in evidence and that the jury had therefore a right to know about her previous conviction at Edinburgh (p. 265). He also refused to admit the evidence of alleged test séances held after February 29th 1944, the date on which the accused were committed (p. 236).

The main evidence against Mrs Duncan was the testimony of Lieutenant Worth and Constable Cross. Great emphasis was placed on Worth's description of the bogus aunt and the non-existent sister who appeared to him on January 14th. We have noted in the last section how widely Worth's version of this episode differed from the descriptions of the defence witnesses. His statements remained totally unconfirmed, because the

legal experts failed to question his companion, Surgeon-Lieutenant Fowler, on any of the essential points.

As a witness, Worth was not entirely satisfactory. He admitted to deliberately deceiving the Homers into thinking he was convinced. He had told them that the sitting of the 14th was "amazing" (p. 54). In giving evidence he said he had rung up his mother and confirmed the spirit message about a premature sister. Later on he had to admit in actual fact his mother had had no premature child and was not even on the telephone. When first questioned, Worth also said he had only been carrying out police instructions, but later he recanted again and confessed to acting on his own initiative (p. 70).

Even if we accept Worth's testimony without dispute, there still seems nothing in it to prove fraud when the evidence is considered from the psychical research standpoint. Poor quality communications are not proof of fraud, and in any case the communications have little to do with the nature of the materialisations, which was the main point at issue.

The suggestion of the prosecution was that the materialisations were Mrs Duncan wrapped in a sheet. Cross claimed to have seen and touched this sheet when he pounced on Mrs Duncan at the séance of January 19th, but the alleged sheet was not found and no systematic search of the sitters was made. Much of the evidence of the defence was utterly at variance with the sheet hypothesis. Mrs Duncan was proffered for the purpose of a test séance in court, so that the jury could see the materialisations for themselves. The judge first of all said he would not allow the jury to be troubled with a matter of that sort. Later he asked the jury if they wished to have the opportunity of witnessing such a demonstration. They replied that they did not (p. 305).

With our experience as psychical researchers, and with the whole of Mrs Duncan's chequered history before us, we have some right to doubt the accuracy of the witnesses to her genuineness. Little of this information was officially available to the court, and it is a problem how without it they were able to come to the decision to over-rule the evidence for the defence. One cannot help but feel that their verdict may have been largely decided on *a priori* grounds, or, in common parlance, by personal prejudice.

It is no secret that the police rarely take action against spiritualist mediums unless they become a public nuisance, or unless a member of the public registers an official complaint against them. In the case of Mrs Duncan, it came out that at one of her séances she or her spirits had revealed the sinking of a British warship before its loss had been officially disclosed (p. 337). Were this the true complaint, it is a pity she was not tried on another charge.

The Word of the Law.

There are two acts in the Statute Book of direct concern to everyone interested in psychic phenomena. They are the Witchcraft Act of 1735 (9 Geo. 2, c. 5) and the Vagrancy Act of 1824, 2 (5 Geo. 4, c. 83) with its subsequent amendments. As British Law presumes itself known to all, we had better be familiar with the provisions of these acts, if only for our own protection.

The tone of the Vagrancy Act has all the obnoxiousness of the old "Poor Laws". It was introduced for the swift and certain punishment of idle and disorderly persons. A whole list of offences is covered by the Acts, including obscenely exposing the person in a public place, procuring alms by the exhibition of deformities, a male person living on the proceeds of prostitution, being armed with an offensive weapon with intent to commit a felony, etc. etc.

Every member of the public has the right to apprehend and deliver into the hands of the police any person found offending against the Act. Any vehicle or personal effects in the offender's possession may be taken into custody with him and searched. Any money found on him may be used to pay the expenses of the arrest and the cost of maintaining the offender until the time of committal. If his cash is insufficient for the purpose, the police can sell his belongings.

Once charged as a rogue and vagabond under the Vagrancy Act, the offender can be dealt with summarily in a magistrate's court. He is liable for up to three months' imprisonment and is not allowed the right of trial by jury. Once convicted, his name is placed for all time on the list of "rogues and vagabonds".

For a second offence under the Act, the offender can be tried again at a Court of Petty Sessions without a jury, but he must wait for the next Quarter Sessions for his sentence of one year's imprisonment and a whipping. The Spiritualists are not the only people who have sought for a revision of the Vagrancy acts.¹

The clause by which mediums are classed as rogues and vagabonds reads as follows :

"Every person pretending or professing to tell fortunes, or using any subtle craft, means or device, by palmistry or otherwise, to deceive and impose on any of his Majesty's subjects."

Mediums are not specifically mentioned in the wording of the clause, but it has been held to include them by a decision of the High Court of Justice in 1877 on the appeal of a medium named Monck. Monck, who had been charged under the Vagrancy Act, appealed on a point of law. The accident of a deficiency of judges in the Divisional Court of Appeal was the cause of the case being heard in High Court. Monck claimed that his mediumistic demonstrations did not come under the jurisdiction of the Act, but his appeal was quashed on the grounds that the words "subtle craft" included supposed communication with spirits.

Efforts have been made to relieve spiritualists and mediums from prosecutions under the Witchcraft and Vagrancy Acts, but so far without success. In 1930 a Bill entitled the *Spiritualism and Psychological Research Exemption Bill* was discussed in the House of Commons. It was ordered to be brought in by a number of supporters of the spiritualist case, among them being Sir Ernest Bennett, Mr Oliver Baldwin, Mr D. G. Somerville, and Miss Wilkinson. But it failed to attract sufficient attention and was finally dropped.

Under this Bill no person was to be prosecuted or convicted under the Statutes relating to witchcraft or vagrancy in respect of any act done or words spoken in the promulgation or exposition of the teachings of

¹ See, for instance, *Justice in England*, by a barrister, (London), 1938.

spiritualism, or in the pursuit of psychical research. Thus promoters, chairmen, lecturers, clairvoyants and mediums were to be protected, but any immunity was not to apply where intention to defraud was proved. Mediums and clairvoyants were defined as persons holding a certificate or "licence of fitness to practise," such certificates to be issued by "registered or properly constituted spiritualistic or psychical societies, or such other certifying or licensing body" as might be approved by one of His Majesty's Principal Secretaries of State.

The Spiritualists' National Union have also made attempts to obtain some modification of the Vagrancy Act in its application to mediums. A deputation to the Home Office in 1930 included Sir Arthur Conan Doyle, Hannen Swaffer and the Rev C. Drayton Thomas. Another in 1943 had Mr Loseby, barrister, as chief spokesman, and included Lord Dowding and Dr S. J. Peters, M.P. They failed to secure any amendment to the Vagrancy Act, but in November 1943 Mr Morrison, at that time Home Secretary wrote to Dr Peters as follows :

"I appreciate, however, the feelings of spiritualists on this subject, and I have made enquiries as to prosecutions under this Act. I understand that it is the practice in some Police Forces in cases of this kind to institute proceedings only against persons whose activities have been the subject of complaint by members of the public, and where there is evidence that the person is an impostor and taking money or other valuable consideration. Although I have no power to issue any directions to the police as to the manner in which they should enforce the law, I have asked the Chief Constables to consider the adoption of this practice in their Forces. Further than this I cannot go, but, if the practice I have described is generally adopted, persons *bona fide* engaged in the ministrations of the spiritualist churches and in psychical research should not find themselves hampered by the provisions of the law."¹

With this semi-assurance they and we must rest content.

The Witchcraft Act of 1735 repeals the previous Act of King James the First against Conjurament and Witchcraft. It forbids proceedings against any person or persons for witchcraft, sorcery, enchantment, or conjuration, and goes on :

"And for the more effectual preventing and punishing of any Pretences to such Arts or Powers as are before mentioned, whereby ignorant persons are frequently deluded and defrauded ; be it further enacted by the Authority aforesaid, That if any Person shall, from and after the said Twenty-fourth Day of June, pretend to exercise or use any kind of Witchcraft, Sorcery, Inchantment, or Conjurament, or undertake to tell Fortunes, or pretend, from his or her Skill or Knowledge in any occult or crafty Science, to discover where or in what Manner any Goods or Chattels, supposed to have been stolen or lost, may be found" they shall be guilty of an offence against the Act. The penalty is a year's imprisonment.

We may note in passing the specific reference to finding lost articles by psychic means, a feat that has been recorded many times in the annals of psychical research.

Mrs Duncan was tried under the Witchcraft Act on a charge of conspiracy

¹ See " Report of the Deputation from the Spiritualists' National Union to the Home Office ", (Manchester), 1944, p. 16.

to pretend to exercise or use a kind of conjuration. Sir Gerald Dodson was at pains to explain that the emphasis was on the word "pretend". The Lord Chief Justice, Viscount Caldecote, made the same point in his judgement on the appeal (pp. 321, 348). Presumably if Mrs Duncan's materialisations had been considered genuine, and not a pretence, they would not have constituted an offence, although this was not stated in so many words.

The grounds of Mrs Duncan's appeal included one important point of law, namely whether the word "conjuration" in the Act applied only to personal conference with the Devil or Evil Spirits (p. 347). It was decided that the word had a wider meaning and applied to converse with any kind of spirit. The appeal was quashed.

Possibly as a result of the publicity given to the Duncan trial, questions were asked in the House of Commons on May 3rd 1945 regarding the law relating to the activities of spiritualist mediums. Mr Herbert Morrison replied that, while he had no power to determine questions of law, he had been advised that the provisions of the Witchcraft and Vagrancy Acts made it quite clear that the mischief aimed at was fraud and imposture. He reaffirmed that the police had been advised by the Home Office to institute proceedings only where there is sufficient evidence that the person is an impostor.

In reply to a question by Mr Montague, the Home Secretary said he had been advised that it was not criminal to undertake spiritualist séances. The Lord Chancellor had written to Lord Dowding expressing that view.

This very rough survey of the state of the law with regard to psychic phenomena brings to a close our résumé of the main points raised by Mrs Duncan and her sensational trial.

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH

PART 173

THE *MODUS OPERANDI* OF PARANORMAL COGNITION ABSTRACT

THE object of this paper is twofold. It is in the first place an attempt to deduce something of the nature of paranormal cognition from an examination of the collected evidence, and secondly to show that the completely controlled type of experiment is misleading if employed alone. The reason for the latter is that experiments in paranormal cognition, if controlled as rigidly as in physical science, and if amenable to statistical treatment, *must* make use of extremely restricted events, such as card-guessing. Such events serve to demonstrate the existence of paranormal cognition, and to show certain of its minor features, but not to elucidate its nature : they are too devoid of qualitative content. It is here pointed out that by *selecting* their evidence, workers in the field of statistical experiment have reached erroneous conclusions ; and the plea is put forward that theoretical conclusions should not be based on selected evidence but on all the evidence treated impartially.

If the material quoted, and its significance, has been dealt with at some length, this is because it was felt that the points arising in an issue of such importance for psychical research must be made abundantly clear.

The method of approach here used to the problems of paranormal cognition is different from that now in vogue. It points to the conclusions (1) that paranormal cognition is known to consciousness only by means of an entirely secondary phenomenon, (2) that it is not a faculty akin to sense-perception, and (3) that experiment in a neglected field is needed to reveal more of its nature.

A suggested experimental programme is briefly summarised at the end of the paper.

THIS Society has now carried on its work for sixty-four years, and it is natural to ask what progress has been made towards establishing an understanding of the faculty which was at first called " thought-transference ", and later " telepathy ", and which has now been subsumed, together with the faculties called " clairvoyance " and " precognition ", under the term " extra-sensory perception ".

The term, " extra-sensory perception ", which was proposed by Prof. J. B. Rhine, is written with a hyphen between the words " extra " and " sensory ". This suggests a faculty akin to sense-perception, though beyond it. It suggests, in fact, that we know that this faculty can properly

be called "perception", and in this, I think, we are allowing assumption to outrun evidence. On the other hand, if the hyphen be placed between the words "sensory" and "perception", the term implies no more than that we are dealing with *something* which is beyond sense-perception. It gives no hint as to what that "something" is; and the title becomes unnecessarily negative. For this reason I have preferred to speak of "paranormal cognition" rather than of "extra-sensory perception" or "extra sensory-perception". But even this title is not altogether satisfactory, for sometimes it is paranormal *action* or paranormal *feeling* with which we have to do rather than with paranormal *cognition*. Moreover, it may be doubted whether the *whole* of the phenomenon can properly be called "paranormal".

Dr R. H. Thouless, with Dr B. P. Wiesner, has proposed the term "psi-phenomena", which has the advantage of avoiding the word "perception"; but I believe that he intends this term to apply to a wider range of phenomena than that covered by paranormal cognition. On the whole, the latter seems to me, for the present purpose, to be the best term to use.

If progress is to be made towards understanding something of the nature of paranormal cognition, and if we are to avoid blind alleys and false and misleading hypotheses, it is absolutely essential that *all* the relevant material should be examined. Assumptions should not be made unless checked against all the available evidence. Reference to our *Proceedings* shows that this kind of critical examination was made more often in the earlier days of the Society than it is to-day. For example, Mrs Sidgwick's paper *On the Evidence for Clairvoyance* was published in 1891; her paper *On the Evidence for Premonitions* in 1888; *On the Trance Phenomena of Mrs Piper* between 1908 and 1911; F. W. H. Myers's paper *On the Subliminal Self* before 1901; Edmund Gurney's work on Hypnotism, Telepathy and Apparitions before his death in 1888. Attempts of this kind to extract the significance of the collected evidence by critical analysis are far fewer in later volumes of the *Proceedings*. A new technique has been introduced in recent years, that of the experiment which can be completely controlled and statistically evaluated. This has been designed to render psychological research more "objective". It is all to the good as far as it goes; but unfortunately those who pursue it have neglected to compare their results with past work or to apply critical analysis of the above kind. Workers in statistical experiments assume that they have made a new start—and that the previous work was only preliminary and need not be taken into account either in planning further experiments or in formulating hypotheses. To what erroneous conclusions this attitude can lead will be shown presently. It is a mistake to think that psychological research can be carried out in sections and that the investigator can build a comprehensive hypothesis based on one section of the evidence only, while ignoring the rest. Also, in my view, it is necessary in this subject not only to examine the whole of the evidence but also to step frequently outside the laboratory and survey the whole field of the paranormal in order to get one's perspective right. The extent to which workers in statistical research have ignored other evidence is shown in certain recent publications.

For example, in the book entitled *Extra-Sensory Perception after Sixty Years* (1940) by Prof. J. B. Rhine, J. G. Pratt, Burke M. Smith, C. E. Stewart and J. A. Greenwood, bearing the sub-title, *A Critical Appraisal of the Research in Extra-Sensory Perception*, only $2\frac{1}{2}$ pages out of 409 are devoted to spontaneous cases of extra-sensory perception, and only one page to experimental work of a non-statistical kind. All the rest of the book is devoted to a discussion of evidence derived from the statistical type of experiment. Mr Whately Carington published in 1945 a book entitled *Telepathy*, bearing as its sub-title *An Outline of its Facts, Theory and Implications*. Seven pages out of 170 are devoted to spontaneous cases and none at all to non-statistical experiment. He also propounds in this book a theory of telepathy based almost entirely on the results of statistical experiments, and appears to be unaware that these experiments do not reveal the most important features of telepathy.

It is necessary here to make a somewhat tiresome digression in order to justify the use of the term "statistical experiment". It has been pointed out that there is in theory no "statistical method" of experiment in the sense of a separate principle of research which alone makes use of statistics. Statistics are applied wherever they are needed, and they are particularly needed in dealing with chance-coincidence. This is quite true in general. But in psychical research the most important phenomena are not of a nature which lend themselves to statistical treatment, because they concern the spontaneous behaviour of human beings, and their essential characteristics are qualitative. If statistics are to be applied to coincidences in the field of psychical research, this involves the *selection* of paranormal events to which statistics can be applied; and so long as the investigators insist on applying statistics, they limit themselves to an examination of these events. Experiments made with these restricted events lead to different conclusions about the nature of paranormal cognition from the conclusions pointed to by less restricted paranormal events, and the experimenter who attempts to theorise on the basis of statistical experiments alone is likely to be misled. This will be demonstrated later. My point for the moment is that it is legitimate, as well as convenient, to speak of "statistical experiments" because they stand apart as a class on account of the fact that the events they comprise have been chosen *in order* to suit a pre-determined method of research.

I shall now consider what light the evidence in general throws on the nature of paranormal cognition.

THE RELATION OF PARANORMAL COGNITION TO CONSCIOUSNESS

The first thing to be noticed is that paranormal cognition is not a conscious process. No percipient of telepathy, clairvoyance or precognition, so far as I can gather, has ever been consciously aware of a telepathic, clairvoyant or precognitive *process* at work within him. No one has been able to say: Now I am conscious that a telepathic message is coming to me from origin *X*; or: Now I am aware of the process of clairvoyantly perceiving an object *Y*; or: Now I am conscious that knowledge of a future event *Z* is reaching me. It is always the *product* and never the *process* of paranormal cognition of which the subject is aware. In this

respect paranormal cognition resembles normal sense-perception and also memory.

Perhaps some percipients, if asked, would at first be inclined to claim awareness of the process ; but I do not think they would persist in this claim when once they had grasped the difference between *process* and *product*.

If it be agreed that there is valid evidence for paranormal cognition, and if it be also agreed that the process of paranormal cognition is not open to conscious inspection, it follows that that process does not take place in consciousness. It takes place, therefore, outside consciousness ; that is to say, in the language of psychical research, it takes place in the "subliminal self". I have heard this referred to as an "assumption" and as a "speculation" ; but what other conclusion is possible?

What is it, then, in a case of paranormal cognition, which takes place in consciousness? It is awareness of the *product* of the paranormal, cognitive process.

THE PRINCIPLE OF MEDIATION

If we approach paranormal cognition from the angle adopted in this paper, two important facts strike us at the outset. (i) *The product of the paranormal cognitive process is not paranormal.* (ii) The product of the paranormal cognitive process is also the product of cognitive and other processes which we are not in the habit of calling paranormal. These statements will be best understood in the light of a few examples. I will deal with the second statement first.

1. *Normal Cases.* An instructive case is that of Mr A. (*Proc.* xviii, 308). Though normal in every other respect, Mr A. had very bad eyesight. One day, while walking along a country road, he saw the stone wall beside the road with extraordinary clearness, each separate stone being visible with the mortar between the joints. Here and there, broken granite stones showed felspar and quartz reflected in the sun's rays. Mr A. thought he had never seen a wall so minutely before. When he came to a part of the road where there was no wall in reality but only an iron railing, he still saw the wall, but he did not see the railing. Then he shut his eyes and found that he continued to see the wall with the sun shining on it, just as clearly as before. Presently the wall disappeared from his visual field ; but flowers and various coloured designs took their place, and these visual hallucinations lasted for some days. Then they ceased, but returned the next year. These visual hallucinations had two marked characteristics : they were extremely bright, being almost luminous ; and they were quite clear, having none of the haziness which marred Mr A.'s normal vision.

I do not wish to enter into problems of sense-perception, which properly belong to the fields of philosophy and psychology ; but I would stress the view that the cause of Mr A.'s visions, whatever it may have been, lay entirely within Mr A. himself. The objective part of Mr A.'s visions had no physical existence in the space surrounding him ; neither had the visions any cause residing in external space. The cause of them lay within the totality of Mr A.'s psycho-physical personality.

Perhaps the word "hallucination" should not be applied to such completely constructed visions as these. It may be that, following Prof. H. H. Price's suggestion (*Perception*, p. 198), they should rather be called "apparitions". But the apparitions I shall have to deal with in the examples following have varying degrees of perfected constructability and varying kinds of externality, and it will be more convenient to call these "hallucinations". The important point is that these sensory hallucinations are *constructs* or *creations* for which some factor in the percipient himself is responsible, though that factor is excluded from normal consciousness.

2. The following is another case of visual hallucination. Mr F. C. Constable (*Proc.* xxi, 510) wrote: "I have frequently to walk from my house to the village club. The road outside the house runs for perhaps twenty yards, with trees on one side and iron fencing on the other. Then comes a five-barred gate, which I have to open to pass through into an open field. The road is naturally very familiar to me. At nightfall, when on leaving the light of the house, I can at first see nothing and, later on only the path very dimly, and objects definite but at a yard or two, the following false visualisation is of almost common occurrence. I see the bars of the gate before me crossing my path before I come to the material gate. . . . This false visualisation has occurred, very possibly twenty or thirty times during the last three years, and carefully dissecting my experience, I am of opinion that the false visualisation is, to me, as real and definite as visualisation resulting from the material. I should perhaps state that this false visualisation is unique in my experience." Later Mr Constable added: "Last night walking to the club, I determined to 'bilk' the hallucination. As I walked I marked a tree on my right and said to myself: 'Now the gate is within three feet of me.' I looked. There was the gate. I walked to it. It was not there, but some six or seven feet distant. I looked again at the tree (remember it was but a dim shadow in the darkness) and I saw I had mistaken it for another."

The hallucinatory gate was as real and definite to Mr Constable as the hallucinatory wall was to Mr A. But the Constable case reveals another feature. Something resembling a *motive* appears. There was an *expectation*, amounting to a subconscious *idée fixe*, that the gate was in a different position from that which it really occupied; so the constructor of the hallucination responded to this suggestion by causing the gate to appear in accordance with the expectation.

The motive in Case 1 is not very obvious. We are told that the beautiful and highly coloured designs which Mr A. saw were a source of great pleasure to him, so that the motive may have been a subconscious desire to compensate the percipient for his bad sight.

3. A very similar case was recorded by Miss Ina Jephson (*Journal*, xxvii, 184). While staying with friends, Miss Jephson received a letter from her lawyer saying that a cheque for £10 was enclosed. Having no time to deal with it at the moment, she says: "I carried it about, peering into the envelope occasionally to see whether the cheque was safely there. It was finally packed with special care and I had pleasing memories throughout the day of seeing the marbled pale colours of the cheque and the look of the writing on it." When she arrived home, Miss Jephson

looked into the envelope but found no cheque. She searched for it everywhere in vain, and at last wrote to her lawyer saying that she must have lost it and asking him to stop payment. By return of post he answered with an apology, saying that he had omitted to enclose the cheque but would forward it at once. Miss Jephson says that she could hardly bring herself to believe that all this had been a hallucination. She adds: "If cross-examined in a court of law I would have said with complete and absolute conviction that I had seen and handled the cheque in the first letter." The apparitional cheque was as good an imitation of reality as in the previous cases; and this time the sense of touch seems to have been hallucinated as well as that of sight. The motive is again strong expectation generated by the statement made in the letter that the cheque was enclosed.

4. The following case, though of the same type, shows an interesting difference (*Proc.* xi, 423). The percipient of this hallucination went into his office one night after dark, and, wishing to pass from the front room to the back along a narrow passage, which was usually kept free from obstructions, he started to walk rapidly along it. "I had proceeded six or eight feet in this rapid manner," he says, "when suddenly I saw a bright yellow light lighting up very plainly the back of the chair which was in the passage. The light was confined to the chair, and at the same time I stopped short. The stopping was quite involuntary on my part. The light lasted for but a second, but it had shown me the chair distinctly, especially the earving on the back of the chair." He searched in vain for some explanation of the light, which had shone only in one place so as to illuminate the chair. In this case the constructor of hallucinations, instead of creating a hallucinatory object which was not there, created a hallucinatory light to illuminate a real object, which shows adaptation to circumstances. The motive was to give warning of danger.

5. So far the hallucinations have been visual. But the following case illustrates a different kind of appeal to consciousness. A man had landed from a steamer (*Proc.* xi, 422) and was attempting to make his way along the dock-side to his hotel. It was night, and the darkness was increased by the shadow of a warehouse which fell across his path. After following for a short distance the edge of the quay, the narrator says: "I suddenly felt so strong an impulse to turn and go the other way that I instantly obeyed. I saw nothing, heard nothing; I did not even have an impression of danger, though I did have a feeling that it must be in some way better to turn. I distinctly remember that my reason protested, and berated me for a fool for taking a roundabout way to my destination when the straight way lay before me, with the added prospect of losing myself in the railway yards with perhaps a ten-foot fence to climb. I laughed aloud and articulated or at least mentally formed the words, 'You fool! What are you doing this for?' However, my impulse proved stronger than my reason. I persisted in 'going round Robin Hood's barn', reached my hotel, and there the matter passed from my mind." Next day he came back to the place and found that just beyond the point at which he had turned back the dock was cut away to form a steep slope, and, if he had gone on he would have fallen onto this and have slid into the river and most probably been drowned.

Here the motive is again a warning. One must suppose that the sense of sight had perceived the danger by such light as there was, but so faintly that the signal never reached consciousness. Hence the subliminal self created this impulse to return as a means of stopping the percipient quickly. The impulse to take a certain course of action was a messenger to consciousness just as were the visual hallucinations in the other cases.

6. Another case was that of a dentist (*Proc.* xi, 424), who was bending over an apparatus for vulcanising rubber, when he heard a voice calling to him in quick and imperative tones, "Run to the window, quick!" This was twice repeated and the dentist ran to the window and looked out into the street. At that moment the vulcanising apparatus exploded so violently that it broke the bench on which it stood and went through the ceiling. No one else was in the room at the time. Again the motive was to warn the conscious mind. We may suppose that the danger was subconsciously observed by the dentist; but the method of mediating the subconscious knowledge to consciousness was this time by means of an auditory hallucination, probably the best way of eliciting a quick response.

7. A more complex way of conveying subliminal knowledge to consciousness is reported in *Journal* xxx, 180. Mrs Max West had lost a ruby out of her ring while she was washing some clothes in a sink. Thinking the ruby had gone down the drain, she gave it up for lost. "The following morning I was in the same room", says Mrs West, "when I seemed to hear somebody say, 'What about that ruby?' and without thinking that I was alone audibly replied, 'Oh, that's gone for good, it is of no use troubling about that.'" By that time I realised that I was replying to no visible person, but before I could think further, I seemed to be grasped by the shoulders and twisted round and the first thing my eyes rested upon was the ruby on the floor, shining in a shaft of sunlight made by the outside door being open a crack. I do not wish it to be thought that I felt my shoulders grasped any more than I heard any particular person's voice, but that I was aware of myself as a person inside my body but the same shape which heard and felt quite well without my body."

Here the motive, which was the desire to find the ruby, is obvious; but the method of informing consciousness was this time a good deal more complex. It was both auditory and tactile and was, in fact, a little drama. This time the hallucinations do not seem to have been quite like normal perceptions.

8. The Rev. P. H. Newnham, who was an entomologist, reported the following experience (*Proc.* xi, 411). "I have on many occasions throughout the last thirty-five years at least experienced the sensation of a soundless voice speaking words distinctly into my ear from outside of me. Whenever this has been the case, the information or advice given has invariably proved correct. . . . In July 1858 (I believe, but it may have been June 1857), I was visiting friends at Tunbridge Wells and went out one evening entomologising. As I crossed the stile into a field, on my way to a neighbouring wood, the voice distinctly said in my right ear, 'You will find *Chaonia* on that oak.' (This was a very scarce moth which I had never seen before and which most assuredly I had never consciously thought of

seeing.) There were several oaks in the field, but I intuitively walked up to one, straight to the off side of it, and there was the moth indicated."

The motive here was Mr Newnham's interest in rare moths. The mode of informing consciousness was again an auditory hallucination, which was this time fully externalised in distinction to the partially externalised hallucination of Case 7. We may suppose that Mr Newnham subconsciously saw the moth flying towards one particular tree; but the supposition is rather far fetched, since the moth was found on the off side of it.

These eight cases are examples of mediation to consciousness of subconscious knowledge by means, chiefly, of sensory hallucinations. They do not involve the paranormal. The sensory and impulsive experiences were not in themselves paranormal; and the information conveyed may be explained as originating in a normal source. But in cases 6 to 8 the information *might* have been acquired paranormally. There is of course a very wide field of sensory hallucination which is not regarded as paranormal-hypnotic, eidetic, pathological and occurring incidentally in ordinary life. It is unnecessary to deal with this here. The cases quoted are sufficient to show (1) that sensory hallucinations are unconsciously constructed by the percipient, (2) that the senses of sight, hearing and touch can be hallucinated with great perfection, and also with varying degrees of perfection. (Probably taste and smell can also be hallucinated if occasion arises.) (3) that an impulse to action may take the place of a sensory hallucination, (4) that all these are *messages* from the subliminal self to consciousness, (5) that all are created in response to something which may be broadly called a subconscious "motive". In all this we are concerned with psychological processes which may be called "normal", since they are produced by standing mechanisms forming an integral part of every normal human being.

In the above cases it was not only the mechanism of mediation that was normal: the subject-matter of the hallucinations and the motives which gave rise to the phenomena were normal also. But the whole of the phenomena originated in the subconscious region of the percipient's personality. So far we have not left the field of normal psychological happenings.

THE MEDIATING VEHICLE

The function of these hallucinations and impulses was to *mediate* something to consciousness—some urge or desire or motive existing in the subliminal portion of the self. I shall in future call them "Mediating Vehicles". One important thing to notice is that the full-blown hallucinations we have been considering (more properly called "apparitions") are only the end term of a series. Visual hallucinations may be fully externalised in space and may appear to be exactly like normal, visual percepts. But they may also appear like a picture framed in a hole in the wall, or may take the form of a vision seen in a crystal or of a vivid semi-internal image, or of a dream. There are all gradations, and the fully externalised hallucination differs from the others only in degree and not in kind. With auditory hallucinations it is the same. The voice may be fully externalised, as in Cases 6 and 8, or partially externalised as in Case 7. A tactual hallucination may be fully externalised, as in Miss

Jephson's apparent handling of her cheque in Case 3, or partly externalised, as in Case 7. All are *constructs*, and all are mediating vehicles, whose function it is to bear some kind of message to consciousness.

Paranormal Cases. In examples 4 to 8 the view was taken that the knowledge mediated was obtained from faint, unnoticed registrations made by the normal senses. This explanation wore rather thin in Cases 7 and 8.

9. The following case takes us over the border. I will call the percipient in this case Mrs "Field". Members of the Society will find her real name in *Journal* xxxi, 53. She says: "Early in January I was staying with my sister. The day before I left I had a letter from my daughter R. in which I read, 'Nanny is in bed with bronchitis.' I read it out to my sister. I wrote to my daughter V. to tell her. When I got home next day my first question was, 'How is Nanny?' R.: She's all right, I suppose. I: You said she was in bed with bronchitis. R.: No, I never said such a thing. Next morning I went to see how things were and found N. just out of bed and very sadly indeed, having had bronchitis. I: Miss R. told me you had had bronchitis. Miss R.! But she didn't know! I wouldn't tell her to trouble her. Getting home I looked again at the letter. I knew exactly the place on the page where I had seen, 'Nanny is in bed with bronchitis'; it wasn't there or anywhere else in the letter, nor was there room in it for a single extra line. Nanny had been greatly longing to see me to pour all out but wouldn't write, as I was on a holiday."

The motive in this case was of course Nanny's intense desire to see Mrs Field and pour out her troubles to her, a motive which may have been intensified by having been repressed. Mrs Field's daughter says that Nanny was "rampant" to see her mother. The mediating vehicle was a visual hallucination of exactly the same kind as in Cases 2 and 3. The only difference is that in this case the motive was in someone else's mind and not in that of the percipient. That makes the case paranormal. But there is no difference in the psychological mechanism which mediates the idea to consciousness. That is no more paranormal in this case than it was in the others. Indeed, if one compares Cases 3 and 9, the impression is strong that the paranormal element in 9 is only incidental. If it is desirable that something be notified by the subliminal to the supraliminal, the former just ignores the fact that sometimes the information may be in what we call "another" mind.

10. A very similar case was reported in *Journal* xxvii, 326. Permission to quote this has not been given, but members will find the case at this reference. The brief facts were that a person died in the night and her friend, living in another place, awoke in the morning to see a piece of paper lying on her pillow with a message on it saying that so-and-so died last night. From the name given there could be no doubt about the person meant. The paper and message were hallucinatory and vanished.

11. All these cases illustrate the function of the mediating vehicle. The next case, however, tells us something else about it. A certain Mrs B. (*Journal* x, 162) had a son H., who was in the army and in West Africa. One night she dreamt that she saw a young sergeant look in at the door of a room she seemed to be in, and she asked him, "Where is H.?" He replied, "Don't be alarmed; they are carrying him along all

right. He has broken his leg. You cannot see him yet but you will by and by." The fact was that H. at the time was ill and was being carried in a palanquin. He became worse and died early the following month. But he had not broken his leg. That accident had happened to him years before when he was five. So the dream, which was in this case the mediating vehicle, was called upon to do double duty, first to mediate to the percipient's consciousness the paranormally acquired knowledge of her son's critical illness, and secondly to mediate a remembered fact which was emotionally linked with it. Notice that the two facts, derived from different sources, are not kept apart in the mediating vehicle. The young sergeant is made to weave the two facts into one and the same message. Thus, different motives can make use of one mediating vehicle. This shows that we should be careful how we speak of a "telepathic dream". It would be more correct to speak of a dream which contains a telepathic element. Similarly telepathic experiments should be planned, not merely to yield a significant number of successes, but to afford a means of studying how the successes are obtained. They should be planned to help us to study the formation of the mediating vehicle. Once its presence and function are grasped, we are saved from the mistake of regarding paranormal cognition as a kind of "sixth sense" working in a way analogous to sense-perception.

There is no need to quote other examples of a mediating vehicle which has been pressed into service for more than one purpose. The principle can be seen in a large number of cases. We have merely to remember that the mediating vehicle, like a taxi, can be shared by two or more passengers.

The above cases are all spontaneous. I will now quote an instance of experimental paranormal cognition.

12. A series of experiments in telepathy was tried by Dr S., a physician of San Francisco, and his wife, when the two were nearly a hundred miles apart (*Proc.* xi, 455). The case was investigated by Richard Hodgson. At a fixed time each day Dr and Mrs S. arranged to sit for thirty minutes for telepathic results, each acting alternately as agent and percipient. The experiment taken as a whole shows that chance cannot reasonably account for the coincidences obtained (unless more potency is attributed to chance in a telepathic experiment than would be attributed to it in other connections). Some of the results suggest precognition. A single day's record will be sufficient for the present purpose :

" May 12th.—

Transmitter, Mrs S.

Arrived safely. Pleasant trip. B. feels fairly well. We have a nice place in an old-fashioned house.

May 12th.—Received.

Had a good trip, B. slept well. House squarely built and plain ; porch surrounded by trees ; not fronting the road ; rooms very sunny. [All accurate. What follows was seen clairvoyantly, apparently. Ed.] Landlady wears sunbonnet with jacket of same. Little boy three years old. [Boy expected, but did not arrive until next day. The description accurate.] Fire in north east. [Fire occurred next night.]

The mediating vehicle apparently took the form of visual hallucinations very slightly externalised, for Dr S. says in the course of his account that everything he received came to him in the form of mental pictures. The motive, as in all experimental cases, was of course the desire to obtain a telepathic result.

One thing shows clearly here, which it is of importance for anyone who experiments in paranormal cognition to notice, and that is the large amount of veridical material which the percipient produced over and above that which the agent endeavoured to send. Some of these items were pre-cognitive. This shows that telepathy does not consist in the transmission of the *conscious* thoughts of the agent to the percipient. Any suggestion to this effect that experiments in card-guessing and the like may present should be regarded very critically. There is not sufficient content in the card-guessing event to reveal this feature, which is further demonstrated in Case 13.

The process of mediation of paranormal cognition to consciousness by means of a mediating vehicle is precisely the same in experimental as in spontaneous cases. The event, if it is to be informative and not misleading, must possess a certain amount of qualitative content. The experiments in telepathy carried out by Miss Miles and Miss Ramsden (*Proc.* xxi, 61) are well worthy of study from the point of view of mediation. They show the often symbolical nature of the mediating vehicle and the part played by association of ideas in the formation of one vehicle after another. I shall not occupy space by quoting these experiments here in detail, but would point out the necessity for carrying out experiments of this kind if we are to learn more about paranormal cognition.

Many more cases, both spontaneous and experimental, could be quoted to illustrate the fundamental fact that paranormal cognition is mediated to consciousness by means of psychological constructs. I began by quoting eight cases in which these constructs were shown mediating subconscious knowledge which was not paranormal because it had been acquired (or so we assumed) by normal means. I then passed to a case (No. 9) in which a precisely similar construct mediated subconscious knowledge which *was* paranormal because it had been acquired from the mind of another person. There was no difference whatever in the mechanism of mediation. Exactly the same type of visual hallucination was employed, in the one case as in the others. I then quoted a case in which the mediating vehicle, this time a dream, conveyed a piece of paranormal knowledge and an old memory at the same time. The same piece of mechanism embodied both. A study of these cases shows that there is a *motive*, or something comparable with a motive, behind the creation of these vehicles or messengers to consciousness. In Case 1 this may have been an impulse to artistic expression and a subconscious wish to give to the percipient a pleasure which he normally lacked; in Cases 2 and 3 a fixed expectation found self-expression: in Cases 4, 5 and 6 the motive was a desire to warn against danger: in Cases 7 and 8 the motive was to satisfy the percipient's normal interest: in Case 9 the motive was a suppressed desire to confide a trouble to another. They are psychologically the same type of thing. The fact that in Case 9 the motive originated in *someone else's* mind and not

in that of the percipient seems to be incidental. It certainly carries us across the partition which we place between the "normal" and the "paranormal"; but it suggests at the same time that this partition may be artificial. When in Case 11 we find the same vehicle used to mediate both what we call the normal and the paranormal, this suggestion is intensified. In any case, whether we choose to call the matter which is mediated normal or paranormal, it is clear that the mediating vehicle itself is in all cases normal. It is produced by psychological mechanism which is an integral factor in us all.

Approached from the point of view which I have selected, paranormal cognition is clearly seen to consist of two quite distinct factors, (1) paranormal cognition in its essence, which is a function of the subliminal self, of whose nature and processes consciousness knows nothing, and (2) the mediating vehicle, which is a psychological construct contrived by some factor of the personality, which lies outside consciousness, in order to convey to consciousness at second hand some knowledge of the genuine paranormal cognition.

This is the fundamental fact to bear in mind when formulating hypotheses about this faculty.

It is customary to speak as if we know that there are different kinds of paranormal cognition, (*a*) telepathy, (*b*) clairvoyance, (*c*) precognition and (*d*) retrocognition. But if the above facts are grasped, we shall realise that we do not know anything about the nature of paranormal cognition itself. Starting with the assumption that there are these different subdivisions of the faculty, we may, by varying the conditions, appear to find support for the view that one or other of them is operating separately. How careful we have to be in drawing such conclusions will appear presently.

13. *A Simple Case of Paranormal Cognition.*

The following case of paranormal cognition, which would on the face of it, be usually classed as a case of spontaneous telepathy, has been chosen on account of its simplicity. It will be useful to examine it carefully. It is, indeed, little use accumulating such cases unless we extract from them what light we can on the processes involved. Can it be explained by telepathy? If so, by what sort of telepathy? Or can it be explained by clairvoyance, that is to say by a faculty of paranormal perception which reveals physical objects and events in a way which is comparable with that of normal sense-perception?

A certain lady, a Mrs Conner (*Proc.* vii, 35) when going up the steps of her house in Washington, D.C., stumbled and fell, her hat going one way and the papers she was carrying another. At or about the same time, a friend of hers, a Mrs B., while sitting sewing in a room of her house a mile and a half away, had a waking vision of the accident. The separation in time between the accident and the vision cannot have been more than an hour and was probably less than half an hour.

Mrs B.'s account, written on the evening of the day of the occurrence (which took place between 2 and 3 p.m.) and before she had heard of it, is as follows. "I was sitting in my room sewing this afternoon about two o'clock when what should I see but your own dear self; but Heavens! in what a position. Now, I don't want to excite your curiosity too much,

or try your patience too long, so will come to the point at once. You were falling up the front steps in the yard. You had on your black skirt and velvet waist, your little straw bonnet and in your hand were some papers. When you fell your hat went in one direction and your papers in another. You got up very quickly, put on your bonnet, picked up the papers and lost no time in getting into the house. You did not appear to be hurt but looked somewhat mortified. It was all so plain to me that I had ten notions to one to dress myself and come over and see if it were true, but finally concluded that a sober, industrious woman like yourself would not be stumbling around at that rate and thought I'd best not go on a wild goose chase. Now, what do you think of such a vision as that? Is there any possible truth in it? I feel almost ready to scream with laughter whenever I think of it; you did look *too funny* spreading yourself out in the front yard. 'Great was the fall thereof.' I can distinctly call to mind the *house* in which you live, but for the life of me I cannot tell whether there are any steps from the side walk into the yard, as I saw them or not. Now do tell me, dear, if I saw correctly or not, or if the thing was shown me simply to give me something to laugh about? "

In reply to questions, Mrs Conner affirmed that the description of her clothing was quite correct; that when she fell on the steps the time was almost exactly nineteen minutes to three. Mrs B. did not notice the exact time, but states that her experience occurred "about two o'clock". The two events were probably not separated in time by more than forty minutes and may have been more nearly coincident. An experience so vivid that the percipient sat down at once to write an account of it, coinciding with the event in such detail and so nearly in time, cannot reasonably be attributed to chance. Also the vision was not a dream but a rare waking experience. Mrs B. was not familiar with the house as Mrs Conner had only moved into it a few days before.

This is a simple case of apparent telepathy; but we have also to consider whether it might not be a case of clairvoyance. Regarding it as a case of telepathy, we are confronted at once with a difficulty. Mrs B., in this vision which was "all so plain" to her, saw Mrs Conner as the latter would have appeared to an outside observer standing nearby at one particular point in space. But no one is consciously aware with any degree of accuracy of his detailed appearance as an outside observer would see it. People who, by means of an arrangement of mirrors, see themselves from unwonted angles, are often much surprised at their own appearance. It is not in the least likely—in fact it is impossible—that Mrs Conner, even had she been a superlative artist, could, without the aid of mirrors, have painted a portrait of herself exactly in every detail as Mrs B. saw her in the vision. No one knows consciously all the details needed to make such a picture. Can we suppose that these details are known subconsciously and can be telepathically transmitted to a percipient? I think if we assume subconscious knowledge of the full details of anyone's personal appearance as seen from *one* particular point in space, we must assume that this knowledge also extends to every other view-point. This would imply subconscious knowledge of an infinite amount of detail, all so precise and clear that when objectified in sensory hallucinations the result is indistinguishable from normal percepts. This is surely a large order. In

addition, there is the evidence of the cases already cited that it is the percipient who constructs these hallucinations ; and we know that they may be partly symbolical in character and need not by any means faithfully portray the real details. In the light of this it seems more likely that the subliminal self of the agent is not aware of an unlimited quantity of detail, but is aware of his bodily appearance in some more general fashion, and that the percipient is able to abstract from this general knowledge the specific and limited aspect he requires.

It may help us here to remember that we *think* of the world about us in one way and *perceive* it in another. We think of it in terms of propositions : we perceive it in terms of sensory images. Suppose that *X*, a friend of ours, is about to leave London, we think : *X* is now in Paddington station. That is a proposition which we cannot convert, as such, into sensory terms. We cannot *see* *X* in Paddington station with the degree of generality that the propositional statement implies. We can see him only in much more restricted ways, at the booking-office, or at some particular spot on the platform, or getting into the train. And we can see him in any one of these positions from an indefinite number of points of view. But we cannot, by the use of our senses, perceive the propositional situation that we think of. That propositional situation comprises an infinite set of disjunctive sense-situations. It is by means of sense-perception alone that we become aware of the surrounding physical world ; that is to say, knowledge of the world we live in, as we gain it, is of a much more limited, piecemeal and unintegrated kind than is thought.

Now, the direction in which it seems to me that the evidence for paranormal cognition points is that the subliminal self is capable of something which is more like an *immediate awareness of propositions* than it is like sense-perception. I do not wish this statement to be taken too literally. It is only a groping attempt to get a little nearer to the truth. Quite possibly the nature of paranormal cognition is beyond our understanding.

The proposition, "*X* is in Paddington station now," covers (a) an infinite number of physical situations, any one of which *X* might be occupying now in the station, and (b) each one of which could give rise to an infinite number of groups of sense-data, since in each position he occupies, *X* may be sensed in an infinite number of ways. Also, (c) *X* in any one of these physical situations could be represented by any one of an infinite number of sets of mental images or hallucinatory pictures.

I suggest that Mrs Conner's subliminal self was aware of her bodily appearance and situation in a way analogous to an awareness of a proposition, and that in this way the awareness was shared by the subliminal self of Mrs B. This subliminal sharing constitutes telepathy. But this propositional awareness must be of such a nature as to be able to supply the materials out of which any one of an infinite number of hallucinatory representations of itself can be constructed. Mrs B. subconsciously constructed one of these and presented it to her own consciousness.

That I am being vague about the nature of this propositional awareness, and also about the way in which it contains, potentially, an infinite number of specific, hallucinatory self-representations of itself, I freely admit. All I say is that the evidence seems to me to point in this direction. The propositional awareness need not be mediated to consciousness by means

of a sensory hallucination. As we saw in Case 5, it may be by an impulse : it may also be by means of words. In automatic speech and writing the mediating vehicle assumes a verbal form.

It might, perhaps, be urged against the view I have suggested that in a verbal form the mediating vehicle would be itself propositional. But are there not propositions of varying degrees of generality, and may not the generality of a verbal mediating vehicle be of a lesser degree than the generality of the subliminal knowledge which it mediates?

We thus see that if telepathy is the explanation of this simple spontaneous case, it is a telepathy which is very different from thought-transference as usually understood. It was not Mrs Conner's conscious thoughts which were transmitted to Mrs B. but a general, subconscious awareness which we are far from understanding. That Mrs Conner was consciously aware of her situation was an attendant feature of the case, which may have been quite irrelevant. Certainly a conscious *intention* to produce telepathy is not essential to its production ; for Mrs Conner did not intend to make herself visible to Mrs B., and in the numerous spontaneous cases of telepathy, the intention to produce it is as a rule absent. We must not, therefore, approach experimental telepathy with the idea that the conscious thought of the agent impresses itself on the percipient. The most that we can legitimately assume is that the *desire* on the part of both agent and percipient to produce a result has some directional effect on the process. I shall in future call the kind of telepathy, or thought-transference, in which the agent's conscious thoughts are supposed to be transmitted to the percipient " naïve telepathy ".

Can we explain Case 13 by means of clairvoyance? This would mean that Mrs B. paranormally perceived Mrs Conner's prostrate body as it lay on the steps. This suggestion meets with a difficulty at once. The case is a spontaneous one and therefore Mrs B. knew nothing about it beforehand, or at the time, until she experienced the vision. Supposing, therefore, that she possessed a clairvoyant faculty which was capable of revealing to her physical objects, what was there to direct the faculty to this particular object? Had she received a telepathic message from Mrs Conner, that would have enabled her to direct her supposed clairvoyant faculty to Mrs Conner's body? But if we assume telepathy there is no need to assume clairvoyance. Having defined the clairvoyant faculty as a form of sense-perception, we cannot endow it with a power of self-direction which enables it to seek out particular situations which have the appearance of being telepathic. A clairvoyant faculty, as defined, might just as well have lit upon any other physical object as upon Mrs Conner's body at the precise moment when it lay on the steps of her house.

It may be, however, that we ought to allow that if there is such a thing as a clairvoyant faculty, it might have a particular habit of browsing among the physical things which particularly interested Mrs B. I am not quite sure to what extent we could assume that the faculty could do this without being consciously directed by its owner. We do have to direct our vision consciously to this or that object. Perhaps it might not be quite the same with clairvoyance. But let us suppose that the clairvoyant faculty is confined to those physical objects and events which particularly interested Mrs B. It will then be equally likely to fall at any moment on any one of

Mrs B.'s friends, on any one of her books, papers, household possessions or the distant things and places which interest her. It was a remarkable coincidence if it fell on Mrs Conner at the precise moment when it looked as if she might be in a position to send a telepathic message to her friend. And again, if it is equally likely to fall on any of the objects which interest Mrs B., it must surely have fallen on many such objects again and again. Where are the sudden visions of her relations in all sorts of positions, of her books, of her silver spoons, of her bank-book, of her furniture and of a hundred other things? How is it, if it is due to clairvoyance, that this vision of Mrs Conner is almost unique in her experience? This case of Mrs Conner's does not differ from dozens of other examples of apparent spontaneous telepathy. Such cases evidently cannot be explained by clairvoyance, because clairvoyance, if it is to explain them, would need telepathy to direct it.

While we are considering this case, it will be as well to examine another hypothesis, that of a non-physical body which can travel through space. The idea that there is such a body has given rise to the term "travelling clairvoyance". In spiritualist circles it is usually referred to as the "etheric" body. Whether there is in fact a non-physical body of some kind is really a separate question from whether such a body could explain the facts of apparent telepathy or apparent clairvoyance. With regard to the latter problem, can we suppose that there is a non-physical body which travels through physical space and perceives (or causes its owner to perceive) a physical object or scene at a distant place? Mrs B.'s non-physical body must have disengaged itself from her material body and travelled a mile and a half through *physical* space to look at Mrs Conner's material body. Anything which can travel through space must have a position in space, since to travel is to change spatial position. But how can a non-material body occupy a definite position in space? How would you measure the number of inches to a non-material body from the four walls of a room? If the body is non-material, there is nothing to define the position of its outline. With what speed does the body travel? This is a legitimate question, since it is said to travel through space. What propels it? By what means does it steer a definite course to its destination? Why, if non-material bodies are sometimes observable, are they never observed *en route*? And when the non-physical body arrives, what happens? How is the object seen? Do physical light-rays enter the non-physical eyes of the body and produce non-physical effects on its non-physical organs and brain? Surely physical light-rays must produce physical effects on physical objects. And even if the non-physical brain is affected, why should that produce the same sensations in the mind of its owner as are produced by effects in the physical brain? It seems that we must postulate a non-physical space for the non-physical body to travel in and non-physical light-rays to affect it, while these non-physical light-rays must be reflected from non-physical duplicates of the physical objects perceived—in fact the physical body and the physical world must be provided with non-physical duplicates. Everything physical must have a non-physical parallel down to the last detail. It is true that we must not reject a hypothesis because it is strange; but can we really duplicate the entire physical world and then put "non" before it? Besides, there is another

fact which points against this space-travelling view. The distant scene is not by any means always seen accurately. There was a case in which a clairvoyant was asked to give the position of the body of a person who had been drowned in a lake. She said that if one stood at given position on the bank, the body would be found so many yards to the left. Actually the distance given was correct, but the body was to the *right*. This sort of thing points much more to the *creation* of a scene which *represents* the events than to any direct vision of them. Of course a subject who has the experience of seeing a distant scene has the *feeling* of being physically present there, just as a spectator of a film depicting scenes in a distant country has to a certain extent the feeling of being there and would have that feeling much more strongly if the film were able to present the scene in three dimensions as extending all round him. But this feeling is not necessarily veridical.

The most plausible hypothesis to account for Case 13 is the telepathic hypothesis; yet it is a telepathy which is not like thought-transference. The clairvoyant hypothesis we have found untenable; and also the hypothesis of a non-physical body which travels through physical space.

A More Complex Case of Paranormal Cognition.

14. A complex reciprocal case, which is often quoted (*Proc.* vii, 41), is that of Mr and Mrs Wilmot. The essential facts are that Mr Wilmot was voyaging home to America in a ship in which he shared a peculiarly shaped cabin with a companion, a Mr Tait. One night he "dreamt" (at any rate he calls it a dream) that he saw his wife, who was then in bed in her home in the United States, come to the cabin door, pause irresolutely on the threshold as if embarrassed by the sight of a stranger in the cabin, then advance to his bedside and caress him. This scene was also witnessed by Mr Tait, who was awake, and was occupying the berth above Mr Wilmot. So real was Mr Tait's vision that he challenged his companion in the morning with having received a visit from a real woman. On arriving home, Mr Wilmot discovered that on that very night his wife had had the experience of seeming to travel across the ocean to a ship, of entering a cabin, whose peculiar shape she described, and of visiting her husband in the manner he had experienced. She was also aware of the presence of Mr Tait in the upper berth.

Can this case be explained by clairvoyance? Mrs Sidgwick when dealing with the case remarks: "I should still hold with Mr Gurney that this [the fact that Mrs Wilmot had tried to establish voluntarily communication with her husband at the time of the experience] is no reason for regarding the incident as other than telepathic, for there is as little ground for supposing that Mrs Wilmot could have perceived psychically *any* cabin as there is for thinking that Mrs Paquet [a case previously quoted] could have had a vision of *any* death-scene. In other words, it is probable that the presence of the husband and brother respectively were essential conditions of the percipience, which, therefore, depended on some unknown process of communication from mind to mind. The fact that Mr Wilmot at the same time dreamt of his wife seems to me, if anything to strengthen the telepathic hypothesis because it shows that there was actually a community of mental impressions." This is precisely

the point we have been discussing. Without guidance, the clairvoyant faculty would never have hit upon the appropriate target at the appropriate moment ; and how could this guidance have been given without telepathy? The clairvoyant explanation of this case involves the preposterous view that three clairvoyant faculties, belonging to Mr Wilmot, Mrs Wilmot and Mr Tait, respectively, all converged upon the same scene at the same moment without anything to direct them. Clairvoyance as an explanation is surely here out of the question.

It is true that this case, when superficially regarded, does suggest a travelling, non-physical body. We have seen the difficulties this view involves ; but it is worth while bearing it in mind while we look at some further examples of paranormal cognition.

15. Mr J. Kirk carried out some experiments in which he tried to make himself visible to a distant percipient (*Journal* v, 21-30). He was successful in doing this : the percipient saw his apparition. As Mr Kirk sat in his room acting as agent in these experiments, his attention was attracted by a strong disc of light coming from the under part of the lamp-shade. This was so conspicuous that he thought he would try fixing his attention on it. He did this, and the percipient then saw a luminous cloud which concentrated into a bright disc. Here we see that, without any change of method, a case of apparitional appearance changes into an ordinary case of experimental telepathy. Some would regard the appearance of Mr Kirk's apparition in a distant room as proof of his non-physical body having travelled there. Would they say that when he concentrated his attention on the disc of light from the lamp that *its* non-physical body travelled there as well? Would they say that in every telepathic experiment the non-physical body of the object thought about travels to the percipient? If not, is it not clear that in all cases, whether the percipient perceives an inanimate object or a human being, what he perceives is his own unconscious *construct*? It may be fully externalised and appear to occupy a place in the room ; or it may be only partially externalised ; or it may be merely a mental image. In all cases it is a construct and acts as a mediating vehicle to consciousness.

In the Wilmot case I suggest that it is the same. All the visual hallucinations, whether of the cabin or its occupants or of Mrs Wilmot herself, were *constructs*. There was no real travelling through space, and no clairvoyant perception of physical objects. If we must classify these cases, they were telepathic in the sense that there was no paranormal perception of physical objects or events. But, although in a sense telepathic, they were not cases of simple thought-transference.

A Further Difficulty for Clairvoyance.

16. Another difficulty which confronts us when we try to explain cases of ostensible telepathy by clairvoyance is the fact that the event sometimes takes place a good deal earlier than the percipient's experience. Mrs Paquet's case affords an example of this (*Proc.* vii, 32). She had a vision of the death of her brother, complete with veridical details, about six hours after it occurred. If clairvoyance is a kind of paranormal sense-perception, it must surely reveal what is happening in the present and not what has happened in the past. To account for its presenting the past,

we should have to suppose that the act of perception was subconsciously performed at the time of the event, and that it was fitted with a delay-action which only allowed it to reach consciousness at some later period. But this would in reality take away from clairvoyance the character of being a perceptual sense, which is given to it by definition. It could no longer be held that the percipient, by means of clairvoyance, perceives a distant physical event. It would have to be admitted that what he consciously perceives is a hallucinatory scene constructed for him here and now. In other words clairvoyance becomes, not a faculty of perception, but a mechanism for mediating and relaying to consciousness knowledge which has been acquired we know not how. As such, it is no longer "clairvoyance" as that faculty is defined. I shall in future refer to clairvoyance, defined as a faculty of paranormal perception of physical objects and events, as "naïve clairvoyance".

The time-lag, which so often accompanies paranormal cognition, seems equally difficult to reconcile with the hypothesis of a travelling, non-physical body.

17. "Travelling Clairvoyance".

Some of the most suggestive evidence in paranormal cognition occurs under the heading of "travelling clairvoyance". Most of this evidence has been obtained with a particular kind of subject who passes easily into light hypnosis. One of these sensitives, called "Jane", was "mesmerised" at intervals during a long period from 1845 onwards for the sake of her health. Jane was by all accounts a simple and honest woman, the wife of a Durham pitman, and her case was witnessed by the Rev. C. Green and his two sisters, one of whom married a cousin of F. W. H. Myers. The latter, who was interested in the case, says that Jane never received any fee or made any exhibition of her faculty, which she concealed as much as she could (*Proc.* vii, 53). When in the hypnotic state, Jane would begin to talk in childish language and would ask to "travel". Dr F., who hypnotised her by looking at her steadfastly, was the principal witness. Jane was a sensitive who naturally, and without any elaborate process of being hypnotised, fell into a suggestible state. When in it, she could be verbally directed to "go" to any desired place and to describe what she saw there. The value of such a sensitive for research does not seem to have been realised at the time, and the case was not as carefully conducted as it should have been. Dr F.'s notes were not taken with sufficient care. Still, Jane did just the same kind of thing as is recorded of several other sensitives of the same type. When "hypnotised" (though the state seems to have been more like spontaneous trance) and told to go to a certain house and report what was going on there, Jane did so with a considerable degree of success, though she also produced a certain amount of failure. She was verbally directed from point to point in an imaginary journey by the investigator, and questioned as to what she saw as she progressed. The scenes she perceived were extremely real to her. We read that "in the spirit she still feels in a body and expects people to see her and resents being jostled by a crowd, was nearly run over by horses and a carriage. Once when told to go and see a friend, she called out, 'What a rude man, he has nearly run over me with his prancing horses.'"

We are told that she did not know the man with the prancing horses, who actually lived in the south of England while Jane lived in the north ; but she described his profession of homoeopathic medicine, and when she reached his front door, read the name " Williams " correctly on the door-post.

In one house to which she was told to go, she described a cradle which was rocking with no one near it. It turned out that the baby had a habit of rocking itself. In another house she read the word " Salve " on the tiles outside the door ; and in case after case she described details which she did not normally know, and which could not reasonably be ascribed to chance.

On one occasion Dr F. tried an experiment with a patient of his, Mr Eglinton, which shows how experiments in paranormal cognition could be planned with this kind of subject, which might throw real light on its nature. He told this patient to be in a particular room in his own house at a certain time. Jane was then verbally led to the house and, on her own initiative, supplied correct details of the surroundings on the way, which supplemented those she was told of. For example, she asked : " Is it the red house with a brass knocker ? " Dr F. replied : " No, it has an iron knocker." But, he adds, that he afterwards looked and found that the door had an old-fashioned brass handle in the shape of a knocker.

Directed to Mr Eglinton's room, Jane described a very fat man with a cork leg coming into the room and seating himself at the table with papers before him and a glass of brandy and water. Asked if she could see his name on any of the letters, she spelt out letter by letter the word " Eglinton ". Dr F. thought the whole of this description wrong, because Mr Eglinton was very thin and had no cork leg. Actually it was, in a curious way, true ; for Mr Eglinton had made a dummy by stuffing his clothes to produce the appearance of a very fat man and had seated the dummy at the table with the papers and the brandy and water as described. Jane was firm on the point that it was brandy in the glass and no other liquid. She took the dummy for a living man with a cork leg. There was no cork leg ; but the mode of representation supports the view that the whole scene was a sensory construct, the cork leg being inserted as a kind of compromise between the superficial inference that the man was alive and the deeper knowledge that the figure was counterfeit. Jane's spelling of the name " Eglinton " was correct, whereas Dr F. had thought till then that it was spelt " Eglington ".

There is no suggestion in all this that Jane's non-physical body travelled to Mr Eglinton's house and took up a post of observation in his room. The information was all paranormally accessible in the knowledge of Dr F. and Mr Eglinton, and the scene could easily have been a sensory construction. But there is still the question of whether the information was acquired from these two minds or by naïve clairvoyance. The false details of the fat man coming into the room by the door, and the cork leg perhaps tell a little against the clairvoyant view ; but the question needs much more consideration. On either the telepathic or the clairvoyant view, it must, I think, be agreed that what Jane saw was a *constructed* vision of the type we call " hallucinatory " ; that is to say it was what I have called a " mediating vehicle ".

I do not wish to lay too much stress on the "Jane" case, since it is not as strong evidentially as might be wished. But Dr Alfred Backman, of Kalmar in Sweden (*Proc.* vii. 199-220 and 370-73) carried out experiments with several subjects of a similar type to Janc, and there seems to be no reasonable doubt that he was a careful and conscientious investigator. He was visited in 1891 by F. W. H. Myers, Dr A. T. Myers, Prof. Richet and M. Houdaille, who were allowed to witness and to conduct certain experiments. F. Myers says: "Perhaps the most important outcome of our visit was the conviction that all of us gained as to the absolute candour and disinterested desire for truth with which Dr Backman's experiments are conducted and the simplicity and good faith of the subjects whom he employs."

Backman's sensitives were Anna Samuelsson, Alma Radberg, Miss H. L., Ebba Lundberg, Hilda Ljunggren, Agda Olsen and "Cecilia". They mostly came to him as patients. It is noteworthy that he says: "In the first place I have found that unless I have been unusually fortunate in meeting with clairvoyants, they are not so rare as is generally supposed. On the contrary, a great number of persons capable of being hypnotised have clairvoyant faculties." It is extraordinary that this hint should never have been followed up by those who later made experiments in paranormal cognition.

18. Alma Radberg, when "lightly hypnotised", was given a folded letter written in French, a language she did not know, and at once described the writer and, in general terms, the contents of the letter. "Alma was then awakened; but (as usual with Dr Backman's subjects) she remembered her trance-sensations, and was able to add further details." We are told that the description of the writer of the letter was "practically correct" and the gist of the letter was also true. Like "Jane", Backman's sensitives were directed verbally. The conditions for investigating "extra-sensory perception", or paranormal cognition, were almost perfect. Not only could Alma describe what she saw while in her light hypnotic trance, but she could amplify her descriptions after waking.

19. Another subject, Anna Samuelsson, was directed to "go to Kalmar", 13 miles away, and to go to Backman's house there. She described the town and the house and its inmates, seeing a little boy "double". There were actually twins in the house. She then described a young girl so exactly that Backman recognised a Miss H. W., whom he had not supposed to be in the house. It was afterwards revealed that she was not, but that his wife had been speaking to her at the time on the telephone.

Anna was "led" in the usual verbal way to the house of the Quartermaster and described correctly who was there and what the Quartermaster was doing, mentioning a long stick leaning against the wall. Lottery numbers were foretold and half were right.

Alma Radberg is described as being a pious and good girl with some intelligence and not hysterical, but highly suggestible both when awake and when hypnotised. She was so suggestible that it is stated that a blister was produced on her skin by cold water, which, it was suggested, was burning sealing wax.

Alma was usually asked to describe the interiors of distant houses and to

say what was going on there. She was "sent" to the house of the Director General of Pilotage at Stockholm, where neither she nor Dr Backman himself nor his wife, who was present, had ever been. She described the interior of the principal room minutely and correctly. She then described the house of Captain Smith in Norrköping. After waking, she described these two houses still more distinctly.

On another occasion, Alma was "sent" to the Director General's house at Stockholm while he was there. She saw a bunch of keys on his table and was told to shake them and to put her hand on his shoulder. This was repeated two or three times. The Director General, before he heard of the experiment, said that his attention had been fixed on the day and hour because he had then had a strange experience. While occupied with his work, he began to notice the keys. Then he caught a glimpse of a woman. This was repeated, and he got up to look but found no one there. The keys did not rattle or move. He discovered that no woman had really been in the room.

In another experiment, Alma was asked to describe a prepared room at Stockholm, and the people who were in it. A pair of scissors had been hung by a rubber otoscope from the chandelier, which Alma described approximately. She got the number of persons in the room right and some other things wrong, but correctly described some of the furniture. Dr Backman says that he sent his notes about the experiments made to Dr Kjellman at Stockholm before he knew anything about the results, and these notes were sent to the Editor of the S.P.R. *Proceedings*.

Two subjects together, Alma and Miss H. L., tried to describe the interior of a prepared room in Stockholm. Miss H. L.'s statements were all wrong, and Alma's were only partly right. It is worth while noticing the vague kinds of approach which Alma makes to the appearance of the objects in the room. For example a dead hen with a silver spoon in its bill had been placed on a tray. Alma says: "on one corner of the table there was a tray with small objects on it, long and yellow". The hen was yellow in colour. (See *Proc.* vii, 210-1.) All this suggests the creation of mediating vehicles which only approximately convey the paranormal knowledge.

In one experiment a paper with the word *Hund* written on it was placed in his room by Dr Kjellman at a certain time every day for a week, and Alma was asked to try to read it *without being hypnotised*. Under these conditions, she only got the first letter, *H*.

Agda Olsen, another sensitive of the same type, also remembered her hypnotic experiences after waking. There had been a murder, and Agda was told to see the murder, the murderer, his house and his motive. She gave a fairly detailed account of these, afterwards corroborated by the police. One statement, that a certain church could be *seen* from the murderer's house, was said by the police to be incorrect. But Agda said: "The church of Wissefjerda is situated obliquely on your right when you are standing in the passage." Backman says that this statement is correct as to the bearing of the church. Agda did not say that it could be *seen* from there.

When told to look in a crystal, Agda saw several things correctly.

There is an interesting account of an achievement by another sensitive,

of the same type, Cecilia. A tiny silver revolver had been apparently hopelessly lost in the sand. Cecilia was suggested with the idea that she would be able to go and find it. She did so and brought it.

F. W. H. Myers and his party were not able to be with the sensitives long enough to overcome their shyness in the presence of strangers. Nevertheless they had two successes which they described as being "decidedly corroborative of Dr Backman's results".

At the beginning of his account, Dr Backman says: "The experiments to be recorded do not claim to be considered strictly scientific, but I describe them simply as I have made them, in the hope that others may be incited to carry out similar attempts in a more systematic and scientific manner than my practical occupations have given me time for." (*Proc.* vii 109.) This was written not later than 1891. It is extraordinary that scarcely any attempt should have been made since that date by our Society to carry out experimental work on these lines.

Other experiments, somewhat casual in type, but all of the same kind, are the following.

Mr T. Criswick (*Proc.* vii, 94) said: "I tried to send some persons to sleep, etc. by gazing into their eyes, by passes from the head downwards, etc. and found several sensitive. One of those that was susceptible to the influence was a Miss R. After falling into the so-called mesmeric sleep, it was easy to induce her to talk, to get up, etc., and in her, as well as in others, I was always struck by the improvement of expression during the sleep." He used verbal direction.

Mr J. J. T. Glover (*Proc.* vii, 95) hypnotised a young man called G. F. and obtained results by verbal direction.

Mr H. T. Humphreys (*Proc.* vii, 96) hypnotised a man called Edward Maguire. He says: "I put him to sleep, and it then occurred to me to try if he were clairvoyant." He was; and "went" where directed.

Mrs Stella of Chieri (*Proc.* vii, 99) describes a visit to a sensitive who was placed in a "state of trance or mesmeric sleep", and described her stepson with details when given some of his hair as a psychometric object.

There is also the remarkable Mexican sensitive, Senora Z., who worked entirely with psychometric objects and who was visited and examined by Dr Walter Prince (*Proc.* A.S.P.R. xv, 189-314 and xvi).

An important feature of these experiments lies in the mistakes and inaccuracies of the sensitives. They are helpful in the study of the construction of the mediating vehicle. In Case 19 Anna described a woman as present in a house when she was really 20 kilometres away and was speaking on the telephone. Here it looks as if the constructor of the mediating vehicle, when in uncertain touch with paranormal knowledge, was influenced by a rationalising faculty or by inference, and allowed this faculty to play a part in the construction of the mediating vehicle. All this is very unlike naïve clairvoyance. The next case is interesting from this point of view.

20. An experiment was tried by Dr A. S. Wiltse (*Proc.* vii, 77) with a sensitive named Fannie G. A man, well known in the part of Kansas where he lived, as Uncle Julian Scott, had ridden into the Emerald River and been drowned. Fannie G. was a servant girl whom Dr Wiltse describes as being "an excellent subject for hypnotism". Having hypno-

tised Fannie, Dr Wiltse asked her what had become of Unele Julian. He directed her verbally to the river, and took her slowly along it in an imaginary boat, telling her to look down into the water. At a certain place she said there was a hat. "Soon after this she announced an object near the left bank of the stream and asked to be paddled over there. Then asked if we did not see an old tree-body under the water near the bank. Q. : 'All right! Here we are!' . . . : 'What is it Fannie?' F. : 'Some big dark thing ; I can't see what. There is a saddle there. Don't you see it?' Q. : 'Yes, Fannie, what else?' F. : 'Something, but I can't see it good ; the water is muddy. The saddle is there. I can see it, and one stirrup is gone.' Q. : 'All right. Can you see anything on the bank that we may know the spot as we come back?' F. : 'Why, of course. Don't you see how the sand is worked up in that low spot around the roots of that tree?'" All this is not very valuable as evidence for paranormal cognition, for Wiltse does not seem to be quite sure that the saddle was ever found in the place described although it was generally supposed to have been. But it is evidence of the circumstantial realism which the experiences had from the percipient's point of view. It has the *appearance* of clairvoyance.

Wiltse himself, however, witnesses to the accuracy of the rest of Fannie's statements. They passed down the river on their imaginary journey until Fannie said : "'It will be no use *ever to look below right here!*'" Q. : 'All right, Fannie. We will go back, but first show us some mark by which we shall remember the place, can you?' 'Why, don't you see?' she exclaimed in a tone of seeming disgust. Q. : 'What is it, Fannie?' F. : 'Oh, don't you see that tall bridge?' Q. : 'Where, Fannie?' F. : 'Why, right there! We just now passed under it, right there it is.'" There was only one bridge across the Emerald River in those parts, an iron railway bridge, which Dr Wiltse says he was sure Fannie had never seen. It was at a wild and almost inaccessible spot in the mountains several miles away. When asked what kind of a bridge it was Fannie said it looked as if it were made of iron. The body was actually found some days later by a train-hand, who saw it from a train crossing the bridge. It had lodged upon an old drift just below the bridge. So Fannie was right in saying that it would be useless to look for it lower down the river. This *looks* like clairvoyance. But the interesting part of the case is yet to come. As Fannie was being verbally directed home again after her imaginary voyage on the river, a rumour was started that the body had been recovered and taken to the house of Uncle Julian Scott's son. This rumour was whispered to Dr Wiltse. Thereupon, in order to try an experiment, he said to Fannie : "Let's go into the Scott's and warm." Fannie agreed, and when she seemed to herself to have entered the house, she said : "Why, they have found Unele Julian and got him laid out." She then described the relatives and friends who were there, and how they were crying, etc. The whole of this scene, just as apparently real to Fannie as the river scene, must have been obtained telepathically from the minds of the bystanders, as there was no truth in it. But Fannie knew nothing of any change in the source of her information. Can we really suppose that in the river scene Fannie was clairvoyantly seeing the physical peculiarities and details of the river by a kind of paranormal sight, while in the Scott's

house she was witnessing a scene constructed to convey a general but erroneous belief in peoples' minds? Surely it is clear that in both cases we are dealing with the same process, the *creation* of a hallucinatory mediating vehicle which conveys information somehow held by the subliminal self or selves of those concerned. Whether we call it "clairvoyance" or "telepathy" is a matter of choice; but it is not *naïve* clairvoyance or *naïve* telepathy—it is neither thought-transference between conscious minds nor paranormal perception of physical objects. We do not know what paranormal cognition is behind the mediating process, which is all that consciousness is concerned with.

21. The next is a remarkable dream-case reported to the Society by Mr Dudley F. Walker (*Journal* xxiv, 379). It was a dream of a very extraordinary kind, for the percipient says of his experience: "I might mention it has made a deep impression on my mind, and although I have never given serious thought to this subject, I am now perfectly convinced that this was no ordinary dream. It was so remarkably true to life that it seemed more like a vision of events taking place than an average dream." This must be taken into account in any estimate of the probability that chance might account for the coincidence between the dream and the events. The question would be: How many dreams of railway accidents had Mr Walker had which were so vivid and realistic that he felt compelled to recount them on getting up in the morning, which made him say that if he had had to make a railway journey that day he would have postponed it, which impelled him to make a note of them in his diary, and which made him feel too unwell to eat any breakfast, but which yet did not correspond with any real events? It is clearly no use estimating (even if it could be done) how often the subject of trains or railway accidents may have flitted through Mr Walker's ordinary dreams, because this dream was evidently not in the same category as ordinary dreams. Any statistical calculation made on that basis would be merely misleading. In answer to the question, "Have you ever had a similar dream?" Mr Walker replied, "No. Never of an event which has actually taken place." Also in reply to another question, Mr Walker added: "I can most emphatically assure you that I have never before dreamed of either a railway smash or any other kind of violent accident, and, as a matter of fact have all my life been a very rare dreamer. This has been a subject of remark in my family, for I have often passed for months without ever dreaming at all—or at any rate never having any remembrance of dreaming after waking. . . ."

But the question is not merely how many dreams of railway accidents Mr Walker had had which had corresponded with no reality, but how many he had had which contained *all the details* which this dream shared with the reality. It is surely obvious to common sense that chance is an absurd explanation, and to demand a mathematical demonstration of this fact would be equally absurd.

As to the time-coincidence, the collision occurred about 11.20 p.m., and Mr Walker began to dream about it soon after he fell asleep at 10.30 p.m. and he seems to have gone on dreaming about it at intervals through the night.

The following is Mr Walker's account of the dream. "I was in an overhead signal-box extending over a railway line I had never seen before.

It was night, and I saw approaching what I knew was an excursion train, full of people returning from some big function. I knew it was my duty to signal this train through, which I did, but at the same time I had a feeling that the train was doomed. (I have nothing to do with railway work.) In my dream I seemed to hover in the air and follow the express as it slowed round a loop line. As it approached a station I saw, to my horror, another small train on the same line. Although they seemed both travelling slowly, they met with terrible impact. I saw the express and its coaches pitch and twist in the air, and the noise was terrible. Afterwards, I walked beside the wreckage in the dim light of dawn, viewing with a feeling of terror the huge overturned engine and smashed coaches. I was now amid an indescribable scene of horror, with dead and injured people, and rescue workers everywhere.

Most of the bodies lying by the side of the track were those of women and girls. As I passed with some unknown person leading me, I saw one man's body in a ghastly state lifted out and laid on the side of an overturned coach. . . ."

I am here concerned only with the light which cases of this kind can throw on the *modus operandi* of paranormal cognition. There are features in this case which assimilate it with cases of "travelling clairvoyance". Mr Walker seemed to *be* in the overhead signal-box from which he saw the train approaching. Then he seemed to be hovering in the air following the express as it went round the loop line. Then he seemed to be walking beside the wreckage. We have already dealt with the arguments against the view that a non physical body, travelling through space and obtaining a close-up view of events, can account for cases like this, and found it unpalatable. The question lies between a telepathic and a clairvoyant explanation. In favour of the telepathic view we must note that all the information which entered into the dream could have been obtained from the minds of the signalman or others on the spot. Also, Mr Walker had a curious feeling of being *identified* with the signalman. He says: ". . . I had an awful feeling of horror, and that it was my fault; due to the fact, no doubt, that I was under the impression that I was the signalman who let the train through." Again, Mr Walker says: ". . . I dreamt again about being in the signal-box after having attended some official enquiry in which I saw a number of men seated down each side of a long table." Mr Walker says that in his dream he had a feeling that something was wrong in the signal-box, owing to a clicking noise; and the signalman, Garrett, said that his attention was drawn to a clicking noise in the lever frame. This feeling of being identified with the signalman strongly suggests telepathy. The dream throughout was, of course, a dramatic construct—a mediating vehicle—which conveyed the paranormally acquired knowledge to consciousness.

Again, in this case the telepathic hypothesis does not suggest that anything like naïve "thought-transference" is taking place. It suggests that the whole situation has been grasped, including both physical events and mental or emotional states. Knowledge of the physical events need not have been acquired by direct perception of physical objects, so long as any minds were aware of these events. Had the dream been precognitive, it might have been said that no one was aware of the events, and therefore

telepathy could not be invoked. But, by similar reasoning, it could be said that the physical events had not yet happened, and therefore clairvoyance could not be invoked either. From this point of view naïve telepathy and naïve clairvoyance are on a par. Actually, Mr Walker thought that he fell asleep about 10.30 and began to dream about the accident at once, that is about fifty minutes before it occurred. But I do not think we can be sure that any part of the dream was really precognitive.

If we try to explain the dream by clairvoyance, we arrive at no explanation of the feeling of identity with the signalman, and of sharing his emotions. That, on the clairvoyant hypothesis, would have to be a dramatic element imported to give atmosphere by the dream-constructor. But the chief argument is that which we find in all spontaneous cases. Why should Mr Walker's clairvoyant faculty have pitched on this event? If the answer given is, Why should it not?, the counter reply is obviously that if it did so it would surely pitch on a great many other events as well. One can scarcely imagine that a clairvoyant faculty would emerge from oblivion once in a lifetime, coincide with a remarkable event by chance, and then retire again. For in this railway accident, the percipient had no personal interest. There was nothing to guide a faculty of naïve clairvoyance to its goal. We have found nothing so far to suggest that clairvoyance, in the sense of direct paranormal perception of physical events, ever takes place. And I think it may be questioned whether information received in the form of a dream is compatible with clairvoyance as above defined.

PRECOGNITION

If precognition be admitted to be a fact, naïve telepathy and naïve clairvoyance at once become suspect. Precognition breaks away from causality somewhere. Does it seem likely then, that telepathy and clairvoyance, if they exist, are normally causal processes? Since telepathy is apparently sometimes precognitive, and naïve clairvoyance (if it exists) is similarly sometimes precognitive, is it likely that these two forms of the paranormal cognitive faculty are processes taking place in the world of time and causality while precognition is a totally different kind of process which breaks away from time and causality?

22. The following case of spontaneous precognition contains some informative features (*Proc.* v, 322).

Mrs J. Schweizer wrote as follows: "On the 18th July I had the following dream or vision (I can't say which):—I was walking on the edge of a high cliff, the open sea in front, dear Fred and a stranger a little in advance, when Fred slipped suddenly down the side of the cliff, and in doing so gazed with the *most* intense anguish into my very soul. I shall *never* forget that look. I turned to the stranger and said, 'May I ask who you are and what is your name?' He replied, 'My name is Henry Irvin.' I said, 'Do you mean Irving the actor?' He said, 'No, not exactly: but something after that style.' I said, in reply, 'Now that I look at you, you have the same agonized expression in your face that I have so often noticed in Irving's photographs in the shop windows.' So I awoke in a miserable state of mind. It was between 5 and 6 a.m. The servants came down soon after. The dream seemed to haunt me; I

could think of nothing else. When I met my eldest son, John, at breakfast, I asked at once where was Fred? (I must state here that Fred was the travelling partner of three brothers, and then in the north of England on a journey.) His brother, after hearing the dream, said, 'Oh, Fred is all right; he is in Manchester.' He saw how miserable this dream made me feel, and he promised at my request to 'wire' to me when he got to his counting house in case there was no letter from Fred, who was in the habit of writing to the firm daily. There was, however, a letter as usual, and when I received no telegram as arranged, I judged that dear Fred was all right. Still the dream was present to my mind, and I thought of it continually. I begged of his brother to tell him to come home. In a day or two I heard that he was at Leeds, and the next day after that, John, the eldest brother said, 'Fred says he is going to take a week's holiday in Scarborough', when I at once exclaimed, 'I wish he were at home; do write to him to come back; he has had holidays enough this year. I shall write to him myself.' John said, 'Oh, don't; let him enjoy himself.' On this day, before I got out of bed at the same hour between 5 and 6 a.m., a person seemed to pass the side of my bed, and said into my ear in an audible voice, 'You are not done with trouble yet.' I started up and awoke, and related the matter at breakfast while talking of Fred to John, and said, 'I think it was your father.' He said, 'Oh, nonsense, that is like the dream you bothered me about a few days ago.' This was on the 23rd. On the 24th John mentioned that he had a telegram from Fred to send on £10, that he was enjoying himself immensely, that the weather was glorious. I again wished he were at home, and John said, 'He will be here on Friday next.' In the morning on the 26th I went to the letter-box and found a telegram for John, which announced an accident to Fred. John, however, did not like to tell me, and hurried off to the office. I asked John the nature of the telegram, but he said 'Business'. On arriving at his office there was a telegram of a similar kind from the hotel proprietor at Scarborough. Poor Fred was dead at the time, as he only survived the accident three hours. John and I set off at once, and found all over, and next day it was proposed that we should visit the fatal spot. His companion in that unfortunate excursion accompanied us. He sat opposite to me in the carriage, and when I looked at him I *remembered* the dream of the 18th and recognized the stranger who had the agonized expression, and asked him at once if his name were 'Henry'. He said, 'Yes, my name is Henry,' when I told the dream. He then said, 'The most extraordinary part is, I am connected with the volunteers, and we have private theatricals, and I recite, and am always on those occasions introduced as Henry Irvin, jun.'

The account of the accident was recorded in the *York Herald* of 28th July, 1882, as follows: "Scarboro', Sad Death of a Gentleman Visitor.—An accident of a melancholy character, and which unfortunately has been attended with fatal results, occurred on Wednesday evening to a London gentleman named Frederick Schweizer, who for the past few days has been staying at the Grand Hotel. It appears that on the afternoon of that day the deceased, along with a casual acquaintance named Deverell, who is staying at the Castle Hotel, went for a ride on horseback along the beautiful Forge Valley rides. When near Ayton, the deceased was somewhat in

advance of his companion, and it is surmised that his steed shied at a white gate ; anyhow he was thrown onto the road, and the horse galloped away. His friend on getting up to him dismounted, and a passing carriage was utilised to convey him to his hotel. This was at six o'clock and three hours subsequently the deceased expired, it is supposed from concussion of the brain."

It will be seen that the dream occurred on the 18th July and the fatal accident on the 26th, eight days later. During all this time Mrs Schweizer was in a miserable state of anxiety about her son Fred and urged her other son, John, to induce him to come home. On the 23rd she had the second dream or impression of a presence and a voice, which she thought was that of her husband, warning her that her trouble was not over.

Edmund Gurney, in an interview with Mrs Schweizer, was favourably impressed with her as a witness and says that the dream " certainly made a very powerful impression on her ". In fact, like Mr Dudley Walker's, it was no ordinary dream. As she says : " The dream seemed to haunt me ; I could think of nothing else."

From the point of view of the nature of paranormal cognition, one very interesting feature of this dream is that it was so unlike the event to which it corresponded. The scene of the dream-event was fictional, the high cliff, the open sea in front, her son, Fred, slipping down the side of the cliff—none of this occurred. Yet its correspondence with the real event is undoubted, partly because of the double warning and of the anxiety which lasted till Fred's death occurred, and partly because of the " Henry Irvin " incident. This shows beyond all doubt that the drama on the cliff was a dramatic creation, in other words a mediating vehicle, and not any kind of direct perception of physical or conscious mental events. The motive for this radical departure from physical fact is obscure. It suggests that a dream-like association of ideas may have taken a part in constructing the mediating vehicle. Fred was known to be at Scarborough, by the sea. This was normal knowledge. Paranormally, his impending death by accident was accessible in the subliminal. Perhaps the two kinds of knowledge got together and created a picture of the most likely kind of accident by the sea (especially if knowledge that there was a fall and concussion was included), namely a fall from the cliffs. Horses were excluded from the picture, perhaps because the presence of horses on the edge of a cliff would be incongruous. But the one thing that would connect this vague dramatic construct with the real event quite unmistakably was included, namely the face of Fred's companion (afterwards recognised by Mrs Schweizer in the carriage) and his acting name, Henry Irvin.

Not only does this case show very clearly the existence of a mediating vehicle : it also shows its " portmanteau " character. The paranormal knowledge of Fred's impending death was certainly the instigating motive and the dynamic force behind the experience. It set the mediating machinery to work ; but it was only one factor in its actual construction. Cases like this teach us not to regard precognition as a kind of time-travelling vision which goes into the future and takes a peep at physical events which have not yet happened. They teach us to look at it as a " something " deep in the subliminal region, probably beyond time and causality, and something therefore that we cannot grasp intellectually,

which makes it possible for mediating vehicles to be created which have reference to the future.

I shall not go on to quote other cases of precognition here, but shall pass on to another phenomenon which sheds light on paranormal cognition. Before doing so it will be well to summarise the conclusions to which the evidence so far cited points.

(1) There is no valid evidence for the existence of a faculty of "thought-transference" in which thoughts or ideas pass from one *conscious* mind to another. The evidence points to a sharing by subliminal selves of a very wide and general kind of knowledge which can be mediated to consciousness by means of various types of psychologically created vehicles—sensory, impulsive, emotional, verbal.

The faculty can be called "telepathy", but only in a sense greatly extended from that implied by the term "thought-transference".

(2) There is no valid evidence for the existence of a faculty of "clairvoyance" in the sense of a paranormal, perceptual faculty by means of which physical objects or events can be directly perceived. This hypothesis fails, on the whole, to explain both spontaneous and experimental evidence.

(3) There is valid evidence for the existence of a faculty of precognition. This rests on a large amount of spontaneous and experimental evidence, of which only one example has been cited above. Once precognition is granted, it is in itself a powerful argument against the existence of what have here been called "naïve telepathy" and "naïve clairvoyance", since both of these presuppose that paranormal cognition deals directly with events in the space-time world (assuming conscious thought to have a physical counterpart in the brain), while precognition points to the view that paranormal cognition takes place (or exists or has being of some sort) outside the space-time world, and is mediated into it by means of a secondary process.

These conclusions apply to the types of evidence we have so far been considering. The evidence of statistical methods of research will be considered presently, and the question of whether their results agree with the above, and, if not, why they differ, will be discussed.

*" PSYCHOMETRY "

Several things in the experimental field which would throw light on paranormal cognition have been left almost untouched. One of these is "psychometry". In psychometry, a material object plays an uncomprehended part in the production of paranormal cognition. Here, surely, is something to be followed up. What part does it play? What is the connection between paranormal knowledge and a piece of matter? Most of the sensitives who took part in the experimental work referred to above—"Jane", Anna Samuelsson, Alma Radberg, Agda Olson, Cecilia, and Fanny G.—were *verbally* directed to their objectives. But other sensitives have been directed to their objectives by holding or being otherwise associated with an object. Two cases of this kind were reported by Mr A. W. Dobbie, an Associate of the S.P.R. living in Adelaide. When he was in England, we are told that Mrs Sidgwick examined his note book.

23. Mr Dobbie practised hypnotism for ten or twelve years and found himself to be a very successful operator. He says that he hypnotised more than 500 persons, chiefly with a view to alleviating suffering, and found that a few of his patients were capable of clairvoyance (*Proc.* vii, 64). The sensitives employed in the following experiments were Eliza and Martha Dixon.

In cases of psychometry, the sensitive holds, or becomes otherwise associated with, an object which some person has previously touched, and is then able to give information concerning the past history of the object and of the person who has touched it. It is convenient to have a name for this person, and I shall call him the "contactor". It is unfortunate that the second of these cases, which contains a very significant feature, is less well evidenced than the first. But the way in which the lost pencil-case was found can scarcely be untrue. Witnesses of the first case were the Hon. Dr Campbell, M.L.C., the Hon. David Murray, M.L.C., and Chief Secretary of South Australia, Mr Lyall, and Mr Fleming, solicitor.

Dr Campbell handed Mr Dobbie a gold sleeve-link, whose fellow had been lost, and asked if a clairvoyant could find the missing one. Mr Dobbie says: "I should state that neither of the clairvoyants had ever seen either of the rooms they referred to, nor did they know the names of the children, or anything in connection with this case. . . ." The link was first handed to Martha Dixon who began by giving an accurate description of Dr Campbell's features (the contactor). She then spoke of a little fair-haired boy called "Neil" who had the link in his nursery and dropped it into a hole which had been torn in the breast of a toy elephant.

Then occurred an interval of two or three days, during which the missing link was found, but left untouched. At the next sitting Eliza and Martha joined hands, and Eliza immediately spoke as follows, this time in Dr Campbell's presence: "I am in a house, upstairs, I was in a bathroom, then I went into another room nearly opposite, there is a large mirror just inside the door on the left hand, there is a double sized dressing-table with drawers down each side of it, the sleeve-link is in the corner of the drawer nearest the door. When they found it they left it there. I know why they left it there, it was because they wanted to see if we would find it. I can see a nice easy chair there, it is an old one, I would like it when I am put to sleep because it is nice and low. The bed has curtains, they are a sort of brownish net and have a fringe of darker brown. The wall paper is of a light blue colour. There is a cane lounge there and a pretty Japanese screen behind it, the screen folds up. There is a portrait of an old gentleman over the mantelpiece, he is dead, I knew him when he was alive, his name is the same as the gentleman who acts as Governor when the Governor is absent from the Colony, I will tell you his name directly—it is the Rev. Mr Way. It was a little boy who put the sleeve-link in that drawer. He is very fair, his hair is almost white, he is a pretty little boy, he has blue eyes and about three years old. The link had been left on that table, the little boy was in the nursery, and he went into the bedroom after the gentleman had left. I can see who the gentleman is, it is Dr Campbell. Doesn't that little boy look a young Turk, the link is quite a handful for his little hand, he is running about with it very pleased; But he doesn't seem to know what to do with it. (A)

(Dr Campbell was not present from this point.)

“ Now I can hear someone calling up the stairs, a lady is calling two names, Colin is one and Neil is the other, the other boy is about five years old and is darker than the other. The eldest, Colin, is going downstairs now, he is gone into what looks like a dining-room, the lady says, ‘ Where is Neil?’ ‘ Upstairs, Ma.’ ‘ Go and tell him to come down at once.’ The little fair haired boy had put the link down ; but when he heard his brother coming up, he picked it up again. Colin says—‘ Neil, you are to come down at once.’ ‘ I won’t,’ says Neil. ‘ You’re a goose,’ replies Colin, and he turned and went down without Neil. What a young monkey! Now he is gone into the nursery and put the link into a large toy elephant, he put it through a hole in front which is broken. He has gone downstairs now, I suppose he thinks it is safe there. Now that gentleman has come into the room again and he wants that link ; he is looking all about for it, he thinks it might be knocked down : the lady is there, too, and they are both looking for it. The lady says—‘ Are you sure you put it there?’ The gentleman says, ‘ Yes.’

“ Now it seems like next day. The servant is turning the carpet up and looking all about for it, but, can’t find it. The gentleman is asking that young Turk if he has seen it, he knows that he is fond of pretty things. The little boy says, ‘ No.’ He seems to think it is fine fun to serve his father like that. Now it seems to be another day and the little boy is in the nursery again, he has taken the link out of the elephant, now he has dropped it into that drawer, that is all I have to tell you about it, I told you the rest before.”

18th July, 1886. “ Since writing the above pages I have handed them to Dr Campbell for perusal, so that he might check the account and ratify it or otherwise, and after going carefully through it, he has returned it to me accompanied by a complete ratification in writing, which I herewith enclose. A. W. Dobbie.”

Memo. by Dr Campbell.

“ Adelaide, 9th July, 1886.

“ At the point (A) the séance was discontinued till the next sitting when I was absent. The conversation reported as passing between the children is correct in every point. The portrait is that of the late Rev. James Way. The description of the children and their names are true. The fact that the link was discovered in the drawer, in the interval between one sitting and the final one, and that the link was left there pending the discovery of it by the clairvoyant is also correct, as this was my suggestion to Mrs Campbell when she showed it to me in the corner of the drawer. In fact, every circumstance reported is absolutely correct. I know, further, that neither of the clairvoyants has ever been inside of my door. My children are utterly unknown to them, either in appearance or by name. I may say also that they had no knowledge of my intention to place the link in their possession, or even of my presence at the séance, as they were both on each occasion in a mesmeric sleep when I arrived—Allan Campbell.”

In a later letter, dated 16th December, 1887, Dr Campbell writes :

“ Dear Mr Dobbie,—Your London correspondent asks if I had any knowledge of the conversation that the clairvoyant stated had passed between the children. I have no knowledge whatever of this conversation, nor the circumstances attending it, until she repeated it. It was subse-

quently confirmed to me in part by Mrs Campbell, such part as she herself is reported to have taken in the tableau. With respect to the large toy elephant, I certainly knew of its existence, but was not thinking of it at the time the clairvoyant was speaking. I did not know even by suspicion that the elephant was so mutilated as to have a large opening in its chest, and on coming home had to examine the toy to see whether the statement was correct. I need hardly say that it was absolutely correct.—I am, Yours sincerely, Allan Campbell.”

With regard to the difference between this method of experimenting on paranormal cognition and the commoner method of voluntary telepathy, in which the agent thinks of the thing to be transmitted to the percipient, the following remark of Mr Dobbie's is relevant. “ I have scores of times tried my level best to cause clairvoyants to see pictures and visions by conjuring up in my own mind the most vivid pictures imaginable, but up to the present moment I have never succeeded in making my clairvoyants think one thought or say or see anything I have tried to make them see in that way.”

I have quoted this rather lengthy case because it shows that the paranormal cognitive faculty is not like naïve telepathy or naïve clairvoyance. A good deal of the information lay within the knowledge of Dr Campbell. Some of it was unverifiable. The conversation between the children was not known to him, but some of it was verified by Mrs Campbell. The hole in the toy elephant was, at the time, only known to the child. The telepathic hypothesis therefore involves a kind of dipping into minds just as is convenient to piece together the entire episode. I suggest that the kind of telepathy which really exists (if it merits the name at all) is not a faculty which dips into this conscious mind and that and fits together the isolated pieces of information it finds, but that the knowledge exists in a wide and general form in the subliminal selves of those concerned, as was pointed out when dealing with Case 13. The scenes and the conversations which the percipient experienced were constructed to mediate this general knowledge to her consciousness:

Can this case be explained by naïve clairvoyance? The correct description of the details of the interior of a house unknown to the percipient may seem at first to suggest it. But the events described as if the percipient were witnessing them were in the *past*, not in the present, and this rules out naïve clairvoyance, as was pointed out on p. 82. The source of the knowledge is very obscure. We can, if we like, stretch either term, telepathy or clairvoyance, to cover it: but the faculty is quite unlike “thought-transference” and it is quite unlike sense-perception of physical events.

The really novel feature about this case, however, as compared to the cases we have previously considered, is that the faculty of the sensitive was directed by the sleeve-link which she held.

Another case with the same sensitive contains an extremely interesting feature. Unfortunately it was not so carefully noted at the time as was the above case; yet this interesting feature must surely have occurred. (*Proc.* vii, 68.) Mr. Dobbie says:

24. “ One evening, whilst I was busy with several of my clairvoyants, Mr Adamson, J.P. (one of the leading citizens of Adelaide), called, in

company with his daughter, and, handing me two or three trinkets which had been suspended to her watch chain, simply remarked, 'We have lost something. Will you kindly see if your clairvoyant can help us in the matter?' My clairvoyants all being asleep, I quietly placed the trinkets in the hand of the one called Miss E. Dixon without remark. In a moment or two she proceeded to give an accurate description of the young lady who owned the trinkets. I then said, 'Never mind the young lady, something is lost; try and find it.'

"In a few moments she commenced to describe a gold pencil-case which she saw 'lying on the road in one of the suburbs, not in the city, it is not there now, it is in a comfortable looking one-storey house with a garden and iron railings opposite.' She then described the gentleman who had possession of the pencil-case, whom she saw with his wife, and also quoted a remark he made, 'We will lay it aside and see if anyone claims it,' and stated that it was placed 'in a small box'. My clairvoyant seemed unable to give me the locality of this gentleman and his house; however, in reply to an advertisement next day or day after, a gentleman answering the description given by my clairvoyant brought the lost pencil-case to Mr Adamson, who, naturally enough, was so astounded at the correct description of a person none of us had ever seen or known, that he took the tram and visited the neighbourhood and house in which the gentleman resided, and to his astonishment he found that the description was exact, in fact, it was the only house in the neighbourhood having iron railings, also that there actually was a two-storey house opposite, which was also the only one in the neighbourhood. Mr Adamson, on questioning the gentleman, found that the pencil-case was found on the road as described; also that it has been placed in the small box and the remark made *re* waiting to 'see if it would be claimed' by the gentleman.

"To still further test the genuineness of the clairvoyance, I arranged (quite unknown to my clairvoyant, of course) to have the said gentleman present with about twelve other persons, who all entered the room after I had put my clairvoyant to sleep, and, on placing the trinkets and pencil-case in her hands again, she immediately found herself at the same house again and saw the same gentleman. I then instructed her to remember (my subjects never remember anything when they wake up unless I instruct them to do so) the features of this gentleman, so that if ever she should meet him in the future she would recognize him. I then woke her up, and to the astonishment and delight of all present, she at once voluntarily recognized the gentleman as the one she had seen when mesmerised. Of course you will see at once that the fact of the clairvoyant recognizing the gentleman is not of itself of much scientific value because the fact that I by this time knew the features of the gentleman makes it possible to bring that part of the experiment under the category of thought-transference, but taken in conjunction with the previous parts, I think the idea of thought-transference may be disarded. . . . A. W. Dobbie."

The following statement, Mr Dobbie tells us, was handed to him by Mr Adamson on 8th March, 1886: "Dear Sir . . . Passing your house one evening, in company with a daughter, who had lost a trinket off her watch-chain a week or so previous, and who lamented its loss, not on account of intrinsic value, but as an old keep-sake, I said to her: 'Come in and see

if Mr Dobbie can find it for you.' You had three clairvoyants asleep when we entered your room ; shortly afterwards you placed the trinkets in the hand of one of them, a female. Soon after which she began a fair description of my daughter ; this you stopped, informing her that something was lost which we wanted to find. She was silent for a minute or two, and then said : ' I think I see it now. It was in the dust and a man has found it.' The question was put : ' What is it ? ' She answered, ' A ring ; there is something on it ; it is not a key, Oh ! it's a pencil-case ; its bright and shining.' She was then asked to follow the man home. This caused a long silence. At length she said : ' I am there now ; he is showing it to a woman. I think it is his wife. He is putting it in a box and saying, ' We will leave it there and see what comes of it.' " She then said more than once, ' They would give it up if they knew who it belonged to, they do not want to keep it ; Oh, I wish I could take it away, they seem honest people.' She then, in answer to questions put, described the house in which the people lived, and the neighbourhood exactly, but could not give the locality, as she had never been there before—described the house as old and comfortable, like within a garden, a wrought-iron railing in front ; no church could be seen from the gate, but a large two-storey building opposite. She described the man accurately who had the pencil-case, and advised advertising for its recovery, as she was sure of its return if it was known who was the owner. A. Adamson."

The remarkable feature of this case is that the sensitive never had the gold pencil-case in her hand or anywhere near her until after it had been found. She only held the trinkets which had been suspended from the same ring as the pencil-case before it was lost. Whatever guiding influence the trinkets exerted in the matter of finding the pencil-case must, according to our way of thinking, have been exerted *backwards in time* through the moment when the trinkets and the pencil-case were last on the ring together. The trinkets had never been through the experience, which, so to speak, the pencil-case had ; they had never been in contact with the finder of the pencil-case and therefore could not *directly* link the sensitive with him. On the other hand, the pencil-case, which had been in contact with him, had not been seen or touched by the sensitive at the time when she described his finding it.

If the pencil-case was causally efficacious in directing the sensitive's faculty to the man who found it, the cause must here have been acting in a very peculiar way. It must have been acting backwards in time to the moment when the pencil-case and the trinkets were last together, and then forwards in time through the trinkets. Apparently, this would involve a causal sequence passing from the time of the finding of the pencil-case back through the moment when it and the trinkets were last on the ring together, and then forwards to the moment when the sensitive held the trinkets in her hand. This is quite different from the condition under which " psychometry " usually takes place. Usually, the sensitive is given an object to hold and then speaks of a person who has touched this object in the past. Notice that the first thing Eliza Dixon did in this case when given the trinkets to hold, was to describe Miss Adamson, their owner. It was only by a lucky chance that the case brought to light the fact that the influence of the object, whatever it is, can act *backwards as*

well as forwards in time. Note too, that verbal direction works here in the same way as it did with "Jane" and with Backman's subjects, only now it is superimposed on the influence of the object. Eliza Dixon first speaks of the owner of the trinkets. Then, being verbally directed to look for something which had been lost, she switches on to the guiding influence of the pencil-case and trinkets combined. Yet I do not think we can say it is a case of verbal direction only. To all appearance, the lost pencil-case really was effective, through its association with the trinkets, in bringing about its own discovery.

I shall now quote another case illustrating this retrograde temporal action of the psychometric object, and I would direct special attention to it. It is an experiment carried out by Dr Eugène Osty.

Before leaving the evidence of our own *Proceedings* and *Journal*, and turning to that of Osty, I must, however, say something about the legitimacy of doing so. The work done by Osty, and published in a summarised form in his book *La Connaissance Supra-Normale*, translated (not too well, it seems to me) under the title *Supernormal Faculties in Man*, throws much light on paranormal cognition. It is a misnomer to call this work an observation of "spontaneous" phenomena. It was, on the whole, experimental, although the phenomena were by no means under the complete control of the investigator. If they had been, the results would have lost nearly all their value. But undoubtedly Osty's work was of a preliminary nature. His somewhat rough and sketchy experiments could have been followed up more carefully and more according to plan. In fact, a careful study of them should have preceded any subsequent experimental work in paranormal cognition. Statistical workers made a great mistake, in my opinion, in breaking with the past and attempting to make a new start along novel lines. At any rate, they made a great mistake in regarding their new start as a main attack on the problems of paranormal cognition.

The above book of Osty's was rather unsympathetically reviewed by Dr F. C. S. Schiller in *Proc.* xxxiv, 333. Schiller complains that Osty has merely given condensations of his cases and that in no case has he published his full notes. It is not possible, of course, to include the full notes of cases in a book which is intended to be generally readable and of reasonable length, but he might, perhaps, have published the full notes of a sample case. In any case, it is a pity that Osty's executors should not have made his notes available to students of psychical research. Perhaps the war was responsible for this.

Osty himself regarded his work and his theoretical interpretation of it as tentative. Speaking of the latter, he says: "I put it forward for the sake of the fruitful work that it suggests. . . ." He recognizes, too, the gaps in his work. "I might have filled in these serious gaps," he says, "by continuing my solitary work. But the matter of this study is so extensive and of such high interest, that I have thought it better to publish at once the verifications hitherto made, and thus to indicate to other experimenters a main line and various branches of research, by which they may, without waste of time and effort, proceed to the exploration of the latent and transcendental zones of human thought." This was written in 1922. It is extraordinary that investigators should have turned away from

this promising lead, and, without studying its implications, have introduced a new and altogether different line of experimental research.

I shall in this paper regard Osty's work and the conclusions he comes to as valid guides.

25. A highly significant experiment is recorded in an article entitled *Prémonitions à Longues Échéance*, which appeared in the *Revue Métapsychique* for November and December, 1936, p. 470. The experiment took place in the rooms of the *Institut Métapsychique International* in the Avenue Niel, Paris, on 21st April, 1926.

At 2.30 p.m. on that day, M. Humblot, a Member of the French Senate, Mme Camille Flammarion, and Dr E. Osty were together in the Lecture Hall, in which were about 150 chairs. M. Humblot walked down the gangway and pointed out a chair at random, when asked by Dr Osty to do so. The latter then marked it by sticking a piece of gummed paper under it. M. P. Forthuny, the sensitive, was then summoned. The marked chair was pointed out to him, and he was left with Dr Osty's secretary and a stenographer, who were instructed to admit no one and to take down all that passed. Forthuny sat in the marked chair and felt it and the neighbouring chairs on each side with the object of trying to learn something about the persons who would sit in them at the coming meeting, to be held in about an hour's time. Never, we are told, had he spoken so fast as when describing his impressions. He had much to say about the future occupant of the chair he was sitting on. All he said was taken down in shorthand. Then, at 3.30, Forthuny went upstairs to Dr Osty's private room on the second floor and stayed there with him and Mme Flammarion, while all he had said was typed out by the secretary in the adjoining office.

At 3.30 p.m. about fifty people were waiting outside the lecture hall and on the first-floor landing, and when the doors were opened, they poured in. By 4 o'clock, about 200 people had arrived and found seats where they could. M. Humblot left the I.M.I. before Forthuny quitted the lecture hall. "The six persons who knew the selected chair remained until 4 p.m. without having any contact with the audience and took their places in the hall at their choice, according to the free chairs."

At 4 p.m. Dr Osty told the audience about the experiment, and indicated the marked chair, whose occupant was, not unnaturally, "quelque émue". The mark on the chair was verified. Then M Forthuny read aloud his remarks about the occupants of the chairs with which he had been in contact. Mme M., the occupant of the chair he had been sitting on, was a very intelligent young woman, having a practical mind (d'esprit positif), who was not content with "nearly", but anxious that the case should be rendered as accurate as possible.

Forthuny had the following to say about her :

(1) A statement about something which Mme M. said corresponded absolutely with the reality, but which she asked should not be made public.

(2) Your project of going away in the summer has been stopped, and will be again. Think no more of the east ; for the time it is over.

Mme M. had two projects for the summer holidays, a fortnight's motor tour, already abandoned, and another to the Vosges, also abandoned.

(3) "Before everything, take care of your graves. . . ."

Mme M. was not fond of visiting graves. Although her mother had died two years ago, she had only once visited her grave, eight days after the funeral.

(4) "Leon . . . is given to me : the chemist, I do not know why . . ." This meant nothing, and was the only erroneous statement.

(5) "Take care of your liver. . . ."

Mme M. was under treatment for liver trouble.

(6) "Don't wear that belt ; it has already hurt you. . . ."

Mme M. was wearing an elastic belt, which had hurt her skin.

(7) "What a disturbance! You have been almost thrown to the ground morally. You have been trampled on and dragged in the dust. You have done very well to get up by yourself. The capital letter M. . . . If you could recover all your poise, you could live your life without emotion. . . ."

Mme M. had a business partner, a woman M. R., who was unjustly jealous and had attacked her violently. She had morally thrown her down, trampled on her and rolled her on the ground. She had even threatened to kill her. At first Mme M. had thought of going away to escape, but in the end she reacted and defended herself, showing her enemy and others how unjust the indictments were. After having lost her poise, she had gradually recovered it, which enabled her better to re-establish calm all about her.

(8) "Pay attention to a return of the affection of your ears, throat and nose. Your neuralgia arises only from that. . . ."

Mme M. had suffered from neuralgia for a long time. A few days previously she had seen a nose, throat and ear specialist who had said that if these organs were put right, the neuralgia would disappear.

(9) "So much the worse for the one in prison, I mean a moral prison in which he is shut up. He will come out of it by himself from the knowledge that he is making others suffer. Then you will find all your freedom."

Because of the unjust attacks on his wife, the husband of Mme M. had retired completely into himself, only speaking when strictly necessary. This had put Mme M. into a state of painful constraint. Her husband said that his behaviour had been excessive, and he gradually came out of his voluntary, moral imprisonment. Mme M. gained in proportion freedom from her constrained attitude.

(10) "Do not complain that this title had been withdrawn. All that is only human vanity."

Mme M. was at that time interested because several clairvoyants had told her that she came of a titled family. Knowing that her mother was an abandoned child, she was intrigued by this and had made some inquiries to check the statements of the clairvoyants.

(11) "Beyond the equator, far across the seas, beyond the seas, a scent of vanilla. . . . Very astonished to see someone return from Brazil or from the Argentine . . . from South America in any case. . . . You were in close contact with that person. . . ."

Eight days before the meeting, Mme M. had been visited, without notice, by a very good friend of her family, who, after four years, had arrived from Brazil.

(12) "The threat of an operation will return. . . ."

Two months before the meeting, Mme M.'s doctor had said to her, "You will have to have an operation one day."

I do not think it is necessary to waste time over the suggestion that all these coincidences might be due to chance. For those who say that they can form no estimate of what may be due to chance unless they have a probability-figure to guide them, it would be possible to carry out a control experiment by getting someone to make twelve statements about the life of a person and then seeing how they applied to some person taken at random. Also the above is only a bald summary. Osty says: "A relire ici les indications métagnomiques, confrontées avec les événements qu'ils signalèrent, ils vont se rendre compte combien les mots exprimés par le métagnome contiennent plus de signification qu'ils semblaient en avoir."

Having confirmed Forthuny's statements, Mme M. was asked to describe how she got to the marked chair. Her account was given verbally and in writing and confirmed in part by her business partner, M. R. She said that both Dr Osty and M. Forthuny had been completely unknown to her, and that it was by reading a case in the *Revue Métapsychique* that M. Forthuny's sittings were disclosed to her and her business partner. On the day of the meeting, up to 12.30 p.m. she had no intention of going to it, and did not even know on which day the meeting was. M. R. (her partner) told her of it during lunch, and she decided to go to the I.M.I., cancelling for the purpose an appointment with her nose-and-throat specialist. About 2.30 she was seized with shortness of breath, a thing as a rule she never had, and it upset her. She told her colleague of this, who advised her to rest. About 3 o'clock, although she was busy, her attention was constantly attracted to the hands of the clock. She felt as if something was hurrying her to go. Nevertheless, her indisposition continued and made her wonder whether it would not be better to rest in her office. At 3 o'clock, however, she started out for the Avenue Niel, and her breathing trouble stopped at once. At 3.20 she arrived at the I.M.I., and found a crowd of people assembled at the closed door of the hall. She took her place in the crowd and at about 3.30 the doors were opened. Caught in the crowd, she brought up, having been carried along, jostled and encountering some difficulty, at a chair which she found within reach. As it was, someone else nearly sat in the chair before her. Reflecting on this fact, she thought how many incidents could have prevented the thing from happening. Her indisposition nearly kept her from coming. She was also expecting on that day important foreign clients, who actually arrived, but after her departure from her office. Had they arrived while she was still there, they would have prevented her from coming. The unexpected refusal of the business colleague to accompany her to the Avenue Niel nearly stopped her as well, since she disliked going about alone. Besides this, it was the jostling of the crowd which determined the chair she ultimately reached. And if her colleague had accompanied her they would have required two chairs, and that would have meant going to one of the back rows.

This experiment, it should be noted, would have been very difficult to "rig". If one thinks of what normal explanation would have been reasonably possible, it is very hard to find one. Mme M. declared that she did not know M. Forthuny before the experiment; but suppose that he

knew her, and that Mme M.'s account of how she came to the meeting and reached the chair was a tissue of falsehoods, still we have to admit that nothing could have been planned beforehand. The experiment was suddenly sprung on M. Forthuny soon after 2.30 p.m., when he was asked to come into the hall and sit on a particular chair. He remained there till 3.30 and then went straight upstairs to Dr Osty's private room, where he stayed in the company of Osty himself and Mme Flammarion until everyone was seated in the lecture hall. If the case is to be explained by fraud and collusion, it must be assumed that Forthuny, as he sat in the chair, decided to describe Mme M. whom he knew intimately. He would have to trust to luck that he would be able to get in touch with her in time and persuade her to come to the meeting and sit in that particular chair, whose position he must have memorised by number and row. To do this under constant supervision would have been difficult indeed. One would have to suppose that he managed somehow to slip away and telephone to her. Even then, the chances were that someone else would have sat in the chair before she got to it, as, indeed, nearly happened according to her account. To all this, Mme M.'s partner, M. R., must have been a confederate, for she corroborated part of the former's statement of how she went to the meeting. How could he persuade M. R.? He must have persuaded Mme M. to persuade her during the supposed telephone conversation.

Would a sane and reputable person, as M. Forthuny undoubtedly was, have risked his reputation on a chance so extremely unlikely to come off, even if we admit Mme M.'s willingness to be his confederate? The fact is that this case must be a sound piece of evidence, unless we regard the whole account as a piece of deliberate fiction, which, in view of our knowledge of Osty, would be unreasonable to the point of absurdity. Also, if the account had been untrue, the persons named in it would have protested.

Accepting the case, we have in it a parallel to the previous example, without the complication of the trinkets; that is to say, the cases would be parallel if Eliza Dixon had held the pencil-case before it was lost and told the story of its loss and recovery before it happened. In the marked-chair case, causality appears to have acted backwards in time from the moment when Mme M. sat on the chair to the earlier time when M. Forthuny sat on it. Mme M. was the contactor of a psychometric object, which was the chair. Usually, the contactor touches the object first and the sensitive touches it afterwards. Then the sensitive is able to give information about the contactor and about the previous history of the object. In this case the order of events was reversed, but *still* the sensitive was able to give information about the contactor. This is what makes the case so interesting. The difficulty about causality acting backwards in time, always present in cases of precognition, is present in a case like this in a more inescapable form; for in ordinary cases of precognition it is sometimes possible to argue that the information may have been due to subtle inference or the like, but here the causal efficacy of the object, whatever it may be, seems to be much more clearly exerted from future to present.

One other feature of the case is worthy of notice. At about 2.30 Mme M. was seized with a mysterious shortness of breath which cured itself at once when she started for the Avenue Niel. Also she had a feeling of

being hurried off: something kept urging her to look at the clock. All this sounds very much like telepathy from M. Forthuny. But if so, it must have been directed by the link, still in the future, of the moment when Mme M. would sit on the chair that M. Forthuny was then sitting on.

Osty had much experience of sensitives who worked with a psychometric object, and he summarises his conclusions about the function fulfilled by the object on pp. 131-2 of *Supernormal Faculties in Man*. The gist of these conclusions is as follows:

In the first place, the object fulfils the same function as bodily contact between sensitive and contactor, but does not have so powerful an effect.

(1) The essential thing is that the object should have been *touched* by the person in question.

(2) Duration of contact does not matter. The degree of success attained by the sensitive depends on the character of the contactor, although with one sensitive, Mme Morel, frequency of contact by the contactor did seem to improve the results.

(3) Each of the persons who has touched the object is perceived separately. One is not confused by the sensitive with another.

(4) If a person touches an object, his whole life is thereby thrown open to the sensitive. He may have touched it twenty years ago, yet his life *since* that date is perceived by the sensitive. Even events in his life which are still in the future at the moment when the sensitive touches the object can be foreseen.

(5) Persons who are connected with the contactor can also be perceived by the sensitive, though more rarely.

(6) As soon as the sensitive has begun to perceive the contactor, the object can be destroyed. The sensitive can still give information as if he were still touching the object, and about events after it was destroyed.

(7) The physical and chemical nature of the object appears to make no difference.

(8) Lapse of time since the contactor touched the object does not appear to lessen the efficacy.

(9) If objects are placed in contact with one another, this does not affect their efficacy: nor do objects placed in contact with one another appear to convey their efficacy for the sensitive to each other.

(10) An error made about a person during a sitting with bodily contact between sensitive and sitter will persist if an object is afterwards used instead.

The following conclusions seem to be justified:

(i) Bodily contact between a certain type of sensitive and a sitter facilitates paranormal cognition of the whole life of that sitter.

(ii) A psychometric object fulfils the same function as direct bodily contact, though less efficiently.

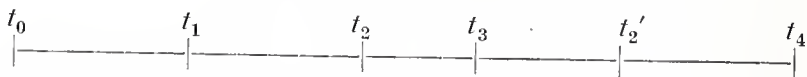
(iii) The object does not convey information which has been in some way engraved on it; it merely canalises the paranormal cognitive faculty into a given channel.

(iv) The psychometric object is a part cause in the result, since the object determines what *kind* of information the sensitive will give: also

some sensitives can do nothing without such an object. But this causality can act either from past to present or from future to present.

This last statement sounds rather preposterous. It is worth while showing Osty's conclusions and the results of cases 24 and 25 in the form of simple diagrams.

I. OSTY'S CONCLUSIONS



- t_0 is the moment at which the contactor was born.
 t_1 " " " " the contactor touches the object.
 t_2 " " " " the sensitive touches the object.
 t_3 " " " " the object is destroyed.
 t_2' " " " " the sensitive makes further veridical statements about the contactor after the object has been destroyed.
 t_4 " " " " the contactor dies.

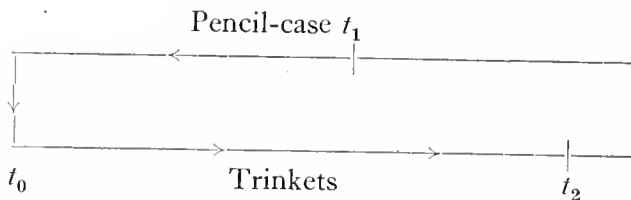
When the sensitive touches the object at t_2 the whole of the contactor's life is laid open to him throughout the period t_4-t_1 . It would be interesting to discover by experiment (since the fact of the contactor's touching the object at t_1 appears to be a crucial condition) whether the entire period, t_4-t_0 is laid open to the sensitive.

The view that events are in some normally causal way stamped on the material substance of the object could only apply to those occurring during the period t_2-t_0 , and would only seem to be plausible during the period t_1-t_0 if the contactor had had the object in his possession during that period and had worn it or constantly touched it. Events occurring during the period t_4-t_3 could not by any stretch of imagination be accounted for in that way.

All events perceived by the sensitive which occur during the period t_4-t_2 involve precognition.

The fact that events occurring during the period t_4-t_3 can be perceived by the sensitive suggests that the function of the object may be to establish a *rapport* which, once established, functions without further assistance from the object.

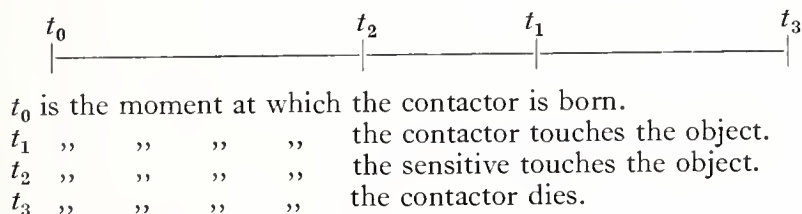
II. CASE 24



- t_0 is the moment at which trinkets and pencil-case are last together.
 t_1 is the moment at which the finder of the pencil-case makes contact with it.
 t_2 is the moment at which the sensitive makes contact with the trinkets.

These two contacts at t_1 and t_2 throw open to the sensitive the history of the pencil-case during the period t_2-t_0 . The causal efficacy of the objects would appear to have been exerted through the moment t_0 as shown by the arrows.

III. CASE 25.



Here the contactor touches the object *after* the sensitive touches it. The object therefore appears to act causally backwards in time during the period t_1-t_2 .

It is to be noted that if at t_2 the contactor knows what *will* happen to the object at a later moment t_1 , then when the moment t_1 arrives he will know what *is* happening to the object. This has an obvious bearing on the assumption that if a sensitive knows what is happening to an object when there is no normal means of knowing, this involves clairvoyance. The conclusion is not necessarily valid.

Incidentally, an often quoted case from Osty's *Supernormal Faculties in Man* (p. 104) in which Mme Morel traced an old man, Etienne Lerasle, by using his scarf as a psychometric object, does not need discarnate agency to explain it, as is sometimes alleged. The scarf was left at home by Lerasle when he wandered out and died, and his body could not be found. With the aid of the scarf, Mme Morel correctly described the place where his body lay. This is merely a case of knowledge by the sensitive of an event occurring in the interval t_2-t_1 , diagram I, of which there are many other instances. There is no reason to suppose that the fact that the event was the death of the contactor makes any difference.

I should now like to apply the central fact of paranormal cognition to these psychometric cases also—I mean the fact that there is a mediating vehicle. The scandal about all precognition is that it appears to involve temporally retrograde causality. Now, it does seem to me that it is a help to our minds, if we cannot abolish the scandal, at least to get it out of our own house. This, I venture to suggest, the mediating vehicle allows us partly to do. Let us say that when we make the statement that a case of paranormal cognition has "occurred", we have gone too far. All we know is that we have become consciously aware that it has occurred. No, even that is going too far. All we know is that we have become consciously aware of a mediating vehicle. That vehicle has been created for, or by, the sensitive, and the sensitive has become aware of it. This vehicle is the mediator of paranormal cognition. We know that the *vehicle* has occurred. We do not know enough to say that the *paranormal cognition itself* has occurred. We do not even know that the latter is the sort of thing that can occur. I do not think that we can even say that the paranormal knowledge of a future event is "acquired". Is paranormal knowledge, as it exists in its essence, even strictly "knowledge"? I

think it is very salutary to realize that we can scarcely make any assumptions at all about the paranormal faculty itself. All we know is that there is something beyond our sensible world which supplies *themes* for mediating vehicles (themselves normal psychological constructs), and that these themes correspond with themes which manifest themselves *in* the normal, physical world. These correspondences appear to be indifferent to the distinctions between present, past and future.

I suggest that when we say that a case of paranormal cognition has "occurred", this may not be strictly true. What has occurred is the mediating vehicle, which comes into existence in accordance with the normal laws of time and causality. A *theme* has been supplied to the constructor of this vehicle, which comes from a paranormal source where time and causality do not function in the normal way. This theme is often of a nature such that it could not have been supplied by normal sense-perception or by rational inference from it. How the information comes to be obtainable from the paranormal source we do not know; and I think that it would be going beyond our knowledge to say that an act of paranormal *perception* has occurred, or that any paranormal *process* has occurred. We are certainly going far beyond the evidence when we postulate a faculty of mind-reading, which taps conscious thoughts; and another faculty of clairvoyance, which perceives objects in the physical world. These ideas are suggested by experiments of the card-guessing order, which, taken alone, are delusive. The evidence shows clearly that paranormal cognition is not an extra sense, or a plurality of extra senses, which operate *in* the physical world. The faculty itself lies outside the physical world, as we know it; and that is why its disregard of causality is less of a scandal than it would be if it occurred *in* the world of causality and physical time. But I do not pretend that the scandal is banished. There still remains the question of how events in the physical world can be foretold. We still have to face the possibility that our whole idea of duration and becoming may be wrong.

Personally, I deprecate the habit of trying to describe the paranormal source by calling it a "universal reservoir of knowledge". Let us frankly admit that it is uncomprehended by us. It is perhaps incomprehensible.

"Psychometry", and those cases in which the faculty of the sensitive has been directed verbally instead of by the use of a physical object, may conveniently be classed together as "rapport phenomena". Rapport phenomena provide an alternative explanation of evidence which seems superficially to point to naïve telepathy and naïve clairvoyance. The evidence for rapport phenomena is still of a preliminary kind. It has been neglected by investigators, and it is urgently necessary that it should be actively pursued. In psychometry I would suggest that the function of the psychometric object may be to *influence the construction of the mediating vehicle*. It would seem that there must be more belonging to a physical object than appeals to the senses and more, even, than lies within the scope of physical research. At present we have no idea what this "more" consists of. But the subject has been greatly neglected and there is a wide field for experiment.

STATISTICAL EXPERIMENTS

Owing to the special character of statistical experiments, and to the tendency which has arisen to treat them in isolation from other evidence, it is necessary to deal with them separately. The use of the term "statistical experiment" was justified on p. 67 above. It forms a kind of research which has monopolised the attention of investigators in recent years. If it were true that we could rely on the results of statistical experiments *alone* as a safe guide for the interpretation of the phenomena presented by paranormal cognition, I should be inclined to agree that we might as well concentrate on this type of experiment and leave other evidence in abeyance until more progress had been made. But this is not the case. One small point first needs to be cleared up. "Experiment" is frequently used to mean "statistical experiment" only, other types of experiment being classed as "spontaneous". This use of the word "experiment" is confusing, and in this paper I have called *any* deliberate attempt to produce paranormal cognition an "experiment".

The plan of devising experiments to be completely under the investigator's control, which can be repeated at will, and in which the results can be dealt with mathematically is, of course, perfectly sound so long as these desiderata can be obtained without cramping the experiment to a point which renders its conclusions misleading. Even if the results of such experiments used in isolation are misleading where they concern the *nature* of paranormal cognition, they are not untrustworthy when they demonstrate its occurrence; and I urge that these experiments should be continued as repetitive proofs that paranormal cognition occurs.

In order to show clearly how statistical experiments, when used alone, tend to mislead, it will be necessary to deal with a salient example at considerable length. I will cite two articles published by Professor J. B. Rhine. One is the article entitled *Telepathy and Clairvoyance Reconsidered* in the *Journal of Parapsychology* for September, 1945; the other is the article entitled *Precognition Reconsidered*, published in the *Journal of Parapsychology* for December, 1945. An abstract of the former article was printed in *Proceedings*, S.P.R., Vol. xlviii, together with comments by Mr W. Whately Carington, Dr J. Hettinger, Dr R. H. Thouless, Mr G. N. M. Tyrrell, Prof. C. D. Broad and Mr Denys Parsons. In the Abstract at the head of this article, Prof. Rhine says: "E.S.P. is generally considered to consist of telepathy and clairvoyance, either of which may be precognitive. E.S.P. and precognition are regarded as established faculties. But it is submitted here that we have no clear proof that a truly telepathic form of E.S.P. ever occurs. It is even hard to design a sure test for telepathy. Precognitive clairvoyance can account for all the 'evidence' on record for telepathy." Again, at the end of the article, on p. 192, he says: "But the situation must be frankly faced: there is at the moment no adequately reliable case for telepathy."

These statements are quite unqualified and general, and there is no reason to suppose that Prof. Rhine intends them to apply to the evidence of statistical experiments alone. Indeed, there would be very little point in suggesting a hypothesis which was intended to apply to a part only of

the evidence, since it might be contradicted by the other part. That the statements are intended to apply to all the evidence generally is confirmed by a passage (the only one) in which Prof. Rhine refers to non-statistical evidence. On p. 180 he says: "In the light of the present reshuffle of values, there is a temptation to turn for evidence of telepathy to the reports of spontaneous parapsychical experiences—for example, instances of similar dreams. But this evidence could hardly be conclusive, since the experience is necessarily objectified in the telling and precognitive clairvoyance is probably a possibility in all such cases." But he does not attempt to justify this conclusion by examining either spontaneous or non-statistical experimental cases.

Let us examine Prof. Rhine's statement that "precognitive clairvoyance can account for all the 'evidence' on record for telepathy". At the same time we may examine the alleged evidence for clairvoyance without precognition; for on p. 177 of his article, *Telepathy and Clairvoyance Reconsidered*, he says: "... the experimental evidence of clairvoyance is better and more extensive by present standards and viewpoints than is that for telepathy."

To deal first with non-precognitive clairvoyance, can it explain the evidence for ostensible telepathy? We have already considered, in Case 13 above, an example of spontaneous, ostensible telepathy; and on pp. 79-80 we examined the view that it might be due to clairvoyance. The conclusion reached was that cases of spontaneous, ostensible telepathy cannot be explained by clairvoyance because there is nothing to guide the supposed clairvoyant faculty to the particular target. Telepathy would have to be invoked to direct the clairvoyant faculty. This has escaped Prof. Rhine's notice because he goes on the principle of refusing to take spontaneous evidence into account. Here, then, is one class of evidence which is ostensibly telepathic and cannot be explained by clairvoyance.

Can clairvoyance explain experimental, ostensible telepathy? Case 12, quoted above on pp. 74-75, was an extract from an example of experimental telepathy. How does Prof. Rhine suggest that it is to be explained by clairvoyance? There are two records, one made by the agent and the other by the percipient. Since the percipient must have arrived at the facts before he recorded them, he cannot have obtained his information by clairvoyantly reading his own record; for we are now considering non-precognitive clairvoyance. He must have clairvoyantly read the agent's record, then. Here we are faced with a difficulty. We are not sure that the agent's record was made before the percipient received his information. We are only told that agent and percipient sat at the same time. We will, however, suppose that the agent's record was made before the percipient received his impressions, and that the latter clairvoyantly read this record. But then we have to explain the fact that there is a good deal of veridical information in the percipient's record which was not in the agent's. The percipient cannot have read it in the agent's record because it was not there. What does Prof. Rhine suggest? We might suppose, perhaps, that the information about the house was in the agent's mind before the experiment and that she had objectified her thoughts by speaking about them then, and that the agent clairvoyantly heard the sound of her voice before

the experiment began. But this involves us in the difficulty that clairvoyance has to be provided with a delay-action, and we saw when discussing Case 16 (pp. 82-83) that this involves the abandonment of the hypothesis of clairvoyance as it is at present defined, that is to say of what we have called "naïve clairvoyance".

And there is another difficulty. If the percipient got his information by reading the agent's record clairvoyantly, why did not this supposed perceptual faculty bring the image or the sound of the actual words to the percipient's mind? Why did it transcribe what it found written down into different words? It is surely a curious thing for a faculty of perception to do. When we listen to a lecture, our auditory faculty does not paraphrase the lecturer's words and give us the sense in different verbal clothing. We should be very surprised if it did; and I doubt if we should call hearing a faculty of sense-perception.

Clairvoyance, then, cannot give a plausible explanation of even a simple example of experimental telepathy, in spite of the fact that in experimental telepathy the percipient knows where and when the experiment is being carried out, and might be supposed to have the power of directing his clairvoyant faculty to the target, which he cannot do in spontaneous cases. No doubt special cases might be found in which the clairvoyant explanation could be made to seem a little more plausible. But on the whole it is extremely unplausible, and we have to ask why Prof. Rhine is so certain about the power of clairvoyance to explain ostensible telepathy. Why is he so certain that there is any valid evidence for naïve clairvoyance at all? It is obviously because he is only thinking of card-guessing and similar experiments. There the explanation does seem plausible. A card has been shuffled into a pack so that no one knows where it is; yet the percipient correctly guesses it. What more natural than to suggest that he clairvoyantly perceives it? The pitfall has been set by the experimenter himself when he chose card-guessing as a suitable instance of the working of the paranormal cognitive faculty. He chose it because he could control card-events conveniently and because with them he could deal statistically with chance. But the fact is that the card-event has not enough qualitative content to show what is going on. There is no verbal record to indicate from where the information comes or does not come: it does not even show the fundamental fact that paranormal cognition is mediated to the percipient's consciousness by means of a constructed vehicle. (Mr Whately Carington's simple pictures were better than cards, counters or electric lights as events to study, because enough spontaneity and freedom was allowed to enable the mediating vehicle to show itself. Sometimes the percipient's drawing approached the *form* of the target-picture, and sometimes the *significance*. But unfortunately Mr Carington gave very little attention to this aspect of his experiments; and in any case the amount of freedom, though greater than in card-guessing experiments, was not great enough.)

Let us now consider precognitive clairvoyance, which Prof. Rhine says can account for all the "evidence" on record for telepathy. What does he mean by "precognitive clairvoyance"? Clairvoyance is defined as a faculty by means of which physical objects and events can be paranormally perceived. By precognitive clairvoyance it is presumably suggested that

physical objects and events can be paranormally perceived in the future. But clairvoyance, we have seen, is no longer clairvoyance if we have to assume that it works in the past. How can it be clairvoyance if it works in the future? We deny the definition we have given to clairvoyance if we make it either retrocognitive or precognitive.

But if we somehow muddle past this difficulty and admit for the sake of argument that there can be such a thing as precognitive clairvoyance, will it even then explain ostensible telepathy? Consider a case of spontaneous ostensible telepathy, such as Case 13 above or any other. The difficulty which rules out non-precognitive clairvoyance as an explanation also rules out precognitive clairvoyance. The percipient does not know that there is any particular target to which his alleged clairvoyant faculty should be directed and therefore cannot direct it to one physical object rather than to another. The fact that this time the target is in the future makes no difference. We may suppose if we like that the percipient is particularly interested in future records of paranormal experiments. But he is also interested in other future records, papers, books and objects of all kinds. It is not plausible to suggest that the clairvoyant faculty can pick out the right paper without some guidance ; and its owner has not the knowledge to guide it, unless we postulate telepathy. And if this faculty was nosing round among future physical objects, it would certainly light on many others besides the particular one in question, and we should have many instances of precognitive clairvoyance which had nothing to do with ostensible telepathy ; but these we do not get. Precognitive clairvoyance, even if we could plausibly postulate such a thing, is just as incapable of explaining spontaneous, ostensible telepathy as is non-precognitive clairvoyance.

Can it explain experimental cases of ostensible telepathy? Here the percipient knows that an experiment is in progress and might be supposed to direct his faculty to the right target. But let us look at a piece of concrete evidence. Any experiment would do which has a verbal record running to some length.

26. Here is a portion of the record of a book-test. The case is recorded in *Journal* xxvii, 60. The book-test was carried out with Mrs Leonard, the sitter was the Rev. W. S. Irving, and the recorder Mr Theodore Besterman. One item from the record will be sufficient. Mr Besterman's record reads as follows :

[Feda] [1] Dora says I have to ask you a question here because of that little problem of not being sure, not being sure, as to what is present or immediately past or immediately future. I want to know have you been doing anything with red books [book Th. B.] thinking of books [book, Th. B.] with rather particularly vivid shade of red on the cover or covers? You need not answer particularly (I don't know) but she had to tell you that. It was in the form of a question in case you remembered having seen one, after. Let him write it! [Repeated six times]. Wait a minute Dora! " Well," she says, " I have an impression of a red book. I see you looking at it."

We need not trouble about the result of the book-test as a whole. It was, in fact, an interesting and successful one. Nor need we trouble about the

question of whether a discarnate personality had anything to do with it. Nor, again, are we now concerned with the question of whether it may have been due to non-precognitive clairvoyance. Perhaps this latter explanation seems a little more plausible in cases of this kind than it does in cases of spontaneous and experimental telepathy. We are only concerned with the explanation of precognitive clairvoyance. According to this, Feda (or Mrs Leonard if preferred) read precognitively the verbal record which Mr Besterman was about to make and reproduced it by word of mouth. That is to say Feda read, clairvoyantly and precognitively, with complete verbal accuracy, and then pronounced, every word that Mr Besterman was about to write down at her dictation. Since the case is an experiment, there is no difficulty about the direction of the clairvoyant faculty. Feda (or Mrs Leonard) knew that a book-test was being tried, and would, it might be supposed, direct the precognitive clairvoyant faculty to the right target. The difficulty now is that the hypothesis obliges us to accept precognition which is absolutely accurate and word-perfect. There is a good deal of evidence for precognition, but none that I am aware of for precognition that is completely accurate. On the contrary, in every case of veridical precognition that I am acquainted with, the facts as given are inaccurate and incomplete. Feda's way of getting out her facts is particularly like that. She beats about the bush. One can see it here in her description of the red book. She describes the "Bell", the publisher's mark on the spine of the book, in a way which leaves no doubt about what she means; but it is the usual ragged and rather wandering description. But now Prof. Rhine asks us to believe that Feda suddenly abandons her habitual woolliness and reads a future document with rigid accuracy, word for word as it is going to be written. But what about the words in square brackets? On two occasions, Mr Irving thinks that Feda says "books", while Mr Besterman thinks she says "book", and inserts "book" with his initials in square brackets. Since Feda is assumed to have been reading the record with dead accuracy, we must suppose that when she came to the square brackets, she ceased reading verbally and chose one of the words to pronounce. Why did she do this? Why did she not go on reading and say: "Books, square brackets, book Th. B."?

Again, Feda pronounced the words, "Let him write it!" six times over. But that was not what she found in the text. She found in the text, "Let him write it, square brackets, repeated six times." Why did she not say it as written?

There is surely no need to insist that the hypothesis of a verbally accurate reading of a future record, which obligingly ignores insertions, and goes back to its usual woolliness and inaccuracy when the test is over, is fantastically absurd. Yet wherever there is a verbal record of an experiment, the precognitive-clairvoyant hypothesis presupposes this sudden verbal accuracy. Why is Prof. Rhine so confident that this absurd hypothesis can account for all the experimental evidence for ostensible telepathy? Clearly because he has waved all the evidence aside except that derived from statistical experiments. And why does the hypothesis appear plausible in the case of statistical experiments? Because card-guessing, or whatever other event has been chosen in order that it shall be amenable

to statistical treatment, is so restricted and devoid of content that it does not show the absurdity of the hypothesis. There is not enough qualitative content in a card-event to give a record which can be studied. All that can be derived from a probability-figure is a judgment as to whether or not chance can reasonably be held to account for the result. There is nothing to give any information about the *nature* of paranormal cognition. To speculate about the nature of paranormal cognition on the basis of statistical experiments alone is to make certain that you will be snared by delusive hypotheses. It is a pure illusion to suppose that statistical experiments are "safe" if used *alone* as an instrument of research into the nature of paranormal cognition. They are safe only as far as the probability-figure indicates that the number of successful guesses cannot reasonably be attributed to chance.

Thus naïve clairvoyance, whether assumed to be precognitive or not, cannot account for the evidence for telepathy, spontaneous or experimental. It has the delusive appearance of accounting for it in statistical experiments only.

I will now make another quotation from Prof. Rhine's article, *Telepathy and Clairvoyance Reconsidered*. On p. 181 he defines the requirements for a test of true clairvoyance thus: "The requirements for such a test", he says, "can be put very simply: If a subject significantly identifies cards extrasensorily when the order of the cards is never known *and no record of their order is taken*, then no opportunity is provided for precognitive telepathy, and the test is one of true clairvoyance." But how can we be sure that this proves clairvoyance? On p. 107 we saw that psychometry, or more generally that "rapport phenomena" provide a strong reason for distrusting this statement. If the sensitive has touched the cards at a moment t , or even, if we take the evidence as a whole, if his interest has been directed towards the cards, there is strong reason to suspect that he may know the situation that these cards will occupy at a future moment t' . When the moment t' arrives, no matter whether anyone else knows or ever will know their situation, he will be able to say where the cards now are. This will not involve clairvoyance; it will only involve previously established *rapport*. The two are by no means the same. The latter does not involve the paranormal perception of physical objects, which clairvoyance asserts, although its *modus operandi* may still be obscure.

It may be true that in card-guessing experiments the subject is not, as a rule, allowed to touch the cards beforehand (although in some of Prof. Rhine's matching experiments I believe that the subjects do handle one of the packs used). The psychometric object, the evidence suggests, is only one way of canalising the faculty in a given direction. Verbal direction often seems to have the same effect. Apparently anything which centres the subject's interest on the object will do.

Perhaps it may be argued that it is only a special type of sensitive who is open to these "rapport" effects. It does seem to be true that the most successful sensitives of this type are those who drop into a kind of light hypnosis; but in Prof. Rhine's experiments we have only to account for a few sporadic successes in a very slight kind of event, and it is quite plausible to suggest that his subjects had enough "rapport-faculty" in them to account for these. It is a defect of the statistical method of

research that very slight traces of paranormal cognition are magnified and given an appearance of undue importance. This is not a defect if one merely wishes to prove that paranormal cognition exists ; but it is a defect if one wishes to study its nature. I do not see that we can rule out " rapport " effects as a possible explanation of the evidence which Prof. Rhine confidently asserts to be proof of clairvoyance in card-guessing.

It is the same with the alleged evidence for clairvoyance derived from Prof. Rhine's experiments in psycho-kinesis. He argues that some of the strongest evidence for clairvoyance is to be found in dice-throwing experiments. He says that dice could not be made to fall in particular positions unless the subject were clairvoyantly aware of their positions as they were rolling. Prof. Broad (*Proc.* xlvi, 22-3) has pointed to the naïvety of this assumption. I can only endorse this, and ask Prof. Rhine, and those who treat evidence as he does, to come out of their statistical isolation for a moment and consider the marked-chair experiment (Case 25, p. 101 above), and then to ask themselves whether they are justified in thinking of paranormal cognition in terms of additional senses which work in the space-time world. The marked-chair experiment, and the other evidence I have quoted above, show that paranormal cognition is a totally different thing from what statistical workers have made up their minds that it is. Even if we had to assume that knowledge of the positions of the dice were necessary for psycho-kinesis, a slight previously established rapport between the subject and the dice might be sufficient to provide it without the necessity for clairvoyance.

I suggest that there is no clear evidence for what I have called " naïve clairvoyance ", that is to say for a paranormal sense by means of which physical objects and events can be directly perceived.

Again, in his article, *Precognition Reconsidered* (*Journal of Parapsychology*, December 1945), Prof. Rhine speaks of Pcg-T (precognitive telepathy), Pcg-C (precognitive clairvoyance) and Pcg-SP (precognitive sensory perception) as if these were separate faculties which could be reasonably supposed to exist. To make assumptions like this, without consulting the whole of the relevant evidence, is, I maintain, merely to get oneself fogged.

I do not wish it to be supposed that I am attacking Prof. Rhine or that I am attacking statistical experiments. I am protesting against a wholly unscientific way of dealing with evidence. If they are not to be misled and are not to bring psychical research into disrepute, investigators must cease to isolate themselves in one particular type of experiment and must deal with all the evidence impartially.

Prof. Broad, in the course of some remarks he makes on my comments on Prof. Rhine's article (*Proc.* xlvi, 25) says that he is puzzled to know whether I really think that there is any known alternative method of discovering the laws of phenomena beside that of experiment, when by " experiment " is understood the attempt to analyse and control conditions and to vary them one at a time. I certainly think that that is the best method of discovering the laws of phenomena where the method can be applied without obscuring the phenomena. I do not advocate the abandonment of experiment, but only the abandonment of a particular type of experiment which does obscure the phenomena. I do not even advocate

the abandonment of that, but only that it should be regarded as an auxiliary and be supplemented by other forms of experiment which do not obscure the phenomena. In psychical research the phenomena we wish to investigate have a spontaneity of their own, and it is only by allowing them to retain some degree of spontaneity that we can become acquainted with their nature. If we confine our attention to a type of paranormal event which excludes that spontaneity, we shall be misled as to the nature of paranormal phenomena.

Prof. Broad says: "There is obviously nothing in the experimental method as such which compels us to confine it to the investigation of feeble instances of paranormal phenomena. Our trouble is that we do not at present know how to produce at will strong and persistent instances." Strong and persistent instances all have too much qualitative content to be dealt with statistically; and to control them completely would be to eliminate their spontaneity. It is not the experimental method as such which has to be abandoned, but the particular type of experiment which obscures the nature of paranormal cognition. The experimental method needs to be adapted to the nature of the subject-matter. In statistical experiments the investigator is controlling the wrong things. He ought to be controlling the formation of the mediating vehicle. Actually he simplifies the event to such an extent, in order to control it, that the phenomenon he wishes to investigate has no chance to reveal itself.

On p. 21, in a paragraph entitled "Legitimate and illegitimate conclusions", Prof. Broad says: "Suppose that there is adequate evidence for paranormal cognition in cases where telepathy is excluded. And suppose that it should be found that, when experiments are done under conditions where clairvoyance is excluded, there is not evidence for paranormal cognition. Then the conclusions which could legitimately be drawn are the following: (i) In an experimental set-up of this nature, and with such subjects as have been used in the experiment, the presence of *clairvoyant* conditions is *both necessary and sufficient* to ensure a detectable amount of paranormal cognition." This is the first conclusion, which I am alone concerned with. It seems to me to be sound *only* if we confine ourselves to the results of statistical experiments. Suppose that there is evidence that paranormal cognition occurs when the conditions for clairvoyance are present and the conditions for telepathy absent. Can we be sure that pre-established rapport does not account for the results? In that case, the conditions for clairvoyance, though present, would be neither necessary nor sufficient to produce the result. What right have we to ignore the possibility of pre-established rapport? The only reason, so far as I can see, which could be given, is that evidence for it is not produced by the kind of experiment which some of us prefer. It may be that the evidence for psychometric rapport is not at present very strong. That is our fault for having neglected the subject. But that could not be given as a reason for refusing to examine and increase it. I maintain that it is not safe to draw conclusions about the nature of paranormal cognition from the results of statistical experiments alone.

SUMMARY OF CONCLUSIONS

The main points of this paper may be summarised as follows :

(1) Paranormal cognition is not a conscious *process*. Its *product* alone is revealed to consciousness.

(2) This product is here called a "mediating vehicle". It is subconsciously created by the percipient.

(3) The mediating vehicle is not a paranormal phenomenon but is the product of psychological machinery which all possess. It may take the form of a sensory hallucination or of an impulse or of automatic verbalization or of a dream.

(4) The same vehicle which mediates paranormal cognition also mediates subconscious expectations and beliefs or normally acquired knowledge which has not reached consciousness independently. In these latter cases, neither the vehicle nor the material is paranormal.

(5) Something which may be broadly called a subconscious *motive* underlies the formation of mediating vehicles in normal and paranormal cases alike.

(6) Telepathy does not consist in the transmission of the agent's conscious thought to the percipient. This supposed "thought-transference" is here called "naïve telepathy".¹

(7) The subliminal awareness, which forms the core of paranormal cognition in cases of apparent telepathy, is not an awareness of the details which appear in the mediating vehicle but is more nearly akin to awareness of a proposition.

(8) It was suggested that the evidence points to the view that paranormal cognition, in its essence, may not be an *occurrence*. It may be the mediating vehicle only which occurs.

(9) The evidence for "travelling clairvoyance" and "psychometry" shows that distant mental and physical events, unknown to the percipient, can be described by certain types of subject who (a) are verbally directed to the scene or (b) hold objects which have been touched by actors in the scene. These have been called jointly "rapport phenomena".

(10) There is evidence to show (a) that some sensitives can know future events which will happen to the psychometric objects they touch, and (b) that some can know future events which will happen to persons to whom their attention is verbally directed.

(11) Taken together, (a) and (b) in (10) suggest a possible alternative explanation for evidence which apparently points to clairvoyance.

(12) The hypothesis of clairvoyance, understood as the paranormal perception of physical events and objects (here called "naïve clairvoyance"), whether combined with precognition or not, cannot reasonably explain spontaneous, ostensible telepathy, because in spontaneous cases the subject has no knowledge of the event in question and cannot therefore direct the supposed clairvoyant faculty to the appropriate target.

With regard to experimental telepathy, non-precognitive clairvoyance is highly unpalatable as an explanation because the percipient often manifests veridical cognition of which there is no contemporary, physical

¹The agent's role is probably *directive* rather than *transmissive*.

counterpart. Precognitive clairvoyance is still more unplausible because it involves the hypothesis that precognition becomes, on occasion, suddenly completely word-perfect and accurate.

A further and general objection to naïve clairvoyance is that the physical object or event which forms its subject-matter is often not contemporary with the subject's experience. Naïve clairvoyance, then, has to be combined with retrocognition or precognition, and in either case ceases to be a faculty of sense-perception, which it is defined as being.

(13) Statistical experiments, which appear, if regarded in isolation, to point to the existence of naïve telepathy and naïve clairvoyance, are misleading because the events they employ are too restricted to reveal the true nature of paranormal cognition, and in particular the fact that it is mediated to consciousness.

(14) The attempt at present being made to carry out statistical research in isolation from every other kind of research is in the highest degree unscientific, misleading and dangerous. All evidence bearing on paranormal cognition should be treated impartially. Experiments should be planned and hypotheses formed in the light of *all* relevant evidence.

TWO QUESTIONS

My plea that it is useless to restrict research in paranormal cognition to less informative events, because these events enable us to exercise the particular kind of control we wish to exercise, and to deal statistically with chance, is likely to be met by two questions. I shall probably be asked: (1) Can we afford to relinquish our control of the experimental conditions, and (2) can we afford to dispense with the mathematical evaluation of chance?

The main answer to both questions is simple. We must do so if we wish to make any genuine progress in understanding paranormal cognition. With regard to the first question, we are not asked to relinquish all control of the conditions. If the right subject be employed, he is amenable to verbal direction and responsive to question and answer; and this provides sufficient control for practical purposes. With regard to the second objection, it is the qualitative poverty of the statistical type of event which renders the statistical evaluation of chance necessary. Given experimental results by a good subject, they are as a rule sufficiently rich in qualitative, veridical items to rule out chance as a reasonable hypothesis, unless the proposition be deliberately held that a great deal more can be put down to chance when it occurs in connection with the paranormal than can be put down to it in connection with any other subject. This proposition was dealt with in an address which I delivered to this Society in June, 1945.

Surely no one would insist on experimenting with events which give rise to misleading theoretical conclusions because they enable him to deal with chance statistically!

A SUGGESTED PROGRAMME FOR EXPERIMENT

(1) The first essential in research is that the evidence should be treated impartially. It is useless to confine our attention to a particular type of experiment, whose method appeals to us, and to ignore all phenomena which cannot be dealt with by its means.

(2) Research should not be broken up or isolated. Experiments should be planned in the light of past experience and should not start *de novo*. Every experiment should be framed to answer a particular question suggested by past evidence.

(3) The pioneer work in paranormal cognition referred to above (which is admittedly sketchy) should be vigorously followed up. It shows that what is actually observed is a vehicle constructed within the subject's personality to mediate paranormal knowledge to consciousness. The study of this vehicle should be the main task of investigators.

(4) Definite experiments are needed to confirm and carry further the pioneer work in "travelling clairvoyance" and "psychometry". The study of errors should be helpful here, and the investigator would find ch. v. in Part iv of Osty's *Supernormal Faculties in Man* instructive.

(5) Experiments should be devised to throw light on the indirectness and symbolism introduced into the mediation of paranormal cognition. These would probably establish the fact there is no such thing as naïve clairvoyance, or direct paranormal perception of the physical world. For example, a subject might be asked to describe the interior of a room unknown to him. Then a person might be introduced into the room who would carry on a conversation with himself in dialogue. It would then be seen whether the subject described the physical fact (one person talking to himself) or the suggested physical fact (two people having a conversation). Details of experiment, however, would soon suggest themselves.

(6) The whole question of "psychometry" as well as of "verbal rapport" needs to be experimentally investigated. Osty's conclusions on pp. 131-2 of *Supernormal Faculties of Man*, need to be verified. The "Gold Pencil-Case" and "Marked Chair" experiments (Cases 24 and 25 above), which indicate that a sensitive subject, by touching an object, can know its future history, should in particular be verified.

(7) The right type of sensitive for this experimental work appears to be one who easily enters a light state of hypnosis. Such sensitiveness should be sought diligently and selected with care.

(8) Experiments are needed to reveal as much as possible of the nature of the paranormal source behind the mediating vehicle. This will probably be difficult. I suggest that what is needed here is synthesis rather than analysis, and that information from various sources should be brought to converge on the problem. The paranormal source, as it reveals itself in mediumship, in automatic writing, in artistic inspiration, and in mystical experience should be studied, since the problem is to grasp the size of this source and to get it into something like a right perspective. Restricted laboratory experiments are of no use alone.

(9) Statistical experiments have their value, but as a method of inquiry into the nature of paranormal cognition, this is very limited. They can

detect small traces of paranormal cognition and can give innumerable demonstrations of its occurrence. Since this appears to make a great impression on the scientific mind, it is desirable to go on repeating these experiments and advertising them in scientific circles.

This paper may appear to some in the light of an attack on research. It is far from being that : it is intended to be a stimulus to research of a more constructive kind, while at the same time it is an endeavour to correct an unbalanced and unscientific method of dealing with evidence.

My thanks are due to Professor H. H. Price for kindly helping me to give clearer expression to certain philosophical points which arose in the course of this paper.

A NEW HYPOTHESIS CONCERNING TRANCE-COMMUNICATIONS

C. DRAYTON THOMAS

1. Previous evidence from trance not explicable by telepathy from the sitters.
2. The hypothesis now put forward is based on new evidence relating to direct-voice whispers in Mrs Leonard's sittings.
3. Examples of these whispers.
4. Evidence for the reality of a psychic emanation.
5. What Communicators say about this emanation, called by Feda "the power", and in the Piper records termed "light".
6. Evidence that Feda hears actual words spoken by Communicators.
7. The direct-voice whispers classified and illustrated.
8. Whisperings which are only partly heard; their special significance.
9. The foregoing observations supported by other sitters.
10. Variations in the direct-voice phenomena.
11. The whispers do not proceed from the medium's lips.
12. How the direct-voice whispers are produced.
13. Contributory support for the hypothesis—
Communicators claim to have bodies.
Feda sees them.
They are indicated as occupying definite places in the room.
14. Conclusion; The Psychic emanation. The non-material body.

PREVIOUS EVIDENCE FROM TRANCE WHICH IS NOT EXPLICABLE BY TELEPATHY FROM THE SITTERS

Much has been written about the mediumship of Mrs Osborne Leonard. The *Proceedings* of the Society for Psychical Research contain many articles on her sittings and, in addition to the evidence of identity which Communicators have given, record successive types of evidence which were apparently devised and carried through by the Communicators themselves and not first suggested by sitters.

Of these we find:

Book Tests. See S.P.R. *Proceedings* for April 1921, pp. 241-400, and S.P.R. *Journal* for December 1936, pp. 304-307.

Tests from the public press given previous to publication. See *Journal* for May 1921, pp. 89-107, and February 1925, pp. 18-23.

Proxy Sittings. See *Proceedings* for May 1933, pp. 139-185; *Proceedings* for December 1935, pp. 439-519.

And finally, Proxy sittings so arranged by an intermediary that the sitter had no contact with the persons desiring messages from deceased friends. See *Proceedings* for July 1939, pp. 257-306.

Study of the above shows that telepathy from sitters can no longer be held to explain the results obtained.

Other suggestions have been put forward in the endeavour to provide an alternative to the idea that purported Communicators are actually present at the sittings and giving the information which comes from the medium's lips. These suggestions include telepathic action of an almost unlimited character, whereby the information is supposed to be derived from any person, however unknown and distant, who might at any time have possessed the information; while other suggestions go to the extreme of positing universal consciousness, or unlimited community of mind, or a pooled memory of the human race from which the medium selects appropriate items!

The hypothesis we now put forward, together with an outline of the facts on which it is based, substitutes for these vague suggestions a claim for the accuracy of that which has been consistently stated by the Communicators; namely, that the messages are given by discarnate persons who come to the sitting for this purpose. It also supports the assertion of Communicators that they still have bodies—bodies of substance—although not formed of earthly matter.

These statements are stoutly supported by Feda, Mrs Leonard's Control, who, for the greater part of the sitting, voices through the medium's lips what Communicators wish to say.

Here I should remark that the question of Feda's personality does not come into this paper. Whether she is an individual entirely distinct from the medium, or combined with the medium, or only an aspect of the medium's mentality—none of these questions need detain us. Let it suffice that when the name appears in this article it indicates the "Control" who speaks through Mrs Leonard's lips. Not that the question is unimportant, but simply that it is irrelevant to the hypothesis about to be set forth. Personally I believe Feda to be a distinct individual, usually resident in the Beyond, but allotting some of her time to work on earth. In that aspect of her personality which one sees during her control I am more familiar with her character, idiosyncrasies and habits of thought than I am with those of the majority of my acquaintances on earth; but then I have listened to her at fairly frequent intervals during the last twenty-eight years!

THE HYPOTHESIS NOW OFFERED IS BASED ON NEW EVIDENCE RELATING TO DIRECT-VOICE WHISPERS

It may be convenient if the hypothesis is at once stated in brief outline, so that readers can appreciate more easily the links of evidence on which it is based.

It is as follows: the Communicator comes to the sitting in that body which is now normally his in the Etherial Realms. He takes up the position, some two or three feet in front of the medium, which Feda finds most convenient for her reception of the messages. He *speaks* his message in words during those periods of the sitting which favour this method of communication, while for other periods it seems more effective to give it by telepathy. The difference between these periods in a sitting is caused by variations in the output of an emanation which flows from the medium, with possible additions from sitter and note-taker. This emanation is

termed by Fedá "The Power"; it varies in density from moment to moment, and its gradual exhaustion brings progressive difficulty in communication and finally stops it altogether. During the sitting both medium and sitter are within this field of psychic energy, which, although but rarely luminous itself, yet renders visible to Fedá any object or person, incarnate or discarnate, who is also within its limited range. Hence Fedá's ability to describe the personal appearance of Communicators.

I have reserved until last that quality of the emanation or psychic energy which is most important for my hypothesis, namely that it carries to Fedá the *spoken words* which she hears more or less plainly, although the sitter usually hears nothing whatever save what comes from the medium's lips. I say "usually" because of the exception which will be described hereafter at some length. This is an occasional utterance of a word, or words, in a clear and distinct whisper, akin to what one is accustomed to hear from Communicators at Direct Voice (or "Trumpet") sittings with what are termed physical mediums.

How is it that, while the greater part of the message is unheard by the sitter, he is able to hear these occasional spoken whispers? I believe that the explanation will be found in the action of the before-mentioned emanation. This emanation seems to be a substance having relations with physical matter and also with the ethereal substance of the next stage of existence. It is sufficiently akin to the latter for use by the discarnate Communicator, and it is sufficiently akin to earth to affect the air of the séance room, not at all times, but when moved more violently than it is by the usual speaking of the Communicator. When the latter speaks with special vigour the vibrations of the emanation set up secondary vibrations in air, and it is these secondary vibrations which the sitter hears as a clear whisper.

EXAMPLES OF THE DIRECT-VOICE WHISPER

Before giving a more detailed analysis of these whispered words it may be well to offer some examples. I quote the few preceding words, then the Direct Voice whisper, and add Fedá's reaction to it.

Fedá : Part of it may happen earlier, but he feels—What? The fill—What?

D. V. : *Fulfilment.*

Fedá : The actual fulfilment of the prophecy, etc.

Fedá : That is when we usually av— av—

D. V. : *Avail*

Fedá : Avail ourselves of etc.

Fedá : Here there is an inner urge towards meeting opportunities more than half-way; possibly it is due to—What?

D. V. : *Awareness.*

Fedá : Awareness of the existence of all these opportunities.

Fedá : This touches on another aspect of our—Our what? Our work?

D. V. : *Our group work.*

Fedá : You cannot have sustained—

D. V. : *Communication.*

Feda : Communication with us, without, etc.

Feda : Sometimes we have a—

D. V. : *Company.*

Feda : a company present, etc.

Feda : (Following an explanation came the remark—)

D. V. : *You see, Charlie.*

Feda : You do see, Charlie, etc.

(A new line of thought was commenced with the words—)

D. V. : *Of course some individuals*

Feda : Of course some individuals obtain, etc.

Very frequently the D. V. speaks the one word, " Yes ", as in the following :

C. D. T. : I have already done that.

D. V. : *Yes.*

My Communicators rarely speak more than six or seven words in this direct voice at one time, but my friends, Mr and Mrs Conan Shaw, received the following unusually long sentences, the Communicator being an old Clergyman.

Sitters asked a question which was answered thus :

D. V. : *I thought it was my duty—custom, perhaps.*

Sitter : But there must be essence of good in it?

D. V. : *I should not have stuck to it if it had not been. It may be it is paving the way to a universal knowledge of God, beyond the outside brick walls or institutions.*

The unusual length of the above, coupled with the fact that Mr and Mrs Conan Shaw have had some initial success in their home sittings, where they seek to develop for the direct voice, suggest that they contribute to the circle of emanation much more than do other of Mrs Leonard's sitters.

EVIDENCE FOR THE REALITY OF A MEDIUMISTIC EMANATION

When the late Dr Osty was studying Rudi Schneider in Paris he became convinced that Rudi could, at times, produce something which, although invisible and intangible, obscured infra-red rays.

A group of investigators, wishing to verify this, invited Rudi to London for a series of experiments at the rooms of the Society for Psychical Research. Their findings are recorded in the *Proceedings* for June 1933, from which the following quotations are taken :

p. 274. On nearly every occasion many movements of the galvanometer coil were recorded. . . . These movements of the galvanometer coil, which confirm Osty's discovery, are very remarkable. . . . In addition, the bell in series with a selenium cell rang on two or three occasions, indicating an absorption of at least 50% of the infra-red radiation. Whatever it is that affects the galvanometer, or bell circuits, appears to emanate from Rudi, since the ray absorption sometimes synchronised with his breathing and sometimes took place immediately after he said it would.

p. 275. The many records of large movements definitely indicate a considerable variation of the current in the galvanometer which cannot be due to any disturbance other than the absorption of the infra-red radiation. In view of the distance of the medium from the apparatus and the fact that he was always under vigilant control, it would appear that this absorption is due to some agency at present unknown, emanating from Rudi himself.

p. 277. "Rudi-Olga", while controlled by Dr Fraser-Harris, was moving various objects, including the curtains of the cabinet. I then heard a loud bump, which sounded as if the table in front of the cabinet had been overturned. At the same instant the room was illuminated by the lamp which was the source of the infra-red beam. (It was afterwards discovered that the table had in fact been turned upside down, and in so doing had jerked a thread which was attached to the support block of the infra-red projector, causing the filter to fall off). After an interval which I find difficult to estimate—but I should say it was of the order of one second—I heard another crash almost immediately in front of me. I at once rose from my seat, and found Rudi quite limply on his side on the floor, and breathing very gently, slowly and regularly. After covering him with some dark material which I was given, I assisted in lifting him back to his chair. During the whole of this period he made no movement of any kind, and appeared to be completely unconscious.

This incident relating to Rudi's fall when exposed to sudden light bears out what has been recorded by many investigators about the shock effect of sudden light falling upon a medium in a dark sitting. It brings to mind an observation of my own which was due to an unusual accident. I had brought my friend, Dr Dyson, to a sitting for direct voice where we joined a circle of some ten other people. It was a summer evening and there had been some difficulty in blocking the glass panels of the door to exclude the evening light. The window was more easily blacked out, and the sitting proceeded for a time in the usual manner. The child Control spoke easily and frequently, not using the trumpet which served as a megaphone for the Communicators. The medium had on this occasion chosen me to sit next to her and to hold her left hand, while another sitter held the right hand. At one time we heard two voices speaking simultaneously. Many voices spoke to the various sitters. Presently I heard a voice speaking to Dr Dyson, who was sitting opposite me in a direct line with the door. My face was turned in this direction while I listened to his conversation with the voice. Suddenly a flood of light shone through the glass panels of the door where they were imperfectly covered by the drapery we had hung over them. A cleaner had come to sweep the passage and had switched on the lights for that purpose. This light enabled me to see part of the trumpet distinctly; it was suspended in air some five feet from the floor and pointing to Dr Dyson. Then it fell, and the voice of the Control came from low down and feebly, asking us to sing. After the singing it said, "We had better be going" and the sitting closed. The incident of most interest for our present consideration is, that, at the moment when light shone into the room, I felt the medium's hand give a sudden jerk, followed by a violent trembling which continued until the sitting's close. Only when the light was turned on did I release

the hand, and I noticed that she snatched out a handkerchief and applied it to her mouth. On withdrawal it was red with blood. Whatever it was which had been drawn from her would seem to have snapped sharply back to her mouth and throat, causing superficial damage to the tissues. Whether this something was a dense emanation, or what is termed ectoplasm, it was evidently something essential to the phenomena of levitation and of direct voice, whether the clear voice of the Control, or the loud whispers of Communicators. Its withdrawal left no power for even the Control to continue speaking.

A remark by my father, made eight years later, seems worth quoting here :

J. D. T. With those mediums whose output of power has to be of a sudden kind, a great and very sudden projection of the etheric body takes place, not a gradual one as it is with this medium. And whatever action took place at that moment which might be in the nature of an interruption, anything which interfered with the requisite conditions for the production of the phenomenon, might have very disastrous effect on the physical organism of the medium, owing to the sudden indrawing of the etheric into the aura again.

Evidence for the emanation comes from movements without contact. For illustration of this I might refer to the *Report by a Committee of the London Dialectical Society*. On p. 11 we find the description of movements obtained with an ordinary dining-table around which were a number of sitters maintaining a distance from the table of eighteen inches. On one occasion the eleven sitters saw this table move thirteen times, and this without contact, or possibility of contact, with anyone present. These movements were in different directions and some of them were made as requested by various members of the group.

Or reference might be made to Dr W. F. Crawford's experiments with the Goligher circle, as recorded in his books, *Experiments in Psychic Science*, and *Reality of Psychic Phenomena*. In both these he describes the levitation of a table *without contact*. The late Sir William Barrett, F.R.S., once visited the circle to watch Crawford's work, and he informed me that, on one occasion, he pressed forcefully upon the table in an endeavour to prevent its levitation, but in vain. He then sat upon the table, and it raised him several feet from the floor. Lady Barrett, who had been present at these experiments, told me that while Sir William was levitated with the table she was feeling with her umbrella underneath the table legs and satisfied herself that no cords or implements of any kind were being used. All was clear ; the umbrella met with no obstructions.

I was first personally impressed by the reality of an emanation when having a table sitting with Mrs Leonard. My wife and Mrs Leonard placed their hands lightly on the bamboo table while I took down the letters as they were spelled out by tilts. Then my wife and I exchanged places. Messages of an evidential character were thus produced: When Mrs Leonard suggested that my wife and I should sit at the table we did so, but no movements followed. Mrs Leonard then placed her fingers lightly upon the exact centre of the table, where it would have been difficult, or probably impossible, for her to move it by pressure. The result was immediate ; for the tilts commenced and continued until the

medium gradually withdrew her hand. As she did so, the table slowed down and quickly ceased all movement. Again the medium's hand was placed on it as before and again the movements continued. It was a clear demonstration that something essential to the table movement proceeded from Mrs Leonard and that neither my wife nor I could produce this mysterious something. When, some years later, an occasional word or two in the direct voice began to sound in my sittings, my attention was drawn to this mysterious something, and I proceeded to question both Control and my Communicators about it. Their replies may be summarised as follows :

WHAT COMMUNICATORS SAY ABOUT THE EMANATION

There is a ring of power around the medium which may extend a varying distance. It surrounds both Communicator and sitter.

It flows from the medium throughout the sitting, but fluctuates more or less and is exhausted towards the close, so bringing the sitting to an end.

It charges the atmosphere around the medium and sitter ; the medium produces it and the Communicator uses it. Its outer limit may be some few feet from the medium. (When I took my brother-in-law to a sitting, shortly after my sister's passing, she began to speak and then suddenly ceased. It was explained to me by the Control that, as my sister moved away to where her husband was sitting, she passed out of the circle of power. The Control could not then hear her words.)

Experienced Communicators can feel how near to the medium their best results are obtained. Often, in moments of excitement, they approach too close and Feda then urges them to go further away because, when too near, she gets a choking feeling and the medium begins to cough.

Communicators can rarely *see* the power ; but they *feel* its influence. On one occasion, when I was questioning my father about it, Feda said, " He keeps pacing backwards and forwards. What are you doing? He is doing it purposely, and says, It is something which I suspected and am now tracing. I cannot see where the power ends here, but I do feel a different sensation when I move out of it and when I move into it again. I feel a slight tingling, but very, very slight, as I come into it." My father has repeatedly mentioned that his mind is not so clear after entering the circle of power, yet only when within it can he transmit thought in *words*. The Power seems to have a slightly anaesthetising effect, not by any means a complete one, but sufficient to produce a slight numbing of his perception and memory.

My sister once said of her condition when within the circle of power : " It is a no-man's land between the two conditions, yours and ours. . . . It is supposed that communication concerns earth people and spirit people, whereas there is also the peculiar *bridgeway* which has to be used and which is neither one nor the other, but has some of the characteristics of each. Medium and sitter are, in part, working in a condition which is not entirely yours, and we work in one which is not entirely ours. It is a pooling of resources which creates the bridge."

J. D. T. : " Our vibrations are not operative by themselves on your plane. When we do something on your plane (which is not our plane),

we have to make use of that in you which corresponds most nearly to ours, but which is not ours."

Etta : " Sending words is more difficult than sending ideas ; for the power fluctuates like wind on windy days when you may hear a rush and it dies down again before gathering force and blowing up once more. So the power ebbs and flows. . . . Our trouble is that we cannot tell when it is ebbing, and so we waste time trying to get something on when it is ebbing, which could only be done when the power is full." She added, " I think power is weakest at the beginning and end of a sitting ; of course weaker at the end, but towards the middle of a sitting it is at its strongest." (This I have been able to confirm, as will be shown on a later page.)

Before commencing my sitting in November 1924 I asked Mrs Leonard if she knew what Fedra meant when speaking of " the power ". I found that Mrs Leonard was familiar with the term but had no theory about it. She noticed that she was less alert in mind immediately after a sitting and if taking her ball exercises then would miss the ball much more often than she would do before a sitting. In earlier days she had frequently given four sittings daily and could not suggest how the power was recovered between them, and supposed that Fedra brought them to an end before the power was expended.

Fedra presently remarked that my father had heard the conversation before the sitting began and he would give his opinion. Among other things he said the following :

I have vocal organs and *on my own plane my voice is heard*, but that of which larynx and tongue are formed is not the same as yours. The power, the mysterious power, helps just for a moment to clothe my larynx with material sufficiently like yours, a kind of counterfeit of yours, so that I may use it for communicating. But I do not use it at a distance from the medium, I have to come very close to do it. This projection of power can only travel a certain distance from the medium, so I have to come forward to catch it, as it were, or draw it. This cannot be done all the time. I never know when I shall catch sufficient from the medium to clothe or thicken my larynx with it. This power from the medium is a very individual part of her, and that is the reason why, in many instances, the voice may be tintured with a tone of the medium's voice or by some peculiarity of hers.

(Looking back it would seem that, at this early date of my inquiry into the nature of the power and the occasional manifestation of direct voice, my father was groping for the explanation and supposed that his direct voice whispers were caused by direct action on air owing to the partial materialisation of vocal organs.)

At another early sitting I asked my father if he could see " the power ". He replied that usually he did not see it and was only conscious of its presence, but that there were certain conditions in which it might be seen. He added, We feel, rather than see, the power.

My wife was with me at a sitting when we had a Communicator who, by various evidence, proved himself to be W. L. W., an old friend of my wife's family. He had been interested in science and had an alert mind.

Fedra (speaking for W. L. W.) : This is so interesting ; here I am in this wonderful condition and I can see you, not very clearly, but I see you are

there. Most extraordinary! You do not see me, do you? Yet it looks darker where you are and lighter where I am, so you should see me. It looks very misty, foggy, where you are.

What is that spark? (Feda interjects that there is no spark, and I remark that possibly he is alluding to the lamp.)

Yes, I see you in a circle. (I suggest that it may be the circle of power.)

Your father says that is what it is. Mr W. L. W. says, I do not know if you would call it that, or whether it is my circle of vision. I expect your father is right, but I want to find out for myself and think it out for myself. One thing that strikes me much is the absence of colour, not only as I see you now, but as I saw you when I came to observe you address a meeting recently. It seems so very dull and drab. There is more colour in the realm where I now live. . . . My new clear vision operates on my own plane, but apparently needs a great deal of adjustment to enable me to see clearly onto yours. . . . At this moment I see (here Feda interjects, "It is not smoke, but let him say what he calls it.")—I see smoke circling round your wife. Mr John says, That is the power, the etheric power, which is not very steady round Clara, and it looks to him to be moving about, wafting, and yet it is steadier around Feda. Your father says, that is not altogether due to a psychic cause, as Clara is sitting in a physical draught just sufficient to move the outer circle of the power; but it is interesting that W. L. W. should notice that the power is denser near the medium and also more luminous. It apparently has a self-luminous quality which I had not noticed.

Then, at the next sitting :

J. D. T. : Our friend last time was wrong in likening the power to smoke.

C. D. T. : I was surprised that he could see the power, as I had understood that it was usually invisible to you.

J. D. T. : It is not always visible. Indeed he might come a hundred times and not be able to perceive it in that way.

C. D. T. : Do you think he was mistaken about it?

J. D. T. : He was mistaken in likening it to smoke. He saw something, say a corner of the power, which was concentrated round Clara and which was being disturbed by a slight current of air which probably came from the window by which she sat. It was a circumstance which might not frequently happen.

At another time my father replied to a question as follows :

Take this sitting, for sake of concrete illustration. When I arrived here today I came travelling through the atmosphere. On coming near, I look at the medium and at you, and see around you a circle looking like mist. (This would seem to have been one of the rare occasions when it was visible.) Now, I could stand outside this circle of mist and give messages telepathically, as is often done. But I prefer to pass inside this circle of mist, which is etheric power given off by you two. Then my communication commences. The dry atmosphere today enables Feda to hear my *voice-vibrations*. I do not put myself into any particular mental frame, but much depends on the conditions which I find awaiting me. The circle of power varies both in *quality* and *quantity*; if thick and heavy, communication is difficult and I try several times to get my ideas through ;

but when clear, it is like telephoning over a clear line. 'Today I use voice, but usually it is done telepathically and ideas are sent rather than words.'
25th April, 1924. *Etta controlling.*

With most people the power is so embedded in the physical that it never gets sufficiently near the surface to be used by itself.

C. D. T. : 'Then with this medium a certain amount is brought to the surface?'

Etta : Yes, and used by us until it is exhausted. One would then have to wait until a quantity welled to the surface again. . . . This psychic power is in the etheric part of the physical body, the ether separating the atoms. All have it, but development implies patient work to bring it to the surface.

• 14th November, 1924.

"The power is drawn from and through the etheric body of the medium."

20th February, 1925.

Communicators had often spoken of a psychic cord which united the soul with the sleeping body on occasions when the former journeyed away to some distance. At this sitting I was informed that the etheric cord, which maintained the connection between soul and body, was the same in substance as "the power".

6th March, 1925.

C. D. T. : Can you say how the medium's etheric body, her aura, and the power are related?

J. D. T. : There is a close relation, and development consists in regulating the relationship. The etheric body lies within the aura, the power lies in both. . . . When a medium begins to develop, the etheric body is able to detach itself and this enables the power to flow from it more easily.

At a sitting in March 1946 I asked for more information as I was engaged on this paper and wished to know whether my Communicators could confirm or enlarge upon what had been said several years ago.

It was stated that they were not always sure whether or not their words had been heard in the direct voice. In discussing the subject among themselves they had agreed in thinking that the direct voice was favoured when a speaker expressed himself quite naturally and without any effort to arrange his thoughts or to express them in a particular way, but was specially interested in the immediate topic. In short, something spoken forcefully, but without mental effort.

It struck me that this would include exclamations, contradictions, corrections, and supplying a word over which Fedra had stumbled.

My father then joined in, saying that he had listened to our conversation and agreed that the direct voice was most likely with "rather forceful people who expressed themselves in a strong, vital, forceful manner and so gave out energy". He thought that the apathetic and lethargic Communicator would be at a disadvantage with it.

I then asked my father if he could tell me in what way the Communicator's body differed from the etheric body of a sitter.

He replied, "I think there is a little difference; for while you are in a physical body some of the density or substance of your etheric body is

being absorbed by the physical body. Therefore the Communicator's body is the stronger, for there is nothing drawing on it, or "feeding" upon it.

He was certain that, during earthly life, the physical drew upon the etheric body in some way which he could not explain; also that there was a reverse process, since the etheric body in some way drew sustenance from the physical body.

In short, while essentially alike, the Communicator's body was stronger and more vital, while the etheric body of the sitter was in some degree dependent on its physical body.

Next I asked if the Communicator's body was identical in its substance with the power emanating from the medium. He replied that it was, but with the difference that the power was a part of the medium's etheric body which all the time was depending on and drawing from the physical body of the medium. This fact would explain why the physical organism of the medium determined in some degree the quality of the mediumship.

"When we say that the power is going, it may be that the etheric can no longer draw what it needs from the physical. The power is a difficult thing to define and we are trying from our side to understand it better. We realize that both the bodily condition of the medium and her state of mind have an effect on what we try to do in the sitting."

C. D. T. : Would it be correct to say that when you stand here in the circle of power your body is clearly defined and isolated, but surrounded by something etherically much the same as your body?

J. D. T. : Yes, yes, yes.

And I would add that this power comes from the medium now and again; one moment it seems rather stronger and at another more withdrawn. I do not know whether it is subject to the mental effort of Feda or the medium, but we are sometimes aware, whether from your remarks or perhaps from our own feelings also, that we have contacted this power directly, so making what you term the direct voice. In that case our communications, which have been inaudible to you, are clothed and made audible by contact with this power. It is as if something billows out occasionally. You might liken it to this; you may be humming a fragment of song and suddenly you burst forth and give out a volume of sound which would move the air at a greater distance from you. It is something that now and again is available at a greater distance from the medium. The same power, you understand, but available at a greater distance. That is what we think and I expect that, as we continue investigating, we shall be confirmed in that belief. We are not always sure what you have heard and what you have not heard.

We come here, of course, with the desire to speak to you and we wish you to know all we say. Hence our desire-thought and its effect on the power, attracts it to us all the time. I think there is something automatic about the process. Our desires and wishes are potent; we attract the power by our natural desire to speak to you.

The subject was briefly touched on in S.P.R. *Proc.* for July 1928, section *The Power or Mediumistic Emanation*, pp. 72-78; in reading which there is an error to be noted on p. 73, line 25, which should have run, "although *not* usually visible to Control or Communicator—".

SUGGESTIONS FROM THE PIPER RECORDS. A PROMISING
LINE OF RESEARCH

It is convenient in this paper to use the term "Power" since it is so named in Feda's quoted remarks, but I should prefer to call it a psychic emanation. A study of Mrs Sidgwick's article on the Piper sittings shows that the same thing is there termed "light". If readers study that article in S.P.R. *Proceedings* for December 1915, pp. 59 to 65 and Appendix pp. 341 to 395, they will find numerous references which agree in substance with what has been quoted above from Mrs Leonard's sittings.

It would seem that this, at present mysterious, substance calls for further research. It is tempting to suggest that it will eventually be found to play an important part in the processes of physical life, in the baffling regions of sensation and perception, and in all forms of psychic phenomena.

It may be a substance which links the material with the immaterial and facilitates their interaction. One may even conceive of it as consisting of many grades, some of which interact with matter while others more easily interact with the substance of the realms awaiting our habitation after departure from the earthly body.

Should these guesses be but partially correct we have in this psychic emanation a worthy object for determined and persistent investigation. Many less promising objects have richly rewarded the investigator, and it might well be that here is the key for which Psychology, Philosophy, Biology and Psychical Research have long sought vainly.

EVIDENCE THAT FEDA HEARS ACTUAL WORDS SPOKEN
BY COMMUNICATORS

In my earlier sittings I supposed that Feda received the thoughts of the Communicator telepathically. It has been necessary to modify this supposition. There is much to convince me that the best parts of a good sitting are independent of telepathy, as Feda is listening to messages given in spoken words which are audible to her.

What is the evidence for this?

1. *Feda's actions* : She always looks directly in front of the medium towards the place where she says the Communicator is. Her attitude is that of one listening intently ; often she bends forward as if to catch the words more distinctly, as when I ask a question and the medium bends forward in a listening attitude, Feda saying, " I'll ask him what he thinks about it."

2. *Feda's remarks* : She often asks for a word or sentence to be repeated, or expressed in a different way. She complains of long or difficult words. At times she seems not to understand what is being said although the meaning is quite clear to me. When unable to catch the correct sound of a proper name she will often give its first part according to its sound, although not according to its spelling ; as C for Sidney, " Buttons " for a name which should have been " Butters ", and " Ash " for " Nash ".

3. *My observations* : Long passages are given a few words at a time, exactly as if they were being repeated by one listening to a dictated message ; in fact, I have long ago named this type of reception " the

dictation method". In the best sittings this dictation method is used for all the most important parts of a discourse.

Feda frequently complains that she cannot hear and asks that it may be repeated: "What? What did you say? I've missed a word; perhaps he will say it again."

She puzzles over the pronunciation of an unfamiliar name exactly as one often does over the telephone.

Very impressive are the little dialogues between Feda and the Communicator. Feda will, at times, flatly contradict the Communicator and at other times the Communicator contradicts Feda!

Occasionally a Communicator uses a word which seems new to Feda; she will assert that there is no such word, and when I explain its meaning she will presently use it herself, often incorrectly!

A Communicator may correct Feda's pronunciation, as when objection was taken to Feda's way of saying *interesting*: "Don't say that. Say *interesting*!"

Frequently when Feda has mis-heard a word it is corrected by the Communicator.

Of one Communicator Feda remarked, "He is wonderfully persistent. He keeps on about a thing until it is cleared up, when others might have dropped it. But he will not leave it, or let it go; he keeps on till he makes me say what he means. He is clever at it and that makes a great deal of difference to me. Some are much less helpful." That final remark bears out what I have repeatedly noticed in proxy cases—that is to say, cases in which messages are given me by unknown persons to be passed on to their relatives. Some were capable, others were not, and some would not take the trouble to stop for clearing up a sentence which Feda failed to transmit at first attempt.

A rather dignified speaker had alluded to his sister coming next year for her spring sitting. Feda gave this as "her spring chicken". At this the speaker expressed displeasure saying, "*Not* spring chicken! I do not want you to mix up my words. I said 'spring sitting'. I had no idea of saying 'chicken'."

The interplay between Feda and a Communicator is quite lifelike. In the midst of one description the speaker interrupted and said, "Get it correctly; you are making it out other than I mean." He then repeated his description in a way which corrected in an important particular what Feda had at first said.

4. Here are some examples of passages in my notes which strongly suggest Feda's actual hearing of words, and which do not so readily lend themselves to the telepathic explanation.

Words misheard by Feda:

Feda: Week after week for fears—(long pause as if the misheard word caused a check in the flow and a faltering). Years. Week after week for years.

Feda: I see greatly—What did you call it? Something—I've missed something. I'm sorry. Well, he says, I see great differences.

Feda: We cannot as—as— We cannot, What? Oh, I can't get that word. Well, say it another way, Feda, he says.

On another occasion Fedá said "feel", afterwards correcting it to "field", which was the required word. An evident case of mishearing: as also when she said, "What did you say? Mind?—Remind"; the latter being the word desired by the Communicator.

During a talk by one well known to me in his earthly life, Fedá caused the medium to imitate his characteristic movements and ways of speaking. This may have been a careful, or an unconscious, imitation, but it was impressive.

5. *References to laughter.*

Fedá: He says that this will solve many problems... Is he making fun? He's laughing a little... problems of imports and exports.

Fedá: There will always be people who will prefer—He's laughing again, though he seems serious—to travel by usual means of transit, rather than by—etc.

C. D. T. made a humorous remark to Communicator.

Fedá: Oh, he *is* laughing!

Fedá: In the midst of being serious he could think of something funny and laugh about it; not being funny all the time. He could be quite serious and suddenly—Ha, ha, ha, ha! like that. I notice he does it now and again. (This was very characteristic of the Communicator, whom I had known intimately all my life.)

Intonation imitated, says Fedá.

Fedá: I have now got into a good habit of imitating the way their voices go up and down, up and down.

C. D. T.: That is most valuable.

Fedá: When they go up and down, up and down, I imitate them because it might have a meaning.

C. D. T.: It has. It helps out the meaning very much.

Fedá: But I can't do it unless I hear the voices. Sometimes they show me things and sometimes they give it in thought, and then I don't hear. (This is a clear statement of the three forms of transmission. It is in agreement with what I have noticed in my sittings.)

6. *Direct Voice incidents pointing to actual hearing by Fedá.*

Fedá: Abstinnence?

D. V.: *Abstinnence.*

Fedá: I'm getting that word abstinnence. I don't know what that means, but it means something or other special to him.

(What Communicator wished to say was evidently this: "It's like being put in charge of a Borstal institution"):

Fedá: It's like being put in charge of a department of boars. Pigs? Boars in an institution?

D. V.: *Borstal.*

Fedá: I'm not quite sure. It's something to do with boars.

Fedá: There was something neglected which should have been seen to. "Bolt," he says. Now he says to Fedá, "Go on, give it to him." He says, "Fastner, bolt." (This latter remark was given like an impulsive correc-

tion and urging. It was exactly in the Communicator's manner as distinctly remembered by me.)

Feda: Willy—What? Who's he? Willy somebody—I can't get his other name. Willy—somebody is compelling you. Wait a minute. I've mixed that up.

D. V.: *It is not that at all.*

Feda: Willy-nilly? Is that right? Willy-nilly you are being compelled, etc., etc.

Feda: Stuart thinks he will have more important work later, though he doesn't know quite what it is.

D. V.: *At present—*

Feda: Present? He doesn't know at present. What is it, then? "No," he said. I don't know what it is quite. "Full stop." Full stop? But at present I am helping with, etc., etc.

(How clearly this indicates speaker and listener. The latter had joined the first two words of a new sentence to the end of the previous. She is then pulled up by the speaker, who finally indicates his meaning by saying "Full stop" and proceeds to place the misused two words at the beginning of a fresh sentence.)

The following quotations are from my article entitled, "The *Modus Operandi* of Trance-Communication according to descriptions received through Mrs Osborne Leonard." S.P.R. *Proceedings*, July 1928.

p. 51. At the commencement of Mrs Leonard's trance it seems as if her individuality changes into that of another person, namely that of Feda the Control. Feda talks to me about my communicators who are said to be somewhere in front of the medium. Feda (as I must now term the medium) then begins to tell me what they say, and from time to time bends forward in the attitude of attentive listening. She often seems puzzled as to the communicator's meaning, and will question the invisible presence before completing the sentence.

p. 52. It is a noteworthy fact that for a period, rarely more than twenty minutes in any one sitting, Feda will speak as if she were receiving from dictation. I can often at these times catch a softly whispered sentence before hearing it repeated in the clear Feda voice. This dictation method always reaches a high degree of accuracy, and I realize that I am receiving, not merely the communicator's thoughts, but also the characteristic diction.

p. 59. "So many little identifications can be made when Feda can hear the tone of voice, with facial expressions, lip movement, etc. So at first we all try to speak in our accustomed way, so that little points of identification may be given. If Feda only got things impressionally she might miss many little points which help to convince you."

p. 61. "Your father says there are times when Feda cannot see him, but only hears him. He wants to point out that when Feda cannot see him but only hears him, she must have some way of locating him. Is it not, he asks, by a light or misty substance? Quite right, when Feda cannot see him Feda can see something like a light near the sitter or going away. Feda has had two or three sittings with a person before seeing the communicator, although getting the messages by feeling or hearing."

p. 62. Fedá : What? . . . Wait . . . Cannot hear you . . . It is a nuisance. I was hearing him very well just then, but there is a vibration of voices coming now which mixes it all up. Can you shut the window?

This break came in the midst of an interesting passage which flowed with ease and accuracy. I then noticed, for the first time, a sound of voices in conversation outside the room where we were sitting. Two persons were talking on the lawn outside. I asked them to speak more softly and closing the window returned to my place. Fedá then said : It does not matter while your father talks mentally, but when he speaks in voice it does matter. Although you cannot hear his voice, it sounds like a real voice to Fedá while in the medium.

(How clearly this distinguishes between the two methods of giving the messages!)

p. 69. " Fedá can hear part, and part not, is able to hear some of it today, but not all of it. . . . When he gives words and follows them up with an impression, then Fedá knows it is right."

Fedá : Do you know there are times when I really hear him, and yet only get muddled sounds, not properly formed sounds. He says it again and if it does not get clearer he has to show it or get it through in some other way.

From the above remarks one gathers that " the power " was often insufficient in quantity, or possibly unsuitable in quality, for the conveyance to Fedá of spoken words. Much more was it inadequate for production of the direct voice whisper. At the date of these sittings there had been comparatively little direct voice.

The full significance of this speaking in actual words will be discussed later after the direct-voice usages have been classified and illustrated.

Having alluded to my observing the medium's actions during a sitting it may be well to explain that there is plenty of light for this.

Whereas in a direct voice " trumpet " sitting the darkness is complete and every precaution taken to exclude rays of light, it is far otherwise with Mrs Leonard's sittings. It is true that she prefers to have the curtain drawn, as this makes it easier to enter the trance state ; but she is not fastidious about excluding such light as may come from the side of the curtain. Then, too, there is light from the lamp, which is merely covered by a red silk handkerchief. In winter, also, the electric stove gives some illumination. Within a few minutes of the commencement of a sitting one's eyes, growing accustomed to the reduced light, can see around the room, can watch the expression of the medium's face and every movement of her body.

THE DIRECT VOICE WHISPERS CLASSIFIED AND ILLUSTRATED

From the hundreds of instances in which the Direct Voice (or whisper) appears in records of recent years, I have selected many examples and classified them under appropriate headings, as follows :

The Direct Voice supplies the required word :

1. When Fedá hesitates.
2. When Fedá asks for it.

3. Without its being asked for.
4. In commencing a new topic.
5. It gives assent.
6. It expresses emphasis.
7. It addresses Feda.
8. It corrects Feda's mistakes.
9. It corrects Feda's pronunciation.
10. It corrects Feda's grammar
11. It contradicts Feda!
12. It exclaims, remonstrates or expostulates.
13. It may be unheard by Feda.
14. Mis-heard by Feda.
15. Only partly heard by Feda.

1. *D. V. supplies the required word when Feda hesitates.*

Feda : That is when we usually av— av—

D.V. : *Avail*

Feda : avail ourselves of, etc.

Feda : The conditions of my new life have impressed me more dr—
dr—

D. V. : *Dramatically*

Feda : Dramatically, he calls it, than they have people who, etc.

Feda : When I saw familiar things around me I said, " Thank God!
Thank God! All the familiar and comforting things are here. I will
live up to them, or I will live up to the benef—, benef— "

D. V. : *Beneficence which has given them to me.*

2. *D. V. supplies the required word when Feda asks for it.*

(This is its most frequent use.)

Feda : Part of it may happen earlier, but he feels—What? The fill—
What?

D. V. : *Fulfilment*

Feda : The actual fulfilment of the prophecy, etc.

Feda : It is not so much a matter of—What?

D. V. : *Technical knowledge*

Feda : of technical knowledge as, etc.

Feda : A great task lies before us of harmonising them as they—What?

D. V. : *Interpenetrate*

Feda : Interpenetrate each other. That's what he says, harmonising
them. What did you say, please? You harmonise what?

D. V. : *Notes*

Feda : Notes. Wait a minute. I know what you are going to say. I
got it once. You harmonise notes in music before you play a chord.

Feda : He says, for years, let us call it, some—Some what? Some
something he said—

D. V. : *Prejudices*

Feda : Some prejudices about it, etc.

Feda : It is helpful when it is—enforced? Is that right?

D. V. : *Reinforced*

Feda : When it is reinforced by constructive thought.

Feda (A new Communicator had difficulty in making Feda understand. She therefore appealed to my father to help her) : What did he say, Mr John?

D. V. : *Trying to tell you something*

Feda : Well, he's trying to tell me something all the time.

3. D. V. *supplies the required word without its being asked for.*

Feda : Can you remember talking to me about—

D. V. : *Italy*

Feda : Italy, she says.

Feda : You cannot have sustained—

D. V. : *Communication*

Feda : Communication with us without, etc.

Feda : You are not to regard it—

D. V. : *In that light.*

4, 5. D. V. *sometimes commences a new topic, or gives assent, saying " Yes ".*

6. D. V. *sometimes expresses emphasis.*

In illustration of this I quote from a record made by my friend, the Rev. A. F. Webling, at his sitting of 26th August, 1942. His son is giving what proved to be an accurate forecast of our victory at El Alamein, which came to pass two months afterwards.

Feda : Father, I've got a date in my mind. As I told you, I don't always know things about the future, especially about things affecting us personally. But in my mind recently a date keeps coming up. I ought to say, two dates next to each other, something about 28th and 29th October, something to do with the war, and I feel a turning-point of a very, very vital kind. Very outstanding. I seldom get anything like that. It is as if a little door opens and something pops out, almost as if it were thrown out, saying, " Take that." And this date comes, and my own mind has to interpret. And I interpret it as having a grave bearing on the war, which will prove to our advantage.

D. V. : *Father, I felt relief!*

Feda : I would like you to underline that.

7. *The D. V. addresses Feda.*

Feda : A new Communicator was characterised by Feda, who spoke appreciatively of his sincerity and quickness in adapting himself to the conditions of his new life, adding, " He was ready to do it."

D. V. : *Thank you.*

Feda : Thank you, he said.

C. D. T. : For your flattering remarks!

Feda : He says, I don't know that they were meant to be flattering, but I think I may read a certain amount of truth in them.

(Later in the same sitting Feda broke into the Communicator's discourse by citing another Communicator's way of expressing happiness), " He would do a little hornpipe dance."

D. V. : *I don't know what you mean!*

Feda : No, I didn't say you were doing hornpipes, but that person did.

“ Oh, did he do hornpipes? ” he said. Well, yes, of course he did. Anybody in their senses does.

D. V. : *I don't!*

Feda : You don't. Oh, he doesn't!

Feda had expressed in her own words what she considered the Communicator was intending by what he had transmitted to her in picture form.

D. V. : *Yes, put it that way.*

Feda : Yes, I have done. He says, “ Put it that way,” as if I just happened to get it as he would want to give it.

8. *D. V. corrects Feda's mistakes.* These instances are possibly of special significance as one may suppose that Feda would not thus correct herself.

Feda : At present it is clearer—

D. V. : *As clear*

Feda : It is as clear—

Feda : Was there a path would go to some water? Would there be a path to some water, do you know? She keeps saying, “ path-water ; path-water.” I don't see any water in the garden, but I get a feeling you could go out of the garden and there would be some special path to the garden—

D. V. : *To the water*

Feda : No, not to the garden, she says, but from the garden to the water ; as if it would be looked upon as a private path. (This was a highly important correction and saved an excellent piece of evidence, unknown to me at the time, from being a failure. It correctly described something no longer existing, but which I was able to verify from pictures in archaeological books more than a century old.)

Feda : It is a break away of what you might call a grossly physical life—

D. V. : *From*

Feda : From a grossly physical life.

Feda : You couldn't pretend to be something other than you were not.

D. V. : *Other than you were*

Feda : Than you were, he says.

Feda : Tell her that he is happy, that he can see nothing in this life that he would wish altered.

D. V. : *New life*

Feda : In the new life that he would wish altered.

Feda : I am told I make—

D. V. : *May make*

Feda : I may make little or no impression, but we shall see.

Feda : Is there someone, Jane?

D. V. : *Jennie*

Feda : Jennie, yes, that's right. He said it just as he was going. (The speaker was my brother-in-law, who had *always* alluded to his sister as Jennie. A fact which he would certainly remember.)

Feda : He talked to others about it, not just Mr John, but others, what he calls his temptibles.

D. V. : *Contemporaries*

Feda : temporaries—contemporaries, those of my own age and outlook. (In this case, as in some others, I am not sure that the mistaken pronunciation was not intentional, an instance of Feda's facetiousness or humour.)

9. *D. V. corrects Feda's pronunciation.*

Feda : Admiral idea, he says.

D. V. : *Admirable*

Feda : An admirable idea.

Feda : That absolves me.

D. V. : *Absolves*

Feda : All right, Mr John— Wait a minute—That absolves me.

Feda : It's just as if things become separate, like the spectrum, he calls it. (Then adding for herself—) A man once said Feda was a spectrum.

D. V. : *Spectre, not spectrum!*

Feda : He says, spectrum ; everything get divided.

Feda : Remembering what you have heard, however *flagmentary*—

D. V. : *Fragmentary*

Feda : Fragmentary. Fragmentary.

D. V. : *Fragmentary*

Feda : I've said that two or three times! It explains much to them, and it's an incentive to go further, say a book just read *cursingly*— No? Not *cursingly*?

D. V. : *Cursorily*

Feda : Cur-so-ri-ly ; that's right, cursorily.

Feda : When I realised my surroundings it was a great surprise, I must admit that. In spite of certain things I had read and heard, death struck me as taking me to some empty—What do you call it? Sone? Empty sone?

D. V. : *Zone*

Feda : Empty zone.

Feda : The philos-*lo*phical standpoint

D. V. : *Philosophical*

Feda : Philo-*lo*-sophical

D. V. : *Philo-sophical*

Feda : All right, I've said it—standpoint.

Feda : But I can't remember—

D. V. : *Cannot*

Feda : Cannot? Well, that's the same as can't. I cannot remember where you knew me.

10. *D. V. corrects Feda's grammar.*

Feda : The denser element number one will be very quickly overcome before denser element number two arrives. That's what he says.

D. V. : *Yes, that's just what I said.*

Feda : Connects with a circle with whom—

D. V. : *With which*

Feda : With which we are in touch.

Feda : We can incorporate the two.

D. V. : *Incorporate*

Feda : You did say incorporate. It sounded like incorporate. He said something else too, something also just before it. Never mind, I've lost it. I'm getting words now, so I lose them better.

D. V. : *Worse*

Feda : Oh! He says worse, not better.

11. *D. V. contradicts Feda.*

Feda : This gentleman is not quite used to fitting in with other people, and with what they wish him to do. If you suggest anything to him he doesn't jump at it. He waits to see if it was what *he* wants to do. He's just like that.

D. V. : *I am not!*

Feda : Yes, you are. He's a good, kind man, but it's just a habit. I feel he was an important person, that people thought a lot of and paid much attention to his words. He says they didn't always pay attention, but it would have been better if they had done so sometimes. . . . He is a funny gentleman!

D. V. : *Not funny*

Feda : Yes, you are.

Feda : This man's idiosyncrasy had become a fixed habit, his self-indulgence in a habit— You mean habit of thought?

D. V. : *I don't!*

Feda : You don't! Oh, well, never mind.

Feda : He's talking about the sinner that repenteth! I think the sinner that repenteth is an awful nuisance!

D. V. : *No, he isn't.*

Feda : Well, he sounds as if he is.

Feda : It must begin on the earth, as many myriads— You mean millions?

D. V. : *No, I don't.*

Feda : Isn't it funny!

D. V. : *No!*

Feda : He was always very serious.

D. V. : *Not always!*

Feda (Feda was describing a procession in church) : People were going up and down and round the aisles, saying " Yum-yum-yum ", like that.

D. V. : *They went round the church, but they did not say, " Yum, yum "!*

12. *D. V. exclaims, remonstrates or expostulates.*

During a Communicator's deeply serious discourse, Feda made a facetious allusion to my liking for jam puffs.

D. V. : *I don't see where they come in now!*

Feda: He says, Why they entered into this I don't know!

The name of Sir Oliver Lodge having been introduced, Fedá remarked, " You know he's the cleverest person ever lived "—

D. V. : *Not quite!*

Feda : Well, he nearly is anyhow. Mr John says, " Not quite ", like that, but Fedá thinks he is.

(It appears that Fedá was acquainted with the fact that Miriam, the stenographer, was keeping rabbits.)

Feda : Sometimes dull tasks are the breeding-ground of better things. Breeding? Yes, that's right—of better things—like Miriam's rabbits?

D. V. : *Rabbits? What's rabbits?*

Feda : Always breeding. Never mind. I was only telling him something.

Feda : I don't know what terms to use to convey to you the absorbing interest of this life. Everything that one tackles and overcomes opens out a vista of something else, even more interesting, that may be done. No stalemate here, he says. (Fedá seemed struck by the word " stalemate ", repeating the word " mate "; she then suggested it might mean an undesirable wife, and informed me she knew a gentleman who had one.) To this the Communicator replied—

D. V. : *I didn't mean that!*

Feda : You didn't mean that? Well, never mind. He wants to say, No deadlock, but always something open, something open again through that, and something opening again.

Feda : She remembers about him, you see, and like when it's—when a boy's been naughty and you wonder if he will be naughty again, do you see?

C. D. : *Nothing of the kind!*

Feda : Nothing of the kind? She says, Nothing of the kind ; she's not anticipating anything of the kind at all.

Feda : Your father says—

D. V. : *A few days out!*

Feda : A few days out? What, out of bed?

D. V. : *No, no, no, no!*

Feda : A few days out? Oh, I'll tell him. He was a few days out in his reckoning about the war.

Feda : It seems as if the papers in this bag may be important and he will want to impress her about some of them.

D. V. : *Wrong idea.*

Feda : I'm giving the wrong idea. Well, that's what he said.

Feda (trying to catch a required name) : There's a W connected with it. Wellington? Wellington? I'm saying it.

D. V. : *Not a bit like it!*

Feda : Not a bit like it, Stuart? Melton—I haven't got it right.

(Before this sitting I had shown Mrs Leonard a garden thermometer which I had recently bought. It is to this that Fedá alludes in the following.)

Feda : He says that the phenometer—phenomena—He's got a thermometer!

D. V. : *I was not talking about thermometers!*

Feda : Oh, he says, phenomena. Is that right? The phenomena referred to, etc.

Feda : Yes, Stuart says that's quite correct.

D. V. : *It's not what I meant, though!*

Feda : Through that very quality of recklessness and adventuresome—There isn't such a word, Mr Theo.

D. V. : *There is now!*

Feda : Oh, there is now. All right. There is now, and he says, etc.

Feda : But now Willy—Willy—What? Who's he? Willy somebody—I can't get his other name. Willy something is compelling you—Wait a minute—I've mixed that up.

C. D. T. : I understand, Feda. You need not stop.

D. V. : *It is not that at all!*

Feda : Willy-nilly? Is that right? Willy-nilly, you are being compelled.

Feda : He says you must have good working—What? Hippopotamuses?

D. V. : *Hypotheses*

Feda (more loudly) : Hippopotamuses.

D. V. : *Hypotheses—and don't shout!*

Feda : I'm not shouting. I'm only speaking plainly.

Feda : With his de- de- What? I never heard anyone use that word before—demise?

C. D. T. explains the meaning of the word.

Feda : It's a stupid, ugly word. Demise! Demise! Can't you say "passing over"?

D. V. : *No!*

Feda : No, he doesn't want to say passing over. Demise, well, anyhow, after his demise she has been very lonely.

(Shortly after this little passage of arms, Feda herself took occasion to introduce the word while transmitting for a different Communicator, much to the latter's disgust.) Thus—

Feda : He will just go out, stop living on the earth and just demise to his wife—

D. V. : *Don't say that!*

Feda : That's what she ought to say. Go to her, do you see? He will just—yes, just go to her, and he won't know anything about it, perhaps, when the time comes.

13. *The D. V. may be unheard by Feda.*

Feda : He keeps on saying, Why have I been such—What did he call it? Why have I been—

D. V. : *Chosen*

Feda : Say it again, please. Why have I been—

D. V. : *Chosen*

Feda : Chosen will do ; I've lost the word.

Feda : The whole tone of life will be on a more artistic—

D. V. : *Plane*.

Feda : What did you say? (I had heard this word clearly.) On a more artistic plane than has hitherto been possible.

Feda : For their own progress, their own—Their own what?

D. V. : *Unfoldment*. (Both the stenographer and I heard this word distinctly, but Feda apparently did not.)

Feda : Wait a minute. Their own what? Oh, unfoldment. Wait a minute. It's not quite right.

D. V. : *Unfoldment of their own powers*.

14. *The D. V. may be mis-heard by Feda.*

Feda : Man was—

D. V. : *Then more bucolic*.

Feda : More beautiful? No, something like beautiful, bu- something. Bu- Can you hear him?

C. D. T. : Yes, I heard him say "bucolic".

15. *The D. V. may be only partly heard by Feda.*

Feda : She says she has been many times to—Bic- Bic-

D. V. : *Bickley*.

Feda : I can't get that name ; it sounds like Bickley, but that isn't right, it can't be.

Sitter : I heard her say it, Feda, and it is right.

Feda : You thought of that man and you thought of him with—What?

D. V. : *Horror*. (Feda : H—, h—.) (CDT. : The word is horror.)

Feda : They have to give a certain amount of l— l—.

D. V. : *Latitude*. (Feda : A certain amount of what?)

D. V. : *Latitude*.

Feda : Latitude to other people.

WHISPERINGS WHICH ARE ONLY PARTLY HEARD BY THE SITTER :
THEIR SPECIAL SIGNIFICANCE

I have reserved until last a special class of D. V. whisper which seems of great significance. It is important evidence for the correctness of the hypothesis put forward in this paper.

Let the reader recall some evening in the country when, in windy weather, he listened to the sound of distant bells. A gust of wind brings the sound strongly for a moment ; then, as the wind falls, the sound dies away into silence, although the bells are ringing steadily all the time.

“ The sound upon the fitful gale
In solemn-wise did rise and fail ;
Like that wild harp whose magic tone
Is wakened by the wind alone.” (Scott.)

In like manner the sitter hears *part only* of some D. V. sentences, *part only* of some words ; the speaker is giving the whole, but a lull in the emanation prevents the whole being voiced in air and so carried to the

sitter's ear. Thus "the fitful gale" would seem an apt simile for the ebb and flow of psychic emanation which permits part of a word, or sentence, to be heard, yet fails to carry the remainder.

Here are examples of D. V. which are incomplete, the beginning or the ending having been inaudible to the sitter and to the stenographer.

Single words.

For the word "dogmatize" D. V. said "dog—".

For "Beethoven" the D. V. spoke the first syllable, "Beet—".

Feda: Wait a minute, please. Who's that? Who's J. K.? Have I got that right? Jakey? Jakey?

D. V.: *Jaki*. (Note the first part of this name only is sounded.)

Feda: JK? I don't know whether he was saying a name like Jakey.

C. D. T.: All right, Feda. You nearly got it. The actual name he tried for is Jakins. (An old friend of Communicator's with whom he had shared rooms in Harley Street for many years.)

Feda: It's such a funny name.

Towards the end of a long discourse the following words in D. V. were only partly voiced:

—member (for remember).

Polit— (for Political).

Pro— (for Progress).

1. *D. V. fails in vocalizing one word.*

Feda: You can go on and make better conditions.

D. V.: *Just at present*. (Omitted word is *but*.)

Feda: But just at present—

Feda: At almost the same time or within—

D. V.: *Certain*. (Omitted word is *a*.)

Feda: A certain period, etc.

Feda: The progress of humanity—

D. V.: *General*. (Omitted word is *in*.)

Feda: In general, etc.

Feda: Life at that time was full—

D. V.: *Colour*. (Omitted word is *of*.)

Feda: Full of colour.

Feda: They come back to play their—

D. V.: *Parts*. (Omitted word is *in*.)

Feda: Parts in—

D. V.: *Reforming*

Feda: reforming nations.

2. *D. V. fails to vocalize two words.*

Feda: He is inclined to drop into a kind of dream—

D. V.: *Trance state*. (Omitted words are *or even*.)

Feda: Or even trance state.

Feda: All those whom—

D. V.: *Known*. (Omitted words are *you have*.)

Feda: You have known and cared for—

Feda : He is very glad.

D. V. : *More will come of that.* (Omitted words, *He hopes.*)

Feda : He hopes more will come of that.

Feda : We look down—

D. V. : *Side.* (Omitted words, *from this.*)

Feda : From this side and we are, etc.

Feda (having ended a sentence is waiting for the next) :

D. V. : *Look round.* (Omitted words, *When I.*)

Feda : When I look round and see.

Feda : In two cases—

D. V. : *one of two cases.* (Omitted words, *in either.*)

Feda : In either one of two cases—

Feda (Feda waits for beginning of a new sentence).

D. V. : *Never abused it in any way.* (Omitted words, *You have.*)

Feda : You have never abused it in any way.

Feda : I was not going to do so.

D. V. : *Inquiry.* (Omitted words, *But on.*)

Feda : But on inquiry, etc.

Feda : Part of it may happen earlier, but he feels—he feels—What?
The fill—What?

D. V. : *Fulfilment.* (Omitted words, *the actual.*)

Feda : The actual fulfilment, etc.

Feda (Feda is waiting for the next sentence).

D. V. : *Follow it up.* (Omitted words, *if you.*)

Feda : If you follow it up, etc.

Feda : You had nothing but admiration—

D. V. : *American.* (Omitted words, *for the.*)

Feda : For the American who passed over.

Feda : To wish for good, even—

D. V. : *Slightest degree.* (Omitted words, *in the.*)

Feda : Even in the slightest degree, etc.

3. *D. V. fails to vocalize three words.*

Feda : We have difficulty in dealing with such people—

D. V. : *Glad.* (Omitted words, *and we are.*)

Feda : And we are glad of your help.

Feda : It seems most important.

D. V. : *Know about it.* (Omitted words, *You may not.*)

Feda : You may not know about it.

Feda : Others—

D. V. : *Whom in touch.* (Omitted words, *with . . . we are.*)

Feda : “It’s something awful dull anyhow,” remarks Feda, “but perhaps she thinks it won’t be too bad.”

D. V. : *Find it dull.* (Omitted words, *She will not.*)

Feda : She will not find it dull, he says.

Feda (Feda is waiting for the next sentence).

D. V. : *The ability.* (Omitted words, *Here we have.*)

Feda : Here we have the ability to know God's Will and our plans agree with it.

Feda : Sometimes that happens through strain—

D. V. : *Nervousness.* (Omitted words, *and sometimes through.*)

Feda : And sometimes through nervousness.

Feda : That will come later—

D. V. : *Told.* (Omitted words, *because I am.*)

Feda : Because I am told, etc.

Feda : This generation is not so willing as the generation in the last war to study and learn.

D. V. : *Distractions.* (Omitted words, *they have more.*)

Feda : They have more distractions now.

Feda : She is an interesting child, but also a disturbing child.

D. V. : *Noise.* (Omitted words, *and full of.*)

Feda : And full of noise, Etta says.

4. *D. V. fails to vocalize four words.*

Feda : Your father says you ought to know who it is—

D. V. : *Said.* (Omitted words, *from what I have.*)

Feda : From what I have said.

Feda : Those so-called important people.

D. V. : *Using that word a great deal.* (Omitted words, *You see I am.*)

Feda : You see I am using that word a great deal this morning.

Feda (Feda is waiting for the next sentence).

D. V. : *Meet him.* (Omitted words, *I am going to.*)

Feda : I am going to meet him soon.

5. *D. V. fails to vocalize five words.*

Feda : Endeavours in which we are not interested at the time, but which are essential, seem like a tunnel.

D. V. : *Star at the end.* (Omitted words, *But if we see a.*)

Feda : But if we see a star at the end, that is encouraging.

Feda : We see over a wider area ; we are at a rather different point, you see.

D. V. : *Man . . . aeroplane.* (Omitted words, *It's like the . . . in the.*)

Feda : It's like the man in the aeroplane who can see more than the man—

D. V. : *Field.*

Feda : More than the man in the field below.

THE SPECIAL SIGNIFICANCE OF THESE PARTLY-VOICED
WORDS AND PHRASES

It would seem from the above examples that the Communicator speaks in the ordinary way while giving his messages and discourse to Fedá. But though he speaks in the ordinary way, as we do, his body is far other than ours ; it is not composed of matter, but of something which we may term a physical substance, without venturing to affirm more about it.

Being non-material, it cannot affect material things, not even the air. Hence the Communicator's speaking, however audible to Fedá, is usually quite inaudible to the sitter.

What his speaking does is to cause vibrations *in the field of psychic emanation*, and it is these vibrations which bring to Fedá the auditory impression ; for her bodily form is of like substance with that of the Communicator, and therefore sensitive to the vibrations of the emanation.

But what cannot be done directly can be accomplished indirectly. The emanation, being a sort of go-between, linking the material world with the realm beyond reach of our five senses, can, when acting with sufficient force, cause vibrations in air. These secondary vibrations are heard as whispered words.

Were the emanation of suitable density, and moved with sufficient vigour by the speaker's vocal organs, we should hear his words as distinctly as if he were a mortal speaking in the room. And that is exactly what one does hear in the so-called Trumpet sittings : those sittings in the dark for the Direct Voice with physical voice mediums. I have studied that phenomenon with eleven different mediums, attending, in all, twenty-seven Direct Voice sittings. From this number I would wish to subtract about half, because they were unsatisfactory in that no good evidence was forthcoming, and in two of them I strongly suspected that the mediums were themselves whispering through the trumpet.

In the six best cases there were splendid manifestations of voice. I doubt if any adequate impression of it can be conveyed in description to those who have had no experience of it. One hears from the Control a clear, ringing voice in the darkness, speaking from the further end of the room ; then a loud whisper close in front which brings to your memory some event of long ago in which the speaker took part. Then the voice of the Control again breaks in and makes some announcement about the conditions of the circle before introducing another speaker. The whispering voice of a Communicator usually comes from close in front of the person addressed ; while the Control speaks from anywhere in the room, high up or low down, inside the circle of sitters or outside it, but never, I think, quite close to the medium.

Nor are all the voices alike ; they vary as would voices in any social gathering ; men's and women's, young and aged. Sometimes one will sing with full and cultured voice, male singing with a woman medium, or the whistling of tunes in masterly style. Foreign languages are spoken by some Communicators while in dialogue with a sitter who can speak in the same tongue. On the first occasion of hearing this I questioned the lady

sitter afterwards, asking if the talk had been evidential. She replied that the speaker was a Scandinavian whom she had known in her youth. Another told me that the unseen friend had talked in dialect pronunciation which no Englishman could imitate without detection. This was said by an Indian Prince ; and a similar personal testimony was given about a dialogue in Scotch.

In general, the medium's Control, or Controls, speak the loudest and with fullest voice, while the Communicators vary from hoarse whispers, not too distinct in small circles or with an indifferently gifted medium, to clear, full voice with the best mediums.

This is a most inadequate description of what I have myself heard, but it may suffice to indicate that there is good ground for asserting that the Direct Voice *does not proceed* from the lips of the medium and is *not* to be mistaken for ventriloquism.

If, then, Direct Voice in dark séances is produced at distance from the medium, there is nothing surprising in finding the same thing taking place in Mrs Leonard's sittings. The conviction that it there emanates from some distance in front of her is thus supported.

THE FOREGOING OBSERVATIONS SUPPORTED BY OTHER SITTERS

The evidence which has been adduced in support of my hypothesis would be strengthened if it were reproduced with a number of other sitters. Others have indeed given me their impressions, impressions which, so far as they go, entirely agree with my own findings. But we require stenographic records which show clearly what was spoken by the direct whisper and what preceded and followed it. This is, I fear, a demand which cannot be met by many.

Happily, there are two which have been brought to my notice. The first is from the late Robert Blatchford's book, *More Things in Heaven and Earth*, and the second is a paper written by Mrs Conan Shaw for my inspection when she heard that I was interested in the Direct Voice. Mr and Mrs Shaw have had some sittings with Mrs Leonard in recent years and were struck by this particular manifestation the more strongly as they were having home sittings in the hope of developing Direct Voice.

ROBERT BLATCHFORD

Robert Blatchford in his book, *More Things in Heaven and Earth*, writes of a sitting with Mrs Leonard on 23rd September, 1923, as follows :

"Away from the medium and away from me, my wife spoke directly to me. She said, in an eager, anxious tone, ' Bob, I'm here. I am with you, Bob.' Before I could recover my presence of mind Feda began to speak again and I lost the chance to reply. But it was my wife's voice I heard and she pronounced the word Bob as she always did when with us. I think it is suggestive that she spoke my name twice. I had always said that if I heard a medium utter my name in that way I should think the evidence important.

" When I related that incident in *The Sunday Chronicle* several readers suggested that I had imagined I heard the voice. . . . But my wife had

been dead nearly two years, and I had never imagined I heard her speak until I sat with Mrs Leonard (pp. 92-3).

“ It was on the 23rd of September, 1923, when my wife spoke to me. On the 1st of June, 1924, at my second sitting, I asked Feda if my wife really had spoken to me, or if I had imagined it. Feda said, She spoke to you. It is a thing that does not happen in hundreds of sittings with me. There was a lot of power. (p. 26.)

“ On the 19th of November, 1923, at a sitting of the Johannesburg circle, a message, purporting to come from my wife, was written automatically by Mrs Purchas. I quote the message in full as reported by Mr Purchas, and with it his note appended.

‘ Will you tell *Barb* that I am now very happy, as he is of my faith? Strange that it should have taken your South African Circle to tell my dear husband that I am alive. We are most grateful. No, I will not sign yet—can’t have everything at once.’

‘ Note.—I have underlined the word above because it was written exactly as transcribed here. Whether or not that was done to convey an inflexion known to you, but unknown to us, I cannot, of course, say.’

“ My wife always pronounced my name as spelt in the above message. But it was quite impossible for anyone in the circle to know that. How then did the word Bob come to be written Barb?

“ At the sitting with Mrs Leonard on the 23rd of September, 1923, when my wife spoke directly to me, she pronounced my name Barb, and she used the name twice, as if on purpose to convince me of her identity. ‘ Barb, I’m here. I am with you, Barb.’

“ Now one would suppose that Feda heard my wife speak to me. Yet, on the 1st of June, 1924, Feda repeatedly addressed me as ‘ Mr Bob ’. She had not picked up the inflexion. How then did the inflexion get into an automatic message given at a distance of 7,000 miles to a group of sitters not one of whom had ever heard my wife speak? ” (pp. 102-3.)

VARIATION IN THE DIRECT VOICE PHENOMENA

During Robert Blatchford’s sitting of 12th June, 1924 he asked Feda if his wife had really spoken to him. She said, “ It is a thing that does not happen in hundreds of sittings with me.” So it would seem that at this date the D. V. was at its early beginning in Mrs Leonard’s sittings. It was then rare and did not much attract my attention ; my notes merely record that I could often hear my father’s whispers, which Feda repeated aloud.

It is within the last dozen years that the amount of D. V. has so markedly increased. Its frequency varies from sitting to sitting. In one it may be heard only six times, speaking a total of from twelve to fifteen words in all ; at another sitting it may be heard as many as twenty-five times, speaking about sixty words. Calculation based on some thirty of the more recent occasions gives an average of eighteen times and twenty-six words.

I think this difference from sitting to sitting depends on the amount and quality of emanation given out by medium and sitter ; their physical and mental conditions vary according to circumstances. For instance, I am writing this on my return from a sitting which gave only nineteen

D. V. words, and several of these were whispered too faintly to be understood. This is most unusual, as one generally hears the whisper quite distinctly, with no doubt whatever as to the word or words. What was the reason for so poor a manifestation? I incline to attribute it to two causes; my own weariness and the heaviness of the atmosphere. My feelings on going to this sitting were of languor and sleepiness, increased no doubt by attendance during the night on a restless invalid. The day had been damp, mild and enervating, and during the sitting Feda asked me to reduce the heat of the electric stove, as the Communicator was complaining of heaviness in the atmosphere of the room—a most rare request! Hence I doubt if either Mrs Leonard or I could give out our usual psychic contribution.

In the majority of sittings the D. V. comes in patches. It will occur two, three or even four times on one page of my records, and not again for several following pages. At other times it appears on several successive pages, after which many blank pages follow before it occurs again.

What is the significance of this tendency of the D. V. to come in patches? I think it points to an unequal pouring forth of the emanation; when this comes freely there is more likelihood of the D. V. being produced. When it comes less freely the D. V. is difficult or even impossible.

Besides this, there is evidence that something in the early part of the sitting facilitates the D. V., and that towards the latter part this something fails to act. This would agree with a slowing down of the output of emanation as the sitting passes the half-way point. It is as if power were vigorously produced shortly after the sitting starts, and reaches one or more peaks, after which it fails, may be suddenly or gradually.

The figures given on an adjoining page (see sketch-plan showing wave peaks) bear out the statement of Communicators that the power varies in strength from moment to moment and is all the time being used up, so that towards the close of a sitting difficulties arise. They say that they can give more easily when the power is strong and often fail in doing what they attempt because the power has weakened.

The final minutes of most sittings are used by my Communicators for taking personal control of the medium, and they usually remark towards the end of their speaking that the power is failing and they must therefore stop. If I detain them longer by questions, an increasing slowness and faintness of speech becomes marked, and they seem to be struggling against difficulties of expression as well as of recollection. They may even refuse to continue, explaining that they might inadvertently say something silly, or quite other than intended.

We may therefore conclude that this mysterious power flows with intermittent or irregular force, that it gradually diminishes as the sitting proceeds, and that its exhaustion inevitably brings the sitting to an end.

It seemed desirable to ascertain by counting whether the instances of D. V. were evenly distributed throughout a sitting, or whether they tended to come more frequently at some one or more parts.

My sitting records are uniformly typed on pages of the same size, and that part in which Feda controls has an average of twenty-four pages. Counting the number of times the D. V. was heard, and also the total

number of words so spoken, I find that the first twelve pages of 50 records show 452 instances of D. V. which produced 951 words ; whereas in the final twelve pages the figures were 156 times and 292 words.

This reveals the existence of some cause which favours thrice as much D. V. in the first half of a sitting as in its latter half.

To discover more minutely where the incidence fell, I divided the twenty-four pages into four sets. The result was :

In pp.	1-6	the D. V.	came	292	times,	speaking	593	words.
„	7-12	„	„	160	„	„	358	„
„	13-18	„	„	106	„	„	199	„
„	19-24	„	„	50	„	„	93	„

This shows that something favouring production of the D. V. rapidly diminishes as the sitting proceeds towards its close.

Wishing to discover whether some Communicators had shown more ability than others to produce words in the D. V., I examined a large number of the more recent records. Naturally those who spoke more frequently and lengthily had most impressed me ; they had undoubtedly produced more D. V. than had the less frequent and less lengthy speakers ; but would their average of D. V. words per page be less or more? I could not guess.

Having obtained the average of D. V. words per page for seven chief Communicators I found them arranged in the following order :

E.C.	T.N.K.	Stuart	Father	Etta	McD.	Mother
2·8	1·8	1·5	1·5	1·3	1·1	1·0

But this result was inconclusive, since those who spoke most would more frequently have spoken during periods when the power was unfavourable. It seemed necessary to make another calculation, counting only those pages on which D.V. words were recorded, and omitting all those during which the power was presumably insufficient to produce D. V. Here is the result :

Stuart	T.N.K.	E.C.	Father	Mother	McD	Etta
2·7	2·3	2·2	1·9	1·8	1·6	1·2

It will be noticed that, by both methods, the same three Communicators come first, while another three come last. This seems to indicate a difference in ability to produce D. V.

Is there any significance in the fact that E. C., T. N. K. and Stuart show greater facility in producing D. V. than do others? This much is certain ; E. C. is the one who always speaks under the greatest emotional stress. Stuart was a practised lecturer and, when deeply interested, very emphatic, whether on the platform or in ordinary conversation. Why my cousin, T. N. K., should score so well is difficult to say. He was an easy talker ; but so were my mother and Etta! He was a medical specialist and therefore accustomed to give his opinion with authority, as also when on the Bench as a London J.P. But I incline to think that his marked success in producing the D. V. is more closely related to the subject matter of his communications. This he evidently considered to be of grave importance, and he may therefore have deemed that it merited more

emphatic announcement than commonplace matter would have done. Be this as it may, the figures show that the D. V. does not come by chance; the moods and mental characteristics of the speaker are decisive factors!

THESE DIRECT VOICE WHISPERS DO NOT PROCEED FROM THE MEDIUM'S LIPS

I am aware that a critic's first reaction to this paper will be to suggest to himself that I, and other of Mrs Leonard's sitters, have been misled in supposing that the D. V. comes from some point in space away from the medium; they will incline to think that, in fact, it came from her lips. I hasten to assure him that there is no question possible in the mind of those who have heard it often. The D. V. does *not* proceed from the medium's lips, neither is it possible to confuse it with any whisper which Fedra may make through those lips. I am always able, just before Fedra greets me, to hear her whispered mutterings in apparent conversation with the Communicator. I can catch a word here and there, "Yes, I'll tell him. Yes, Fedra mustn't forget," but the grammar and characteristic is always distinctly and unmistakably Fedra's own. Between this and the D. V. whisper of the Communicators there is wide difference.

Moreover, the latter comes from a different place. Fedra's whisper proceeds from Mrs Leonard's lips; the D. V. comes from a spot some 2 ft. to 3 ft. in front of the medium.

IMPLICATIONS OF D. V.

Hitherto it has always been possible for the critics to suggest that the *evidence of identity* offered by the Communicator was given telepathically, (a) coming from some mind or minds on earth which possessed the information, or (b) from a discarnate personality who was not necessarily in the séance room at the time, or (c) if in the room, not possessing any bodily form.

I think it will be difficult to maintain either of these suppositions in view of the evidence above given for an actual presence of the Communicator, and the necessity for assuming that he has a bodily form by means of which he speaks to Fedra and occasionally produces the D. V.

This conclusion brings with it a confirmation which supports the view usually arrived at by sitters who deem that they have been in actual conversation with departed friends. I know this conclusion seems too simple to be true, and that therefore critics have exercised their imagination to devise alternative explanations. These alternatives have never seemed satisfactory to me, and now, after my long experience with Mrs Leonard, and many other trance sensitives, they seem more than ever to be fancies based on guesses, without foundation in observed fact or experimental results.

HOW DIRECT VOICE WHISPERS ARE PRODUCED

The Direct Voice Whispers are caused by vibrations in air; these are secondary results due to primary vibrations of the emanation set up by the words which the Communicator speaks within it.

Let me here repeat the hypothesis. Communicators can no more produce a voice in air than they can move physical objects—direct and without some intermediary. But *there is an intermediary* which is sufficiently akin to the substance of the Beyond to be usable by discarnates, and sufficiently akin to our matter to affect it under certain conditions. These conditions are in operation when a Communicator makes use of it to levitate, say, a table in the séance room, or to speak at a trumpet-voice séance. At the latter one hears the clear and ringing voice of the well-practised Control and the rather more laboured voices, or (in the poorer sittings) whispers, of the Communicators. In the Leonard sittings the Communicators occasionally catch a denser wave of the emanation which produces such vibration in air as results in vocal sound, much like a weak trumpet sitting. I think the D. V. is also favoured by any special emphasis in a Communicator's speaking.

This secondary result is not difficult to understand. We know how the wind, which can make but little impression upon stone, can arouse such force in waves of the sea that solid stone breakwaters are smashed. The sea waves are intermediate between air and stone. Similarly, in these sittings the impalpable emanation can be set into such violent action by the Communicator's speech that it vibrates the air and so produces words.

Perhaps a better analogy is offered by electricity. The Induction Coil in its simplest form shows us how sound can be produced, by the action of an intermediary, from a current of electricity which, by itself, makes no sound. If wires connected with the poles of a torch battery are brought together and separated several times a succession of tiny sparks will be noticed. These are either soundless, or only audible to very keen ears. But if this slight current be passed through a coil of wire, which is surrounded by an insulated coil of very fine and very long wire, one gets an audible spark from the terminals of this secondary coil each time the current starts or is broken in the primary coil. In the Induction Coil there is a contact make-and-break attachment which permits a very rapid succession of sparks which crackle in the air. In using this we have (a) the primary electric current of the inner coil which produces no clearly audible sound; the make-and-break of this causes (b) an induced current in the outer coil, and the terminals of the latter, when brought close together, produce (c) a series of sparks which crackle loudly. Thus, by means of an intermediary, the soundless current (a), making use of the induced current (b), causes sounds in air (c).

This may serve to illustrate my idea of the way in which the soundless words of the Communicator, stir at times the intermediate circle of psychic emanation from the medium, which in its turn produces sufficient vibration in air to be heard as the direct voice whispers.

Another analogy is provided by electric traction. The make-and-break of electric current flowing round a magnet causes machinery to work by a succession of pulls. That electric current, *by itself*, is powerless to move wheels, but it produces a magnetic field by which the adjusted iron of the mechanism is pulled into motion. Thus we find electricity and magnetism, neither of which are perceptible to human senses, producing results in mechanical movement. This analogy seems particularly good, since

electricity alone would be powerless ; the magnetism, however, is somehow inseparable from it, and is the intermediary by which mechanical action can be produced.

Have we any further confirmation of the actual bodily presence of Communicators at the sittings? For such confirmation I recount a few of the statements made by Communicators, with indications that Fedra sees the speakers and that they occupy definite places in the room.

Contributory Support for the Hypothesis :

Communicators claim to have bodies.

It would seem that Fedra can see the Communicators.

Communicators are indicated as occupying definite places in the séance room.

COMMUNICATORS CLAIM TO HAVE BODIES

Fedra : He says, Now this body, this body in which one finds oneself after death—this body is indeed a body. It seems to be very much more a body, a material body, than I had supposed would be possible.

Fedra : Your mother's here. She's in front and looking so well. She says you will see her one day and she says you will be quite satisfied with her appearance and health and well-being. She thinks that was one of the very first satisfying things that she felt when she knew that she had got to the other side—to look at everyone, at your father and Etta and many others, and to see how extremely well they all looked, how bodily well. Then she says rapidly, " Do try to get people out of the idea that this life is a kind of vague thought-existence." She knows that many people have a vague fear at back of their minds that it is only a thought-body. She doesn't know what a thought-body means to them, but supposes it must be an imaginary body. " There is nothing imaginary about it, unless you would call your present body an imaginary one. It would be equally wrong to call ours an imaginary body. Our bodies are our own bodies, they belong to us."

Had my mother been versed in philosophical thought it is possible that she would have phrased the above distinction more clearly. As it is, her meaning is at least clear in the sense that to her, and to those around her, there is nothing dream-like about her body. To her it seems much as when on earth it felt firm to the touch and was visible to others. Also it remains so and does not appear and disappear like a mental picture. Their life is not like a dream in which one lives in a world of one's own, but like this world when we awake from sleep to share it and its experiences with other people.

The hypothesis around which this paper is written may help us to realize somewhat more clearly than before the nature of the other-world body. For we find that when a Communicator comes to the séance room his body can affect the air by producing audible words in it ; also that this is accomplished by a temporary use of that which emanates from the medium, and is itself akin to the other-world body, although still attached to the physical organism of the medium and, *to that extent*, in a somewhat different condition.

This difference of condition (in the psychic emanation, as compared with that of the other-world body), may be analogous to the different conditions of water. Water remains simply H₂O whether used to blow a steam whistle, or to float a ship, or when existing invisibly as dampness in the air.

In our work-a-day thinking we use images supplied by earthly experience and we speak of these in terms of our native tongue. The learned, when pressing into the unknown, formulate their conceptions in special terms, such as "fourth dimension"; but for ordinary people this is usually difficult to follow. Even to conceive of solid objects as expressing to our senses just one aspect of the intricate patterns of electric energy requires a mental effort for which the age-long ancestral struggle for protection, provender and progeny has but poorly equipped us.

Suffice it that we can realize that there are certain aspects of reality which we find it difficult to understand. Among these are the other-world body and the kindred mediumistic emanation, the two which chiefly concern us in this paper.

If we accept the statements of Communicators about their bodily form and its substantial reality we need no longer be puzzled as to how Feda is able to describe a speaker with such accuracy that, on reading the description, the relatives remark that it is more accurate than they themselves could have given. As many of these descriptions are of persons entirely unknown to me—people who came to give evidence for friends who had requested me to hold a proxy sitting for them—it is obvious that Feda is not reading my mind or obtaining a mental picture of the deceased from me. The explanation is simple when we visualize the Communicator standing before Feda and letting her describe him as she sees him there.

IT WOULD SEEM THAT FEDA CAN SEE THE COMMUNICATOR

Remarks by Feda, about to be quoted, imply that she can see Communicators and observe their actions. Such sight would seem to refer to her own personal organism; for the medium's eyes are fast closed throughout the sitting. But since Feda, while in control, is making use of the medium's organism, the latter's *sense of sight* might possibly be in action despite the fast-closed eyes. One does not know.

During the discourse of a Communicator who had been a tutor and a minister Feda several times remarked, "Oh, dear, he is going like that," and the medium's hands moved up and down.

Feda will mention that a Communicator is smiling, as in the following: "Casting one's bread upon the waters with a due—he is smiling—and necessary knowledge of the tides!"

Breaking off suddenly, Feda says, "What did you want? Oh, well, I'll just tell him you're here, but you mustn't interrupt. It's that other Mr John—the Mr Lamond."

Feda: May I say a little about the lady first? I see she's changed places with the boy.

Feda (alluding to my father who seemed to think that my sister was telling me more than was discreet): Oh, what's Mr John pulling faces for? Well, she's not saying too much, Mr John.

Feda will mention that someone is nodding the head, as in the following : " I think he's been near you at times lately. He says he has. He is nodding his head."

Feda : Your mother is nodding her head a little, like that ; she says it is quite true.

Feda : The ancestor is here. I thought he was here before, but just then he went like that to me. (Medium's hands make a signalling movement.)

Feda : Etta's just pulling Howard's sleeve ; " You mustn't go on too long! " and he looked down and said, " Quite! " so it was all right.

In the midst of Feda's transmission for an old friend there came a rather faint but very clear " Hallo! " in the D. V.

Feda : She says, You cannot see me? She is close to you.

C. D. T. asked where exactly the lady was standing. In reply I was told to hold out my hand, which the medium then guided.

Feda : Hold it there. She has hers pressing it. Perhaps you can feel it. (I was not able to feel anything.)

Feda : Elsie is here. I don't know if she has been there or not, I couldn't really quite see ; I didn't see her before. Is she coming in, Mrs John? All right. Elsie is being very polite to mother, letting her speak and drawing back again when she thought I was going to cut mother off. Elsie's waving her hand to go on, so it's all right. (A little later on) All right, Elsie. The others have drawn to one side a bit and I think Elsie can come in and speak now.

Feda : While she is talking I am getting a rather long name beginning with " R " and I feel I ought to give it you just here. It is a name with several letters. She is nodding her head, so I know I've got something that is right.

Feda (in the midst of a discourse when the Communicator was about to make a striking disclosure, Feda remarked) : " And then he comes close to you and says—"

While T. N. K. was speaking Feda twice remarked that his hand was going up and down as he talked. She suited the action to the words by moving the medium's arm, raising and lowering it several times in succession.

On another occasion, and with a different speaker, the medium's hand was raised, as if in warning, while Feda said, " I had to be awful careful because Etta kept saying, " Wait, wait, don't try to explain," because of what I thought it was. She kept on, " Don't explain. Wait! Wait! "

C. D. T. : Did she wave a monitory finger at you, holding up her hand like that?

Feda : Yes, like that.

Then we have the following kind of picture, in which the doings of the Communicators are described, together with their words.

Feda : Now Sir Oliver is standing up—and you know how polite he is. He's bowing to your mother, do you see? because he found that he had got a little in front of her. You see your mother was there—the medium's hand points). She generally comes here (hand points again), your father here and Etta there (hand points for each direction). And mother had moved back a bit and Sir Oliver didn't know that he was in front of her,

do you see? So he turned round and he went like that (medium bows) like he did when he went up to ask ladies to dance with him. Mother isn't going to dance with him. I don't think mother does dance. But that's what he's doing. Your mother says, "No, no, no; you go on." And he said "No," because your mother hadn't even been able to say Good morning. So mother says it now.

(All this was very lifelike, exactly as, say, an observer for the B.B.C. would describe what was taking place from moment to moment at some function.)

COMMUNICATORS ARE INDICATED AS OCCUPYING DEFINITE PLACES
IN THE SÉANCE ROOM

Feda: Stuart's over there, but father's here, near me. That's why he's talking.

Feda (breaking off in the midst of my father's talk): Oh! . . . What does she want? Do you remember Marion? She has just looked in. She is there (pointing).

Feda: Don't come so close, Fanny. Don't come quite so close. I don't like them to come close, because I don't breathe so easily. (While saying this the medium coughed and waved Fanny away by hand movements.)

(While transmitting for another Communicator Feda suddenly said, amid a succession of little coughs by the medium): She came awful close, and that made me cough; it stops the throat. When they feel deeply they get drawn close without noticing it.

Feda: What did you say, please, Etta? What did you say? Oh, wait a minute. Yes, I see he's there. What does he want to say? Wait a minute. Oh, it's that Mr William, do you remember? He sends his greetings. I don't know why he is speaking to Stuart: he and Stuart seem to be rather friendly.

While a Communicator named Marion was in the midst of discourse, a lady who had previously spoken in the sitting intervened to give an opinion. Feda seemed to realize that this interruption was likely to cause confusion, and appealed to my sister, saying, "Perhaps Etta will take her out into the garden a bit. Just take her away a minute. That's better. Yes, that's all right. Now you go on, Marion."

Feda had remarked on my mother's interest in watching an ancestor then present, and I said, "You are very observant, Feda." She replied, "If you were where Feda is, and doing the work Feda's doing, you couldn't help noticing these things. I notice things which your mother doesn't know she is doing. When the ancestor is there and your mother is there (hand points to right and to left) your mother sometimes moves two steps that way so as to look at him better, so as to watch him. It's as if she's watching him, Mr Draytie, to see if he means something more than he's saying, because it has to do with you. Perhaps she doesn't know that she does it, do you see? and—What? No, she certainly hadn't been aware of doing it. Mr John thinks I am right.

The above remarks by Feda are selected from records covering several years. They imply that she sees Communicators present in the room and

can both observe their movements and hear their spoken words. Meanwhile all else goes to support this ; I notice nothing to cast a doubt on it. Yet it would, of course, remain unconvincing were it not for (a) the arresting accuracy of the many-sided and multiplied evidential portions of the messages, and (b) a compelling sense of the presence and characteristics of the persons purporting to speak.

The combined result of these features gives much the same impression as does a conversation over the telephone, save that one does not hear that identifying personal *quality* of voice which is usually recognizable over the phone. I do not suggest that talks through a medium are as free and unrestricted as over the phone ; for that would be to press the similarity unduly. But the similarity is there, as those who have enjoyed a really good sitting (and not allowed its impression to fade with time!) will realize.

Add this to the evidence provided by direct-voice whispers and it will be realized that my hypothesis for the real presence of an embodied Communicator is sufficiently strong to warrant my whole-hearted belief.

CONCLUSION

In the course of my twenty-eight years of Leonard sittings there has been nothing to throw doubt on Feda's ability to see and accurately describe the Communicators, and also to hear their spoken words. This ability seems to differ from our use of eyes and ears in that Feda habitually uses only one of these senses at a time, and not the two together as do we. Whether she cannot see and hear at the same moment, or whether it is her habit to concentrate on one at a time, I do not know, nor does it concern our present quest ; suffice it that she certainly gives constant and abundant proof that she can *see*, and equally compelling proof that she can *hear* actual words, while the sitter hears nothing but her voice.

And then, during the sitting, everything happens exactly as if the Communicator were just in front of the medium and at the sitter's left shoulder ; that means that he occupies a definite position in space.

It would be difficult to accept the above without admitting that the Communicator is present in body, even if we are unable to picture exactly what kind of substance forms the body which to our senses remains intangible and invisible. We have quoted sufficient to show that Feda and Communicator stoutly assert such bodies.

At this point some readers will think that reference should have been made to exteriorization of the etheric body and also to full-bodied materializations. But I think it best to deal only with those aspects of psychic manifestation which I have personally experienced, and experienced repeatedly year after year through more than 500 sittings. Those readers who have studied the physical phenomena of the séance room will be able to add support for my hypothesis.

The new evidence which is adduced in this paper concerns the direct voice in Leonard sittings. It is difficult to believe that this voice could be produced without a producer, and a producer who was using bodily organs of some kind for his speech.

It is unnecessary for the purpose of this article to allude to the view held by Theosophists that certain changes will take place successively in one's other-world body, or perhaps that it already consists of a succession of bodies one within the other like the skins of an onion. This paper does not go beyond the view that the other-world body is essentially the one which we already possess, but which does not come into its full activity until it has broken free from the flesh at death.

THE PSYCHIC EMANATION

It is obvious that the phenomena of good mediumistic sittings depend on the presence of something which is either absent from the happenings of mankind's daily life, or is not acting there in the same conditions and manner. What is this mysterious something? In my view we find, in the facts adduced above, sufficient to indicate that it is something proceeding from the medium. Although imperceptible and intangible, it may be studied by the results which its presence makes possible. Modern science has made great discoveries by inferring, from results observed, the nature of invisible things ; in similar manner we can infer the presence of this psychic emanation and something about its nature. It would seem to differ from any substance known to science, and to be closely related to the nervous energy of the physical body. What is the difference between a living body and the same body immediately after its life has been extinguished by a stroke of lightning? "Its life is gone," we say. But what exactly is that "life", the absence of which leaves but a corpse devoid of energy and mental action?

It may be that we are correctly informed when Communicators assert that the power, or emanation, coming from the medium brings with it, or contains, something of her living energy and therefore of her mind. It is not exactly material, but seems on the border line between matter and spirit (Spirit being thought of as the energizing and life-sustaining factor). If then this emanation partakes of both this world and of an existence beyond it, we have here the intermediate substance which makes possible the interaction between matter in the brain and the Self which interprets nerve impulses coming from the five senses. We see, feel, etc. and we perceive thereby our material environment. In lowly forms of life, such as insects and animals, this takes place in low degree. In higher forms of life, as with ourselves, it takes place in higher degree. In mentally alert and in spiritually minded people it would seem to act in a degree yet higher. In the psychically sensitive it enables a mode of seeing, hearing, feeling and impression which is independent of the five physical senses.

THE NON-MATERIAL BODY

Our earth and its material objects are perceived by us because they are in a certain condition. Were they reduced to the gaseous state, or to their ultimate electric forces, they would no longer be perceptible to our senses.

When we change from our habitation in the physical body and find ourselves in an etherial one, our etherial senses will no longer be in correspondence with material objects, but with etherial environment.

Hence visitants from the Beyond speak of our doors and walls as misty and penetrable ; they speak of their ability to move through them without hindrance or inconvenience, much as mist blows through wire netting or the leafless trees of winter.

By analogy it might be said that, on the chessboard of reality, they move on the white squares while we move on the black ; hence each moves freely without impeding the other.

It is not easy to realize the real presence in our home of one who died, and whose body we saw buried. Repeated evidence given through sensitives to whom we are strangers is arresting ; it often describes with accuracy objects in our private room, and conversations of which none outside the house could know. It is so difficult to picture the invisible Communicator noting these trifles in order that he may offer them as evidence of his visit ; so difficult, indeed, that every kind of alternative explanation is toyed with rather than accept the simple truth. Some of these guessed alternatives are ingenious, and the most effective of them embody such half-truths that it is, perhaps, the more scholarly and intellectual persons who are most influenced by them.

We are so accustomed to depend on the senses of sight, sound and touch that inference from observed facts, our own and those of others, seems too frail a cord on which to hang a stupendous fact.

For without doubt the presence with us, from time to time, of those whom we have long regarded as " departed ", gone for ever, would be as pulverising to a multitude of accepted ideas as was the atomic bomb to Hiroshima. I should not have said " the presence ", but rather a firm acceptance of it as a fact based on adequate evidence. To conventional minds such a revolutionary fact would require, not merely adequate evidence, but its general acceptance by society. Until clergy, doctors and scientists believe, and the Press broadcasts it, why should one risk ridicule by professing belief? And so ulterior motives and fears are called in to excuse hesitancy and incredulity.

But the prize is great! No unnecessary risks should be accepted ; yet independent thought and conclusions, firmly based on ascertained fact, should be forthcoming by at least one here and there ; and where such an one leads to-day the multitude will follow on some radiant to-morrow.

For myself, I have no trace of doubt. I know that the invisibles visit my home ; yet I have not the sensitivity needed for clairvoyant glimpse of them, the clairaudience, or the convincing feeling of their nearness! Some have these gifts and I envy them ; the arduous path of study, argument and inference is not for these favoured souls. They can enter into a realization of the truth as easily as do children into a realization of this world of sense.

But it may be that those who pay most for truth do most appreciate it when obtained, and also make the best use of it.

Such would be the convinced scientists, the philosophers, the biologists and the physicists. Something new would be added to that which they know, something shedding light on dark problems, opening out a new path of understanding.

Between body and the Self, there would be recognized an intermediary which translates sense vibrations on the brain into perceptions by the

Self ; a body whose form was the mould, or scaffolding, upon which the growing physical form was built up to maturity.

The hypothesis put forward in this article, namely, the real but non-physical body of Communicators, seems to me a decided advance upon the current ideas about materialization. Readers will be familiar with the work of Baron von Schrenck Notzing and others on that subject ; the general conception being that the materializing mediums supply from their own body the sheath, or covering, which protects the emanation, and that this combination (called ectoplasm) is built up into the form of a human body, in whole or part ; that, in the best instances, this temporary body can be somehow indwelt by a discarnate, even to the degree of making speech and movement possible.

Similarly in regard to Direct Voice séances, the general idea is that the ectoplasm provided by the physical medium is built up into temporary voice organs which the discarnate can use for speech.

In both cases it is surmised that, without these temporary loans from the medium, a discarnate is devoid of a body, or at least of anything corresponding to our idea of bodily substance.

It has always been a strain on the imagination to suppose that vocal organs could act on air without lungs, or that lungs and vocal organs could be supported on nothing during their brief activities in the séance room. On my hypothesis the vocal organs and the complete body are already in existence, the Communicator comes to us in that body—his other-world body—and has but to make use of such conditions as the séance room offers. He can, for materialization, clothe or impregnate his body with the ectoplasm ; while, for Direct Voice, he simply speaks and relies on the vibration produced in the psychic emanation to effect a secondary vibration in the air, so making his speech audible.

This hypothesis considerably simplifies the previous conjectures and, to that extent, makes credence more easy and intelligent.

If, then, my hypothesis should prove true to fact, we have a means of studying, in some small degree, that bodily form which will be our only one when at death we leave flesh and blood behind. And, furthermore, we have means of investigating the extent of its functions here and now as an intermediary between the essential Self and this physical body which for the time being we inhabit.

SOME EXPERIMENTS IN WILLED DIE-THROWING

BY J. FRASER NICOL AND WHATELY CARINGTON

INTRODUCTION (W. W. C.)

SOME time in the course of the year 1934, or thereabouts, I was informed privately by Dr Rhine of the remarkable results he had been obtaining in what is now commonly known as Psychokinesis (PK), notably as regards attempts to influence the fall of a die by merely "willing" which face should come uppermost. It seemed to me important that these experiments should be repeated, and their outcome confirmed, if possible; but contemporary circumstances prevented my undertaking the necessary work myself. I accordingly wrote to Mr Fraser Nicol, of Edinburgh, who had already performed a large number of experiments of this kind in connection with my experiments in Precognitive Guessing.¹ In the course of the next three years, or thereabouts, Mr Nicol carried out a great deal of work on these lines, involving a total of more than 139,000 throws.

The results obtained were highly suggestive of a positive effect; but it was felt that they were not strong enough, where a phenomenon of so novel and startling a character was concerned, to warrant publication in the absence of supporting evidence, especially as the most important effect (p. 172 below) was not discovered till quite recently. Moreover, Dr Rhine did not begin to publish his own results until March 1943, and it might well have been deemed improper for us to have published our lesser contribution, even with due acknowledgments, before he felt that his much greater one was ready to be presented. The whole matter was accordingly put into cold storage, and until very recently no more than relatively superficial assessments of the results were attempted.

With the publication of Dr Rhine's results, however, it has seemed worth while to re-examine the data somewhat more thoroughly, and an account of the course of the experiments and their outcome is presented below. It is not claimed that the results obtained amount to anything approaching coercive demonstration of the phenomena, but it is felt that they constitute useful collateral evidence tending to support Dr Rhine's main conclusion.

PART I. ACCOUNT OF EXPERIMENTS (J. F. N.)

THESE attempts at willed die-throwing began on 7th October, 1934; the bulk of the work was carried through in two years, and the whole series came to a conclusion on 15th August, 1938. In all there were 227 experiments or "runs". With only some half-dozen exceptions a run comprised either 120 or 2400 throws. The total number of throws was 139,396. Of this total, 133,756 throws were witnessed and 5,640 were unwitnessed. Only one die was used in each experiment (in Group 2 two dice were

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brought into action, but only one of these had any direct relationship to the PK side of the work).

From start to finish the shaking and throwing were done by hand, without the use of mechanical contrivances. The same leather shaker was used throughout. Its internal measurements were: height 7.8 cms., diameter of base 4 cms., diameter of mouth 4.5 cms.

The shaking and throwing were conducted in the most straightforward fashion. All those who so unsparingly gave their time and patience to the work were well known to me, but even so a watch was kept for developments of "tricky throwing" and nothing of the kind was ever observed. It was a rule that the die must be shaken in the box at least once; in practice several quick shakes were generally made. The die was discharged on to a table and might roll any distance up to several feet. A die falling dead from the box—*i.e.* without rolling on the table—was disallowed, but this was a very rare occurrence. On occasions when the die fell to the floor the throw was recorded if the die came to a standstill in a level position and ignored if it were tilted, *e.g.* against the edge of a carpet or the angle of a wall.

It was also a rule that the die must get an unobstructed passage from the box to the table without intermediately touching the thrower's fingers. The throws were recorded in ink on suitably ruled sheets of foolscap paper.

The experiments may conveniently be subdivided into four groups.

Group 1 was not designed as an example of PK—in fact psychokinesis had not then been heard of on this side of the Atlantic, at any rate not by the present writer. It was planned as a new approach to the problem of precognitive guessing. My own efforts in that particular field were so feeble that it occurred to me—in an ironic hour—that a die might be a more successful prophet than myself. An experiment was therefore conducted on the following lines.

A die, afterwards known as the "selector" die, was thrown and the result recorded. A second, "working", die was then thrown and the result entered opposite the previous one. If the two figures coincided it was supposed that precognition was at work (subject of course to statistical assessment).

The notion that one die may precognise the fall of another die is doubtless as improbable an hypothesis as any thus far proposed in psychical research. The raw data were laid aside, and it was only at a much later date that a less repellent hypothesis suggested itself. This hypothesis may best be stated in the form of a question: Having seen the face shown by the selector die, was it possible that—unconsciously or otherwise—I then *tried or willed* to throw the same face with the working die? If such were the true course of events then the result, if statistically significant, would be a successful experiment in psychokinesis.

Group 2 comprises a series of 114 runs carried through between January and December 1935. Twelve persons took part, most of them performing at least seven runs of 120 throws each (see Table 1). In his first run the subject tried to throw 1's, in his second to throw 2's, and so on to the completion of the sequence with experiment six. It will be seen, therefore, that there was no liberty of choice. However, at the conclusion of this

routine he had one extra run, trying to throw a face-number decided upon by himself. Plainly, these chosen-face trials, if the results proved significant, could more simply be interpreted as successful precognition, rather than as psychokinesis. There is no need to call in a PK hypothesis when a presumably simpler one will amply explain any non-chance results. All of this work was witnessed except for a second, extra, routine set of my own.

When the throwing in this group had proceeded for some time, with a die known as "Die 2", it became evident that the poorest scores were returned when the target was face 3. The final data for this die (see Table 4) show that it was, if anything, even more heavily biased against 4 than 3; but at the particular time in mind there was no question that 3 was the most difficult face to "will". Because of the recalcitrance of face 3—and for no other reason—I determined to try to subject that face to a prolonged session of willing. It will therefore be clear that such an experiment was not a chosen-face experiment in the sense previously indicated.

It happened that on the night of this session no witnesses were available. The box and die were shaken with the left hand and the results entered with the right. The duration of the session was not fixed beforehand, and only the time on the clock (an early hour of the morning) brought the session to a compulsory close.

The score for these 3's will be shown in Section 2 to be highly significant. The whole affair is, of course, open to criticism, and this I think may follow two lines.

(1) That the throwing was prematurely stopped at a point where the score happened to reach a satisfactory stage of significance, but that if the session had continued longer the high scoring would have faded out and no significant result would have emerged. My own impression was, and is, that if PK be a genuine phenomenon its manifestation is probably spasmodic and variable (cf. Rhine's decline effect or certain variations discussed in Section 2 of this paper). To dismiss the present result as due to "premature stopping" may only blind us to the sort of thing that is going on.

(2) That the throwing and recording were unwitnessed and are hence undeserving of serious consideration. This is the objection which I would make against other experimenters finding themselves in the same plight, and I can hardly complain if the same criticism is directed against me—even though I have the fullest confidence that the results are substantially correct.

Several other efforts were made to throw other faces, on the same lines and for much the same reasons as those already given. Most of the throws were unwitnessed and the results were unimpressive. These were, however, recorded and have been included below.

Group 3 consisted of attempts by Mr Gordon L. N. Hadden and J. F. N. to throw specified faces with a Crown and Anchor die.

Group 4. Experience derived from Groups 1 to 3 seemed to point to the conclusion that high scoring was most likely to be attained if each session were continued over a rather long period, say an hour or two; and especially so if the throwing were carried out at a fairly high speed. Accordingly, Group 4 was conducted on the following lines:

Each run comprised 2,400 throws. At his first session the subject aimed at face 1, at his second at face 2, and so on up to the 6th and last session when the target-face was 6. Each person therefore made $2,400 \times 6 = 14,400$ throws. As eight subjects took part the total number of throws was 115,200.

From a technical point of view this group forms the most satisfactory section of the whole series. The conditions were tightened up and made uniform as far as possible. Thus the same die—Die 3—was used throughout; length of side 9 mm., weight 1.50 gm. The same dice-box was employed for all throws. The die being small and the box relatively large there could be no doubt about the thorough disturbance of the die when shaken. On all occasions the die was ejected on to a special piece of green baize stretched across whichever table was in use. All throws were witnessed.

A serious mishap broke into the throwing at an early stage. At the 2930th throw the die—Die 2—bounced from the table across the room and into a blazing fire. Consequently a fresh start had to be made, this time with Die 3, details of which have been given in the preceding paragraph. Thereafter events proceeded smoothly.

PART II. ASSESSMENT (W. W. C.)

THE data collected have been examined with some approach to exhaustiveness; but, since most of the results have been null, there is nothing to be gained by going into details here. It will be seen, however, that there are two major effects, and one of these in the large block of witnessed throws forming Group 4, which strongly indicate the operation of a genuine PK effect.

It will be convenient not to take the four groups of throws in their chronological order, but to dispose first of the small contributions from 1 and 3 before dealing with the more important 2 and 4.

TABLE I

	Group 1	Group 2		Group 3	Group 4
		Routine	Chosen Face		
Miss A. M. Y. Harper		720	240		14,400
G. L. N. Hadden -		720	480	1077	14,400
S. McMath - -		720	120		14,400
J. F. Nicol - - -	1200	1440 ¹	6720 ²	990	14,400
Mrs J. F. Nicol - -		1249	600		14,400
Miss L. F. Nicol -			120		
J. W. Nicol - - -		720	120		14,400
W. Roberts - - -		720	120		
J. A. S. Watt - - -		720	240		14,400
M. Watt - - - -		720	120		
Mrs M. Watt - - -		720	360		
J. Yorston - - -		3120	120		14,400
Col. Totals - - -	1200	11,569	9360	2067	115,200
Grand Total - - -					139,396

¹ Including 720 unwitnessed; ² Including 4920 unwitnessed.

Group 1, as explained in Part I, was not strictly a PK experiment at all, in the sense that it was not intended as such; but it is relevant because any significant result would involve supposing that PK factors were operative, even if precognition of how the second die was about to fall were assumed.

The work consisted of 1200 double throws, *i.e.* 1200 of the "selector" die and 1200 of the "working die", so to call them. The results are shown in Table 2.

TABLE 2

When selector die showed	Working die showed						Total
	1	2	3	4	5	6	
1	37						184
2		40					210
3			33				202
4				21			187
5					37		204
6						55	213
Total	195	190	198	177	195	245	1200

That is to say, the selector die showed 1 on 184 occasions, and on 37 of these the working die also showed 1, each of these 37 constituting a success or "hit"; the working die similarly showed 2 on 40 of the 210 occasions when the selector die showed 2; and so on. And the working die showed 1 on 195 occasions, 2 on 190 occasions, etc.

There are 223 hits (and 977 failures) altogether against an *a priori* expectation of 200 hits and 1000 failures. This gives X^2 as 3.174 and P slightly less than .08, which is not significant.

But it is evident by inspection that the selector die was heavily biased in favour of face 6, and the working die slightly so. To allow for this we do not use the *a priori* expectation of one-sixth the total number of trials, but calculate the sum of the products of corresponding marginal totals ($195 \times 184 + 190 \times 210 \dots$ etc.) and divide by 1200. This gives a true expectation of 200.7 successes and 999.3 failures. Note that this calculated expectation would necessarily agree with the *a priori* value if the thrower made equal numbers of attempts (*viz.* 200 here) at each of the six faces, instead of a number dependent on the vagaries of the selector die.

But the bias of the dice also affects the variance; so that, to obtain an accurate result, we make use of Stevens' method (*Proc. S.P.R.*, Part 162, p. 132) and calculate this quantity as 168.874. This, in conjunction with the true expectation of 200.7 successes, gives X^2 as 3.051 and P very nearly .08. The difference is trivial, but the procedure is one which must be applied in all doubtful cases, since dice can never be safely assumed to be unbiased.

The result is some way from significance; but the odds are about 11 to 1 against obtaining this number of successes, or more, by chance alone, which is perhaps more promising than one would expect. The technique seems one which might be worth further development.

Group 3 may be dismissed with even greater brevity. A total of 2067 throws was made by two subjects using a "Crown and Anchor" die. Of these 338 were successful against an *a priori* expectation of 344.5. The deficiency is not significant, giving $X^2 \cdot 125$ with $P \cdot 72$. But the die was heavily biased, and more exact treatment gives an excess of 11.4 hits above true expectation, with $X^2 \cdot 432$ and $P \cdot 52$. There is no suggestion, however, that any PK factor is at work.

Group 2 is much larger and very mixed. It consists, first, of 14,280 throws, of which 8,640 were witnessed and 5,640 were not, by 11 subjects using the die known as "Die 2". Of the witnessed throws there are six completed sets of routine work, in which the subject made 120 throws at each of the six faces in turn, one half-finished set, making 4,680 throws, and 33 runs of 120 throws each in which the subject was trying for some face chosen by himself, *viz.* 3,960 throws. The unwitnessed material, all by J. F. N., comprises two long series of 22 and 15 runs trying for faces 3 and 5 respectively, 4 runs trying for face 1, and one set of routine work. Total 47 runs, or 5,640 throws.

Then, with Die 4, there is a routine set and a chosen face run from each of four subjects, and a half set from another, making 28 runs or 3,360 throws. All these were witnessed. There is also half a witnessed routine set with Die 3.

Finally, I have included in this Group a total of 2,929 throws with Die 2, which were originally intended to be part of the big block of 115,200 throws known as Group 4, but were interrupted by accidental destruction of the die, as explained in Part I.

The total for this Group is accordingly 20,929 throws. These may conveniently be summarized in tabular form as under :

TABLE 3

	Die 2		Die 3		Die 4		Total	
	R	C	R	C	R	C	R	C
Witnessed	7609	3960	360	—	2880	480	10,849	4,440
Unwitnessed	720	4920	—	—	—	—	720	4,920
Total	8329	8880	360	—	2880	480	11,569	9,360
TOTAL								20,929

In this table *R* stands for routine work and *C* for chosen face trials. Since the results of chosen face trials, even if positive and significant, might be attributed to the subject having precognised a face about to appear with above chance frequency (as J. F. N. points out), we may set all these aside for the moment and begin by examining the witnessed routine throws with Die 2. The full data are given in Table 4.

It will be understood that the first three lines include the three runs of the half set mentioned above, and the top line also the 2,929 throws intended as the beginning of the big block of Group 4, but interrupted as explained.

The leading diagonal shows a total of 1,328 hits against an exact expectation, calculated from the marginal totals, of 1274.7, showing an excess of 53.3. The value of X^2 is 2.68 with P about .1, which is not significant,

though not unpromising. The values of the expectations for the six cells are 635.5, 159.0, 125.0, 106.2, 127.6 and 121.5. It is noteworthy that the observed number of hits exceeds the expected value in all six cases. The probability of this occurring by chance is $1/2^6$ or 1 in 64; but this must be doubled as the same would be true if all six observed values were less than expectation. Still, a value of P so small as .03 is by no means to be disregarded.

To the total excess of 53.3, the six complete routine sets contribute 29 points (749 hits against an expectation of 720), and the "oddmans", therefore, 24.3 points.

TABLE 4

When trying for	Subjects actually threw						Total
	1	2	3	4	5	6	
1	651	692	539	564	685	638	3769
2	132	164	127	132	139	146	840
3	155	165	134	113	135	138	840
4	117	144	112	120	117	110	720
5	119	134	102	102	135	128	720
6	109	141	118	91	137	124	720
Total	1283	1440	1132	1122	1348	1284	7609

No individual subject in this batch gives a significant result; the best value of X^2 is about 3.24 with P .07, and the second best is 2.88 with P about .09. The sum of X^2 s for all nine subjects is 8.21 with nine d.f., which is quite negligible.

The three witnessed routine runs with Die 3 show 58 hits; the expectation, calculated as one-third of the total observed frequency of the three faces (4, 5, 6) tried for, is 56.7, so that the subject just, though negligibly, gives a positive result.

The four witnessed routine sets with Die 4 show a total excess of 10 hits over the exact expectation of 480, which is negligible, while no subject comes anywhere near attaining significance. On the other hand, one subject (J. A. S. W.) scores so high as 35 in one of his runs of 120, against an exact expectation of 21.82, giving X^2 as 12.915 and P less than .001. But this is not maintained (he scores two points below expectation for his whole set) and can hardly be taken as definitely significant in the context of the whole group, though very well worth noting. Perhaps we might accord it a value of about .02 as the best of 24 runs forming this subsection of the data.

Considering next the chosen-face trials, which, as already observed, are of lesser importance, we find that the 33 runs with Die 2 show an excess of 37 hits above the expectation of 660, using the *a priori* value which will make no appreciable difference here; this gives X^2 as 2.498 with P about .12. No subject is at all outstanding, but J. F. N. scores 187 hits in his first batch of eight runs against an exact expectation of 165.6, giving X^2 as 3.34 and P about .07, which is mildly promising and of some interest in view of his later performance. The four chosen-face runs by the four

subjects with Die 4 are of little interest, for they only succeed in scoring a total of six points below a *a priori* expectation.

When we turn to the unwitnessed material by J. F. N. working alone we find results of considerably greater interest. The first item, chronologically, is a set of six routine runs, and in no way noteworthy, for the score is only five points above expectation.

But in his first attempt at concentrating on a single face (3), selected because the die seemed (and was) biased against it, J. F. N. scores no fewer than 493 successes in 22 runs (2,640 throws). The exact expectation is 415.89, calculated from all the Die 2 data, so that the excess is 77.11, giving a value for X^2 of 16.75 with P somewhat better than .0001 or one in ten thousand.

The distribution of successes within the runs is also remarkable. The scores in order are

19, 17, 18, 18, 22, 20, 25, 18, 24, 16, 25,
14, / 34, 25, 22, 29, 29, 27, 23, 21, 22, 25.

The first twelve runs (up to the dividing mark /) are uneventful and show only a score of 236 against an expectation of about 227, whereas the last ten are all above expectation and show a total of 257 against expectation of about 189. If we arbitrarily divide the series into halves and compare the first with the second, we find X^2 as 5.75 with P less than .02. Note that all 22 runs were done at a single session.

It is, of course, exceedingly unfortunate that this series of trials was unwitnessed, and anyone is entitled, if he insists, to disregard it altogether on this account. But it seems difficult to understand why, if J. F. N.'s subconscious suddenly elected to make him cheat, or discovered how to do so, it should not have kept it up in his subsequent attempts, also unwitnessed, under substantially the same conditions. These consisted of 15 runs (1,800 throws), also in a single session, aimed at face 5, which gave only 323 hits for an exact expectation of 316.7, the excess of 6.3 being negligible; and four runs trying for face 1, which yielded only 67 hits against exact expectation of 78.4, which is also of no interest.

Note also that the successes in the big session for threes cannot plausibly be attributed to precognition, because the face was chosen on the express ground that three was one of the least likely faces to be thrown.

It is believed that, despite their being unwitnessed, these runs may safely be accepted as having considerable evidential value.

Group 4, consisting of 115,200 throws made by eight subjects, each of whom made 2,400 throws in trying for each face of the die, is, in a way, the *pièce de résistance* of the work, and accordingly deserves especially careful study; but its compact form enables us to deal with it a good deal more easily than the group just considered.

The total score in the leading diagonal amounts to 19,291 hits, while the exact expectation is, of course, 19,200. The difference of 91, though positive, is very far from significance. Its variance, calculated by Stevens' method is 15,954.07 with standard error of 126.305, giving a normal deviate of only .720 with P no better than about .47. Subjects clearly do not, in general, succeed in throwing the faces they desire to any non-chance extent.

The main results are given in Table 5 below :

TABLE 5

When trying for	Subjects actually threw						Total
	1	2	3	4	5	6	
1	3481	3421	2778	2961	2907	3652	19200
2	3439	3507	2735	2943	2854	3722	19200
3	3570	3571	2638	2881	2833	3707	19200
4	3451	3601	2663	3016	2803	3666	19200
5	3419	3559	2724	2904	2934	3660	19200
6	3568	3630	2739	2836	2712	3715	19200
Total	20928	21289	16277	17541	17043	22122	115200

But, logically speaking, the more fundamental question is whether throws are wholly independent of intention, as they should be if chance factors alone are operative ; for it might well be that subjects, exerting some kind of influence over the fall of the die, but unable, through ignorance, etc. properly to control it, might produce results other than those intended.

To investigate this we apply the ordinary test of independence for a contingency table, calculating the values of X^2 for each of the 36 cells and summing to obtain a X^2 with 25 d.f. This comes to 38.371, with P somewhat better than .05. We may conclude with fair assurance that the face thrown is *not* independent of the intention of the thrower, even though that intention is not directly realized.

The principal way in which this non-independence shows itself becomes clear, if we tabulate the deviations from expectation for each cell separately, as in Table 6.

TABLE 6

Willed	Thrown					
	1	2	3	4	5	6
1	-7.00	-127.17	65.17	37.50	66.50	-35.00
2	-49.00	-41.17	22.17	19.50	13.50	35.00
3	82.00	22.83	-74.83	-42.50	-7.50	20.00
4	-37.00	52.83	-49.83	92.50	-37.50	-21.00
5	-69.00	10.83	11.17	-19.50	93.50	-27.00
6	80.00	81.83	26.17	-87.50	-128.50	28.00

The deviations, of differing signs and magnitudes, are for the most part scattered erratically about the table ; but there is one feature that at once strikes the eye, namely the fact that, in the leading diagonal, all three deviations for the low valued faces, 1, 2 and 3 are negative, and all those for the high faces, 4, 5 and 6 are positive. The total for the low faces is -123.00 with mean -41.00, and for the high faces 214.00 with mean 71.33. The difference between the totals is 337.00 and between the means is 112.33.

Now, it has recently been shown by Stevens (unpublished result) that the variance of any linear function

$$C = k_1c_1 + k_2c_2 + k_3c_3 + \dots + k_nc_n$$

of the leading entries, $c_1, c_2, c_3 \dots c_n$ of an $n \times n$ Contingency Table is given by

$$\text{Variance (C)} = \frac{1}{N-1} \left\{ M^2 + N (\sum km) - \sum k^2 m (a+b) \right\}$$

where $m_j = a_j b_j / N$; $M = k_1 m_1 + k_2 m_2 + \dots + k_n m_n$; $a_1, a_2, a_3 \dots a_n, b_1, b_2, b_3 \dots b_n$ are the row and column totals; and N the grand total.

To test the significance of the difference between the High and Low scores, we take $k_1 = k_2 = k_3 = -1$ and $k_4 = k_5 = k_6 = 1$ and from the data of Table 5 find the variance to be 12,754.82 with standard error 112.935. Since the difference, as noted above, is 337, this gives $D/s = 2.984$, with $P = .0027$, which is highly significant. It would remain significant at .027, even if we were to multiply by $6!/2 \cdot 3! = 10$, which is the number of ways in which it is possible to divide six entries into two groups of three each; but of these the only two sharp and natural divisions seem to be into High and Low and Odd and Even, so that to multiply by 4 would appear to meet all reasonable requirements.

There seems no doubt that this is a genuine effect, and it is not so recondite or so "senseless", if I may put it so, that it can be dismissed as just one of those significant features which one is bound to find sooner or later, if only one examines enough of them. It is not, so to say, a first order effect—the total overall score, which was the prime object of the work, is unique in that—but it is a very good second order one; for the question whether subjects do better with some faces than with others is one of the most obvious to ask. And it is not particularly far-fetched to suppose that some such factor as a subconscious antipathy to low values might reverse the PK influence, and thus cause it to cancel out the positive result obtained when trying for high faces.

The effect appears to be general rather than confined to a few subjects only, as is shown by the contributions made to the deviations for low and high faces by individual subjects, as shown in Table 7.

TABLE 7

Subject	Low	High	Total
AH	40.38	40.63	81.01
GH	-40.62	-15.37	-55.99
SM	-21.62	70.63	49.01
FN	23.38	17.63	41.01
JN	-37.62	74.63	37.01
WN	-36.62	-10.37	-46.99
JW	-33.62	20.63	-12.99
JY	-16.62	15.63	-.99
Total	-122.96	214.04	91.08

(The minor discrepancies between these and previous figures are, of course, due to the arithmetical approximations used.)

It will be seen that six subjects out of eight score below expectation when trying for low faces, while the same proportion score high when trying for high faces.

If we square and sum the totals for the different subjects (using the whole number values) and subtract $91^2/8 = 1035.125$, we obtain 16,491.875 as the sum of squares of deviations from the mean. Dividing this by the theoretical variance per subject (14,400 throws) of 2000, which is accurate enough for this purpose, we obtain 8.246 as a X^2 with 7 d.f. representing the extent to which subjects differ between themselves. This is negligible with P about .3, from which we conclude that these subjects do not differ sufficiently between themselves in their over-all performance, for the difference to be shown significant in this number of trials. Corresponding values of X^2 for the Low and High figures separately are, respectively, 6.566 with P about .5 and 7.809 with P about .4. This confirms the conclusion reached by inspection that subjects do not differ except by chance in the contributions they make to either the low or high halves of the leading diagonal.

Subjects equally show no individual preferences for throwing certain faces rather than others. The relevant data are given in Table 8.

TABLE 8

Subject	Frequency of Faces						Total
	1	2	3	4	5	6	
AH	2584	2730	2000	2167	2193	2726	14400
GH	2602	2680	2065	2188	2162	2703	14400
SM	2685	2612	2049	2206	2116	2732	14400
FN	2654	2564	2059	2243	2070	2810	14400
JN	2588	2679	1988	2262	2182	2701	14400
WN	2633	2674	1992	2102	2139	2860	14400
JW	2615	2672	2037	2138	2099	2839	14400
JY	2567	2678	2087	2235	2082	2751	14400
Total	20928	21289	16277	17541	17043	22122	115200

Applying the ordinary contingency table technique, we obtain 42.33 as the value of X^2 with 35 d.f. This is quite insignificant, with P about .37.

A considerable further amount of work has been done, mainly by J. F. N., in counting scores by pages, runs of 120, columns of 30, rows of 24, etc., with a view to detecting regressions, other abnormalities of distribution, and so forth; and I myself have pursued a stage or two further the process of analysing the data of the block. But all results have been null, and there is nothing to be gained by going into details here. Besides, one would in any event be naturally and properly somewhat suspicious of results not admitting of relatively straightforward interpretation, and obtained only by elaborate squeezings of the material, if they were not supported by others of a simpler type.

We may, however, notice the absence of any Quarter Page effect of the kind discovered by Rhine. The distribution of hits in the four quarters

of the scoring sheet (Upper Left, Upper Right, Lower Left, Lower Right) are shown in the fourfold table below :

		Left	Right	
Upper	-	4795	4883	9678
Lower	-	4798	4815	9613
<hr/>				
Total	-	9593	9698	19291

The value of X^2 is .259 with P about .51, which is quite insignificant ; and so is the sum of the corresponding X^2 s for the eight subjects taken separately, which comes to 6.010 with 8 d.f. and P about .6. The method is only rough, but sufficient in the circumstances.

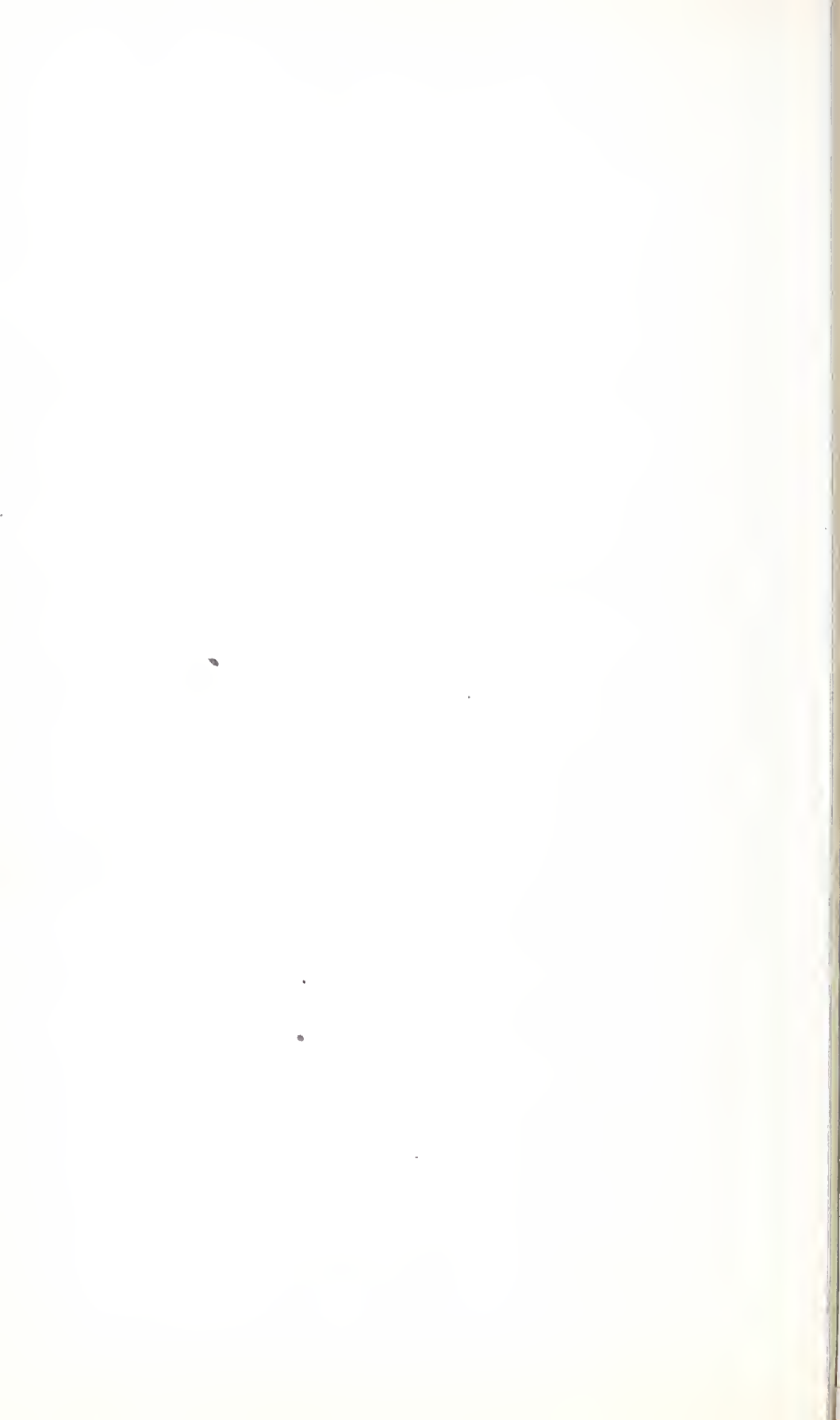
When we attempt to assess the work as a whole, I think we should, as a matter of strictness, set aside the chosen face trials for the reasons already given, and regard J. F. N.'s remarkable performance in throwing threes as in the nature of collateral though strong supporting evidence. Restricting ourselves thus to the witnessed routine trials, there are three main features which seem to me to be worth noting.

First, there is the fact that of the six main divisions of the work—*viz.* Two Dice, Crown and Anchor Die, Six complete sets with Die 2, Odds with Die 2, Four complete sets with Die 4, and the Block of 115,200 throws just considered, *all* show a positive result. So, indeed, does the half set with Die 3, but this is so small and the result so feeble that it seems hardly decent to count it. The probability of obtaining six positive results is only 1 in 32, as already noted.

Second, there is the similar fact that all six cells of the leading diagonal of Table 4 show positive deviations.

And, third, there is the curious but quite significant contrast between the low and high scores for the big Block of Group 4. I admit that I should feel happier about this if I could think of some plausible and straightforward explanation of it ; but perhaps this would be too much to hope for in the present state of our ignorance, and I think there can be no doubt that the effect is perfectly genuine.

No doubt it would be possible, though not very easy, to devise some plan for combining these three probabilities with due regard to the discounting appropriate to the contexts in which they occur ; but I think that this would be definitely artificial, and very possibly misleading. From the common-sense point of view—and common sense has a place even in statistical work, current beliefs and practices notwithstanding—I think a reasonable conclusion is this : That if this work stood alone, it would not be sufficient to warrant the acceptance of so revolutionary an hypothesis as that of psychokinesis ; but that, in the light of the work reported by Rhine (and on a smaller scale by others) it may be regarded as highly probable that J. F. N.'s subjects were in fact exerting, sometimes and in relatively low degree, some sort of influence on the fall of the die, though this influence was erratic and uncontrolled, so that it did not in general produce quite the effects desired.



PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH

PART 174

THE PSI PROCESSES IN NORMAL AND "PARANORMAL" PSYCHOLOGY

R. H. THOULESS AND B. P. WIESNER

It is perhaps desirable that we should begin by trying to make clear the object of the present paper. Thinking about the accumulated results of psychical research is rather like playing with the pieces of a jig-saw puzzle. There is a great deal there but it does not seem to fit together; still less do the bits seem to fit into the already largely completed pattern of scientific psychology, physiology, etc. spread out on the table beside it. That the facts of psychical research are really odd bits which do not fit in anywhere is possible, but it is a possibility which we are unwilling to accept until we are forced to. So we must try to make a pattern of them somehow. If two or three pieces seem to belong together we must fit them together and see how it goes. There is nothing final about this; a promising start may turn out wrong and the bits must be torn apart again. Nor must we regard as final the patterns of the part of the jig-saw already on the table; failure to fit our pieces in may be due to mistakes in the already completed part of the pattern; we must be ready to consider the possibility also that this may need altering.

We may succeed in fitting some bits together without seeing how the resulting groups themselves fit together. We may have managed to get right in some parts and wrong in others. It would have been better and more satisfactory to have been able to present a complete and perfect pattern without inconsistencies or untidy edges, but this may have to be left to our grandchildren. In the meantime, we must be content if we can fit some bits together and get some indication of what kind of pattern it is.

That is the object of the present paper. We have made some hypotheses which seem to us to fit together some of the facts of psychical research and which also seem to make it possible to fit them into the pattern of the more orthodox sciences of psychology and physiology although not without some change in the existing pattern of these. We make no claim to have proved the truth of the hypotheses we have put forward; rather we have tried to suggest grounds for supposing that they are not altogether wrong. It seems to us that we have some inkling of the kind of shape the pattern is going to take. We may not succeed in expressing this sufficiently clearly to create conviction or even understanding. We may be wrong; whether or not this is so will be known by the extent to which our suggestions prove fruitful for future research and for future advances in theoretical understanding. If our hypotheses are unfruitful they will be forgotten. It will

still have been worth while to have made the attempt ; our failure may help others to explore more profitable lines of advance.

The nature of our aim will, we hope, be sufficient explanation of why we have considered aspects of psychical research other than those whose reality is generally regarded as sufficiently established by laboratory experiment. If the most rigid criteria of evidence are required before an alleged fact in psychical research can be considered as unquestionably established, there is no reason for requiring equal weight of evidence before we can allow ourselves to consider how that alleged fact would fit into the general pattern. In trying to fit our jig-saw together it is necessary sometimes to try to fit in bits which may not belong to the pattern at all. So we have considered not only such respectable parapsychological facts as "extra-sensory perception" and "psycho-kinesis" but also materialisations and faith healing. Clearly it would be of no interest to consider such things unless there were considerable grounds for believing in their genuineness, but it would be absurd to refuse to consider them because not all psychical researchers are yet convinced of their reality.

Let us begin by considering in the most general terms the facts referred to by such terms as "extra-sensory perception", "paranormal cognition", "precognition", etc. Normal perception can be expressed behaviouristically (*i.e.* in terms of what can be observed by an outside observer) by saying that an organism makes some response which is adapted to some feature of the external environment, this adaptation being produced by a process in the organism's sensory nervous system initiated by some stimulus from the environment. E.S.P. can be similarly expressed as the fact that an organism makes some response which is adapted to some feature of the external environment although there has been no sensory process in the organism initiated by a stimulus from that feature of the environment. If the organism in question is that of a human being, we may supplement this behaviouristic knowledge and discover whether or not he was aware of that feature in the environment to which his behaviour showed adaptation. We find generally but not always that his adaptation of behaviour to environmental situation was accompanied by awareness in normal perception, and generally but not always that it was not so accompanied in extra-sensory perception. In both cases, the fact of correspondence between behaviour and environment may be regarded as the essential one ; awareness of the feature of the environment causing the adaptation of behaviour as an unessential one. In ordinary speech, we might express the fact that the behaviour of an organism showed adaptation to certain features of its environment by saying that it behaved "as if it were aware" of those elements of its environment. The fact of the organism behaving as if it knew a certain range of facts about the environment can be expressed by saying that that part of the environment is "projected" on to the behavioural system of the organism. [2] The sum total of these projections at any one time is what Koffka has called the "behavioural environment" of the organism [20].

In such an experiment as card guessing, what is observed is the fact of correspondence between environment and reaction. We find, for example, that the subject says "cross" when the cross turns up, that is, a piece of his behaviour appears to be determined by a fact of the external world.

We do not necessarily or even commonly also find that he is aware of that projected fact; he generally does not know whether he gives a correct response or not. It is, therefore somewhat misleading to use such a term as "paranormal cognition", since "cognition" would seem to imply more than mere correspondence between behaviour and fact. It implies also an awareness of the fact, and such awareness may or may not be present.

In order to avoid the misleading implications of such terms, we have preferred to adopt the symbol Ψ (psi) which, to begin with, has no implications except that all that it is used to cover are supposed to be processes not essentially different from one another. The term Ψ was originally used by us to cover such processes as telepathy, clairvoyance, precognition, etc. One reason for adopting this single symbol for a number of processes that had previously been known by different names was to suggest that these were not essentially different processes only united by the fact that they were "paranormal" (*i.e.* inexplicable on current theories of the psychology of cognition) but that they might be different aspects of a single process in which the organism was guided by environmental events not known by ordinary perceptual processes. The different names for "paranormal" cognitive processes were regarded by us not as indicating essentially different processes but as distinguishing different situations in which the one process might be manifested—*e.g.* presence or absence of knowledge in some other person's mind of what is cognised, and present or future happening of the event cognised. After the publication of the North Carolina work on psycho-kinesis [1] we extended our use of the term Ψ to include this also and we distinguished the motor aspect of Ψ (P.K.) from its cognitive aspect (E.S.P.) [2]. This extension, of course, also implies the hypothesis that P.K. and E.S.P. may not be essentially different processes but different aspects of one process. Professor Rhine has now expressed acceptance of this hypothesis [14].

It seems convenient to make a further modification in this terminology which will both bring E.S.P. and P.K. under one generic term and also distinguish them as different kinds of process of the same general class. We, therefore, propose to use the symbol $\Psi\gamma$ (psi-gamma) for the cognitive psi process (extra-sensory perception or paranormal cognition) and $\Psi\kappa$ (psi-kappa) for the motor psi process (or psycho-kinesis).

Both $\Psi\gamma$ and $\Psi\kappa$ are generally regarded as abnormal processes found to a marked extent in only a few people and perhaps to a negligibly small extent in a larger number of people. This is obviously true of E.S.P. and P.K. We wish to suggest, however, that these are merely unusual forms of processes which are themselves usual and commonplace, and that in their usual and commonplace form, they are to be found as elements in the normal processes of perception and motor activity.

In normal sensory perception, there is complete material causal continuity from the light waves or other form of energy passing from the object to the sense-organ of the organism, through the physical and chemical processes in the sense-organ and the electro-chemical field processes of the conducting system of neurons, to the resulting excitation in the sensory part of the cerebral cortex. But here there is something which appears to be other than a new link in a chain of material events: the production by a material process in the cerebral cortex of a conscious

mental event. The same situation arises on the motor side where material causal continuity is complete except for the translation of the conscious mental event of volition into the material changes in the motor area of the cerebral cortex which are the material cause of a willed action.

The hypothesis we wish to suggest is that, *in normal thinking and perceiving I am in the same sort of relation to what is going on in the sensory part of my brain and nervous system as that of the successful clairvoyant to some external event, and that this relation is established by the same means (i.e. by $\Psi\gamma$).*

It would be simpler but obviously incorrect to try to express this by saying: "In ordinary thinking and perceiving, I *know* what is going on in my brain and nervous system by the same means as that by which the successful clairvoyant knows some external event." This will not do because in ordinary thinking and perceiving, I obviously do not know what is going on in my brain and nervous system. When I perceive an external event, I do not perceive any physico-chemical processes that may be taking place in my brain. Yet these form one of the causal links in the total process of perception; in the linked chain of causes between the external event and the perception of that event, the physico-chemical processes of the brain are generally considered to be the immediate causal ancestors of the mental event of perception.

That the relation between me and the physico-chemical processes in my brain is not that of knowing may appear at first sight to be a difference between this relation and that of the successful clairvoyant to the external event since we are inclined to say that the clairvoyant *knows* the external event. This, however, is to allow oneself to be misled by the implications of the commonly used term "paranormal cognition". What we discover in a successful experiment in clairvoyance is, as has already been pointed out, not that the clairvoyant knows an external event but that some verbal or other behaviour response of his corresponds to the external event. He is, for example, guessing through a Zener pack. When the card turned up is a rectangle, he says "rectangle" or points to the pile of cards with a rectangle displayed above it. In spontaneous cases also, the immediately observable fact is a correspondence between his behaviour and some external event. The external event seems to be a causal ancestor of his reaction without the usual intermediate links of stimulus and stimulation of the sense organ. Whether it is the immediate causal ancestor of the response or whether there is here too a projection of the external event on the sensory parts of the brain, is a question on which we cannot, of course, have any direct evidence. We are assuming that there is no such brain process in clairvoyance and that the relation of the percipient to the external event is the same as that of the percipient to his brain processes in normal (sensory) perception.

We are hampered in the attempt to express this idea clearly by the fact that we have no word in ordinary speech to express the relation between me and my brain processes in normal perception. We have the word "cognition" for the relation between me and the external event, but it would obviously be an error to use this word for the relation between me and the corresponding brain processes. Let us then call this the γ relation. Since it is not always convenient to use a technical vocabulary, we can ex-

press the same idea in more ordinary speech by saying that in ordinary perception I am *informed* of the external event by the perceptual brain processes.

We suggest also that there is a similar identity of relation in normal motor control of the body on the one hand and the "paranormal" process of psycho-kinesis on the other. Our second hypothesis is: *I control the activity of my nervous system (and so indirectly control such activities as the movements of my body and the course of my thinking) by the same means as that by which the successful psycho-kinetic subject controls the fall of the dice or other object (i.e. by $\Psi\kappa$).*

Here also we may note that, just as the activity of the nervous system is not itself cognised in normal perception, so also in normal bodily activity the brain processes leading to action are not themselves willed. We will to move our arm, not to initiate the physico-chemical processes in the motor area of the brain which start the arm movement. In this case no difficulty is created for the verbal formulation of the hypothesis since the phrase "I control" used of my relation to the activity of the nervous system is not likely to be misunderstood as implying that these are directly the objects of volition.

The experimental investigation of psycho-kinesis has so far been confined to studying its effects on relatively large bodies and not on systems of the order of size of a body cell. The primary reason for this limitation has no doubt been the practical one of the great difficulty of eliminating disturbing factors in studying effects on such small systems. If, however, the effect exists, it is reasonable to suppose that the ideal mechanism for studying it would be one in which very minute forces could start processes in systems of small size, which processes could act as triggers for subsequent processes involving sufficiently large forces to be easily observable. If indeed a physicist could construct for us a mechanism in which there were delicately balanced systems of very small size, which balance could be upset by small forces yet was protected from being upset by small forces accidentally impinging from outside, and if, moreover, any change in these small systems could be automatically magnified to a large energy change in some larger system, then we might hope to have the ideal mechanism for the experimental demonstration of psycho-kinesis. We have not succeeded in devising such a mechanism for our laboratories. We suggest that the brain is such a mechanism: that in its motor aspect it is a mechanism perfected by evolution not only for distributing impulses received from the sensory system but also for translating by $\Psi\kappa$ my intentions and volitions into action.

We have so far used the term "I" in order to defer decision as to what general term shall be used to cover "I", "you" and "he" in the same sense. Interactionists have very often spoken of the "mind" controlling the body, but this word will not do for our purpose. The word "mind" is not now most generally used for that which thinks and decides but rather for the whole system of thoughts, memories, decisions, etc. Moreover, the common use of the phrases "my mind", "your mind", etc., implies that the word mind is used in some other sense than that of "me" and "you". The second objection applies equally to "self" as the general term for the "I" in the formulation of our hypothesis. The word which best expresses

our meaning is undoubtedly "soul", and our hypothesis could be expressed as that the soul is in cognitive relation with what goes on in the sensory part of the nervous system by Ψ_γ and controls the motor part of the nervous system by Ψ_κ .

The main objection to the use of "soul" in this connection is that this term also has an already existing connotation and that some part of this connotation may not be what is required for the present purpose. It seems better, therefore, as in the case of Ψ , to use a mere symbol whose connotation will be supplied subsequently by the observed facts.

We have used the Greek alphabet to supply symbols for the processes of parapsychology. Since, however, we are now dealing with something of a different order, a postulated entity and not a process, it seems convenient to mark this difference by using a symbol drawn from another alphabet, and we suggest for this purpose the Hebrew letter שׁ (Shin). The statement, therefore, that Shin is in relation with the sensory part of the brain and nervous system by means of Ψ_γ and that Shin controls by Ψ_κ the motor part of the nervous system, is the generalised form of the suggestion already made that I am in relation with the sensory part of my brain and nervous system by means of Ψ_γ , etc.

What is suggested may be expressed in other words. We suppose that what is unusual about extra-sensory perception and psycho-kinesis is not

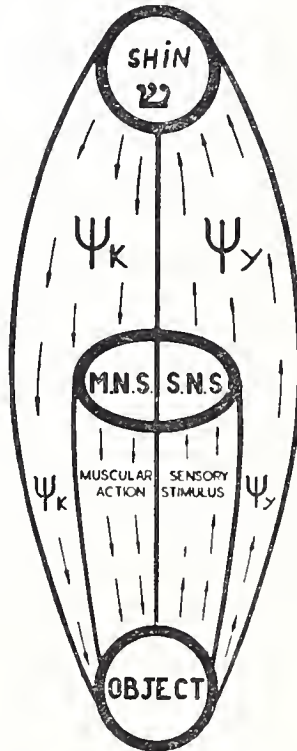


FIG. 1

that they are processes abnormal in themselves, but that they are exo-somatic forms of processes which are normally endo-somatic.

The supposed relationship of perceptual awareness with clairvoyance and of volition with psycho-kinesis can perhaps be made more clear by means of a diagram (Fig. 1). The upper circle represents Ψ *i.e.* Shin (that which perceives and wills). The central oblong represents the nervous system which is divided by a line in the middle into the motor part of the nervous system (M.N.S.) and the sensory part of the nervous system (S.N.S.). The circle below represents the external object which is being perceived or acted upon. The object sends light waves or other sensory stimuli which act on the sensory part of the nervous system. These are represented by the right hand half of the area between Object and Nervous System, while the left hand half of this area represents muscular action or other physical means by which the organism acts on the object. The areas which connect Shin with M.N.S. and S.N.S. represent respectively the postulated normal processes of $\Psi\kappa$ and $\Psi\gamma$ by which we suppose Shin to control the activity of the motor part of the nervous system and to be informed by processes in the sensory part of the nervous system. The parts of the $\Psi\kappa$ and $\Psi\gamma$ areas which pass outside the area representing the nervous system and directly connect the circles representing Shin and the object, represent the postulated "paranormal" Ψ processes of psycho-kinesis and extra-sensory perception by means of which we suppose that direct relations are established between Shin and the object without the intervention of the nervous system.

While the diagram shows (for the sake of simplicity) only the postulated Shin activity of one individual, we do not mean to imply that, in an experimental situation in which an experimental subject is showing successful paranormal cognition or psycho-kinesis, the situation is adequately represented in such a simple manner. The experimenter may also be paranormally cognising the object or influencing it by $\Psi\kappa$, and there may be telepathic interaction in either or both directions between Shin and nervous system of the kinds shown in later diagrams.

One reason for preferring to use the symbol Ψ rather than the word "soul" for that which is postulated to be in cognitive relationship with the organism and in motor control of it, is in order that we may not, by our choice of a name, prejudice any empirical questions which may later arise in connection with it. We are trying not to imply any opinion as to whether Shin ceases to exist at the time of death, whether if it survives death it is or is not still associated with an organism of some kind, whether it is peculiar to human organisms, whether it is simple or structured, changeless or changeable, separate or part of a larger whole. These questions are, no doubt, important and will go on being discussed. For us to express any opinion on them now would be, from the point of view of the present paper, an irrelevancy.

No doubt, the use of the term "Shin", like the use of "psi" does also imply a theory. As the use of "psi" implies that "telepathy", "clairvoyance", "precognition", etc. are all names for the same process occurring in different situations, so the use of the term "Shin" implies the rejection of the generally accepted view of the mind-body problem of the orthodox biologist, psychologist, and physiologist. This is the view that consciousness is "how the organism experiences the [*i.e.* its own] brain happenings" [18]. Rejecting the idea of a conscious being as "a 'soul'

imprisoned in a 'body' " [18] it regards a conscious being as " on the contrary, a portion of the stuff of reality organised so that it is intensely conscious " [18]. To all those who have been trained in the orthodox schools of biological psychology and physiology, any kind of soul theory is repugnant as a backward step in thought. It does not, however, appear likely that the current orthodoxy of biological psychology and physiology can assimilate the facts of psychical research without drastic reconstruction of its mind-body theory. It seems, therefore, to be an adventure in thought worth taking to discard our prejudice against soul theories and to consider whether the adoption of a theory of this type may not be the step necessary to make it possible to fit into the same theoretical framework the " normal " facts of scientific psychology and physiology and those " paranormal " facts which psychical research compels us to recognise.

The plausibility of the hypotheses we are suggesting depends in part on the extent to which " paranormal " $\Psi\gamma$ and $\Psi\kappa$ resemble the normal interaction between Shin and nervous system in perception and motor activity respectively. Let us first consider two characteristics of " paranormal " $\Psi\gamma$ processes—temporal displacement and symbolism—in which it appears at first sight that they differ from the processes of normal perception.

It was found by Whately Carington [3] and subsequently confirmed by Soal [4] that there may be a temporal displacement in extra-sensory perception, commonly taking the form of reacting to a future event when a present event is the one aimed at. There is also a feature of the γ relation of Shin with our nervous systems which may be considered to be of the nature of temporal displacement. We are not merely in this relation with what is happening now in our organisms but also with what has happened and with what is about to happen. The displacement towards the future is expressed by saying that we are aware not only of our present activities but also of our " intentions ". The use of this word " intention ", however, with its implication of a present process, tends to make us overlook the fact that what is known is a future event of the organism. In some cases at any rate, the fact of intending may be more correctly expressed by saying that Shin is in the $\Psi\gamma$ relationship not only with present events in the organism but also with those of its near future. The γ relation of Shin with the processes of the nervous system may, therefore, resemble extra-sensory perception in showing temporal displacement. It is also, of course, possible that memory may not always be (as supposed in current psychology) conditioned by present " traces " in the nervous system but may sometimes be a post-cognitive Ψ relation with past states of the nervous system or directly with past events themselves.

Another characteristic of $\Psi\gamma$ is that the cognition is not in general of the characteristics of the object cognised (as these characteristics appear to normal perception) but of something which is a substitute for this object, that is, some symbol of it. This symbolic character of $\Psi\gamma$ is obscured in card guessing experiments as ordinarily performed, since the test of success is exact correspondence between the guess and the object. In spontaneous $\Psi\gamma$ phenomena however, symbolic representation is very common, *e.g.* in dreams and when psychics cognise events present or future in the form of a visual symbol which needs interpretation. Although we may regard normal perception as in a sense representative of the external object, it is not a

representation of the physico-chemical processes in the central nervous system which are its immediate causal ancestors. In a sense then the percept may be regarded as a symbol of these events as the paranormal $\Psi\gamma$ process may be a symbol of the external object or event cognised.

These are respects in which normal perceptual processes may be considered to resemble the paranormal $\Psi\gamma$ processes, or, at any rate, to differ from them less than may appear at first sight. We must also consider a respect in which the laws of normal perceptual and volitional processes seem to be in sharp contrast with those of paranormal $\Psi\gamma$ and $\Psi\kappa$. This is the curious fact, often noted by experimenters, that effort to cognise in E.S.P. and effort to control the die in P.K. experiments is generally ineffective and tends even to reduce the rate of scoring. The most effective condition seems to be one in which the subject of the experiment retains a relatively casual attitude towards his successes, and one of the factors causing decline in successive experimentation may be that the subject begins to care too much about succeeding and intensifies his effort with consequent falling off of score. But voluntary effort to cognise and to act favours successful normal cognition and effective normal action, and (within limits) success and effectiveness are increased as effort is intensified. These facts suggest that the effect of effort may be to direct Ψ into the normal channels of being informed through the processes of the sensory nervous system and of control of the motor nervous system, and consequently away from the paranormal channels of direct interaction between Shin and object.

The adverse effect of volitional effort of Ψ success is illustrated by an observation made by one of us (R.H.T.) accidentally in an experiment directed towards other ends. When acting as experimenter in an experiment on telepathy, he had the task of thinking of a number from one to ten and then turning up one of a pack of playing cards and adding the number on the card turned up to the one already thought of. No attempt was made to make the number thought of the same as the one about to be turned up; whether it was or not was irrelevant to the purpose of the experiment. Nevertheless it happened that the number thought of was identical with the one immediately afterwards turned up 10 times in 40 observations, whereas the chance expectation is 4. The probability of the chance occurrence of a deviation from expectation as large as +6 is .0005. That equal success would follow an effort to guess the next card seemed improbable from the relatively low rate of scoring in previous card-guessing experiments with R.H.T. as subject [5]. To make sure on this point, the experiment was repeated in exactly the same way immediately afterwards but now R.H.T. was trying to guess the next card. Only chance results were obtained. While too much weight must not be given to a single observation showing a result which was not aimed at, the odds against chance of 2,000 to 1 suggest strongly that similarly designed experiments in which the subject does not know that the object is to look for Ψ effects might give striking results.

There is less evidence that intensity of volitional effort has a bad effect on success in psycho-kinetic experiments although this is the impression of some experimenters in this subject. A playful attitude towards the experiments rather than one of serious intensity has been reported by

Rhine to be most favourable to success [21]. One may be led to suppose the opposite by the fact that instructions to the subject are commonly that he should "will" the dice to fall in the required ways. It must not, however, be lost sight of that there seems to be no experimental evidence that this "willing" is a necessary condition for success or even a favourable condition. The intention that the dice should fall in a certain way may be all that is required. It may even be that any way of drawing attention to a certain die face (*e.g.* by counting the number of times it fell upwards while ignoring the others) might be sufficient to determine the P.K. reaction. These are matters for experimental enquiry; we must not assume that "willing" is the cause of the reaction merely because subjects are often instructed to "will". Plainly the instruction does not inhibit the reaction; there is no evidence that it helps it and some reason to suppose that strong volitional effort is unfavourable to success in psycho-kinesis.

If it is the case that effort directed towards Ψ success tends to prevent success, this may be simply explained if we suppose that voluntary effort directs the Ψ activity to its normal channel of communication with the nervous system. We may note that to direct subjects in Ψ experiments not to try hard is merely a negative direction. It tells them one thing not to do; it does not tell them what they ought to do. If there were any way of giving them a positive direction, of telling them what attitude they should adopt to get Ψ success, we should have solved one of the principal experimental difficulties in psychical research. Perhaps those subjects who show consistently positive results in Ψ experiments (the "psychics") have solved this problem for themselves. They too seem to be unable to communicate to others the secret of their attitude. It is not to be expected that they could. How could any of us convey what was the nature of ordinary volitional effort (trying to do something in everyday life) to someone who did not already know how to try or make an effort.?

The diagram in Fig. 1 represents in one part the direct knowledge of an external object or event by a Ψ process. Such direct knowledge is ordinarily now called "clairvoyance" (or "psychometry" when the situation is such that the use of an intermediate object to provide linkage with what is cognised is a salient feature of the situation). The suggestion that this takes place by the same Ψ_γ process as that by which Shin is normally in relation with the processes in the cerebral cortex in ordinary perception does not imply that such clairvoyant awareness is of the nature of a sensory perception obtained by extra-sensory means. On our hypothesis, perception of an object is a mode of awareness in which the brain process is an essential link: without that link one has a different mode of awareness. The differences to be expected between "paranormal" Ψ_κ and normal perception are, therefore, those due to the character imposed on normal perception by the characteristics of brain processes and by the physical and psychological conditions under which normal sensory perception takes place.

For example, what objects we see and what sounds we hear are primarily determined by such physical facts as the position of the head, the intensity of the stimuli, their distance, the presence or absence of screening, the fact that the stimuli reach the sense organs at the particular moment and not at some other time, and so forth. If these factors are determined in a parti-

cular way, then we must see and hear more or less what we do see and hear and nothing else. It is not quite true that our present perceptions are wholly determined by such external factors since there are also internal factors referred to as "interest" and "attention" which make a selection from the potential material of perception. The whole body of potential perceptual material is, however, determined by the above factors and if we know that a man is at a certain place at a certain time and we also know all the physical conditions of his environment and of himself, then we know more or less what he is perceiving.

But these limitations are the result of the known characters of the sense-organs and the perceptual processes; if these are short-circuited in "paranormal cognition" we cannot say what will be the limitations of the resulting cognitions. We have clearly no right to assume that they will be the same as the limitations of sensory perceptions. Are we then to expect no spatial and temporal limitations of paranormal cognitions? Clearly not, for this would be equivalent in practice to no paranormal cognition at all. If in a card-guessing experiment, a subject's responses were equally determined by the order of every pack of cards in the universe whether past, present or future, his results would be indistinguishable from a series of random guesses. If success in such an experiment is obtained, this means that somehow the subject's responses have been determined by the particular test set of cards. We may express this by saying that this test pack of cards has been, by some means, "singularised" for the subject, just as the normal perceptual field is singularised by the physical and other conditions of perception.

Of the factors which may determine this singularisation we know little. It appears experimentally that the intention of the experimenter or of the subject that this particular pack of cards will be guessed may effect the necessary singularisation. Both spontaneous cases and experimental results suggest that clairvoyant singularisation may take place by a telepathic impulse. In some cases singularisation takes place by the subject of the experiment seeing or holding an object which has been in physical contact with the object or person cognised. The process of Ψ cognition is then called "psychometry", but there seems no reason for regarding this as essentially a different process from other forms of clairvoyance. The necessity for some means of singularisation is present in all $\Psi\gamma$ phenomena and not only in those that take place under psychometric conditions.

Another way in which the nature of the perceptual process determines the resulting perception is in its phenomenal character. A seen objective field gives a visual pattern in an anisotropic three-dimensional phenomenal space; the music of an orchestra is perceived as a different kind of pattern of sounds with relatively indefinite localisation. There is no reason for expecting that a pure Ψ cognition will have any of the phenomenal characters of sight, sound, or any other modality of sense which depend on the co-operation of the sensory perceptual apparatus. We know, in fact, that a Ψ cognition is often received as a "symbol", for example, as a visual picture not representative of the thing cognised but requiring interpretation. For example, a psychic has reported that she knew that a friend was thinking of her (the psychic's) future because "I suddenly saw a beam of golden light shoot from the head of my friend in an arch

which passed over my head and fell beyond. I knew from its colour and composition that it was of an intellectual order. I knew it concerned me from its direction, and because the farther end of the arch fell beyond my aura I instantly deduced that it was not connected with the present moment" [10]. Although this experience was phenomenally visual, it was plainly not a visual perception since what was experienced was not representative of what was cognised but symbolic of it. The mind responded with one of its possible ways of experiencing (*i.e.* the visual) to a mode of cognition which had no characteristic form of experience peculiar to it.

It is not, therefore, to be expected that direct $\Psi\gamma$ knowledge of an event or object will generally appear to consciousness as a visual perception representative of that event or object. On the other hand, it may do so since perceptual representation is also a possible symbol by means of which the Ψ cognition may be presented to consciousness. This appears to be the case in what is now called "travelling clairvoyance" or, in the Scots Highlands, "second sight", where the subject appears to see the scene cognised as if it were a present visual perception. In these cases also, there seems to be no reason for believing that a true visual perception of an extra-sensory character is taking place. Rather it appears that they should be regarded as symbolic presentations of the cognised data in which the actual visual appearance has been utilised by the cognising mind as the symbol for their presentation to consciousness.

Let us now consider the telepathic form of Ψ . Telepathy has been generally regarded either as a process of one brain acting on another brain or as a process of one immaterial mind communicating with another immaterial mind (*i.e.* in our terminology, one Shin communicating with another Shin). There is a third possibility which we would suggest as a more probable explanation: that telepathy is a process of Shin acting on or being acted on by a nervous system other than its own.

The first type of explanation (that which regards telepathy as an inter-communication between one brain and another without the ordinary physical means of communication through the sense organs) remains within the limits of explanation by interaction of physical systems. It has, therefore, the advantage of requiring no radically new departure in thought. It is, however, a universally accepted postulate of science that for one material system to act on another material system, there must be a physical means of communication. Such a theory must, therefore, require the postulation of some unknown form of radiation to account for telepathy. For this there is no evidence, and, in view of the long distances over which telepathic communication has taken place, apparently without loss of effectiveness with increasing distance, the assumption must be regarded as highly improbable if not definitely disproved.

No such objection can be urged against the hypothesis of one mind acting on another mind if the mind is regarded as an immaterial entity (or, in our nomenclature, one Shin acting on another Shin). If there is such a process of communication, it is of a unique kind, and nothing can be said of the conditions under which it would be possible. All that can, we think, be legitimately said against it is that there seems no reason to postulate such a process since we can regard telepathy more simply as an interaction be-

tween Shin and another nervous system without assuming any other process of communication than those already postulated to account for normal perception and clairvoyance on the one hand and normal volitional action and psycho-kinesis on the other.

If we regard the Ψ processes as the normal means by which Shin is informed by and maintains control of its own nervous system, it does not seem unlikely that, in some relatively unusual cases, these processes may enable Shin to be informed by or to control some nervous system other than its own. The process of telepathy would then be of essentially the same nature as the processes by which I am in cognitive relation with my own nervous system and control my own actions. It would then be neither more nor less mysterious than these familiar normal processes.

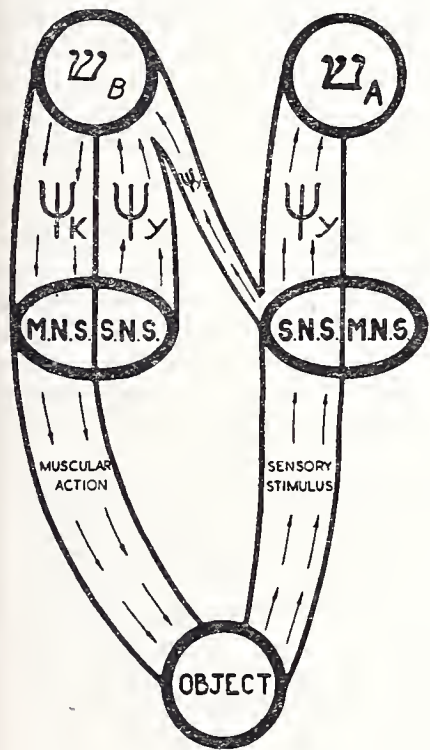


FIG. 2

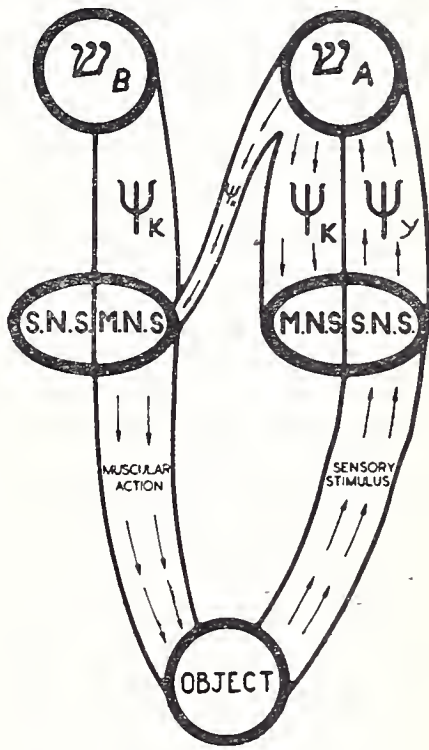


FIG. 3

This type of explanation would lead to two possible kinds of telepathy which may be found in different cases.¹ These two possibilities are shown in figures 2 and 3. In both cases, *A* is the agent and *B* the percipient. In the one case, there is a cognitive process on the part of *B*—Shin *B* being in cognitive relation by Ψ_γ with the processes in *A*'s nervous system (Fig. 2). In the other, there is a motor process in *B* initiated by Shin *A*—Shin *A* influencing the motor part of *B*'s nervous system by Ψ_κ (Fig. 3). We may conveniently refer to these two kinds of telepathic process as γ -telepathy and κ -telepathy respectively.

If telepathy is sometimes a process of the type we have called γ -telepathy

¹ As has also been suggested by Driesch [13] who distinguishes between "thought-reading" (γ -telepathy) and "telepathy" (κ -telepathy).

we have an explanation of the fact, observed frequently from the earliest days of psychical research, that a percipient (*e.g.* a medium) may report some memory of the agent of which the agent is not himself at the time thinking. That is, the percipient seems to be tapping directly the nervous system of the agent and not his consciousness; he is able to become aware of latent memories of the agent just as the agent himself might become aware of them. This, we think, is an argument for regarding the process represented by Fig. 2 as an essential part in such telepathic situations.

Fig. 3, on the other hand, seems to represent the type of thought transference aimed at in such an activity as the "willing game" in which an action determined by *A* is carried out by *B*. It may also be the type of telepathy involved in cases of spontaneous telepathy where a crisis in the life of *A* seems to be a determining cause of a telepathic experiences of *B*. This may not be Shin *B* becoming aware by $\Psi\gamma$ of what is happening in the nervous system of *A*. It seems more likely that *A* is the active one, and that he is affecting the thought of *B* by $\Psi\kappa$ action on the brain processes of *B*. In other words, this seems more easily explained as κ -telepathy.

In the experimental situation in which *A* turns up a card and *B* responds with the name of that card, either type of process may be taking place. As has been pointed out by Rhine [6], this experimental situation also does not exclude the process commonly called clairvoyance which is represented in Fig. 1, *i.e.* direct cognition by Shin *B* of the object by means of $\Psi\gamma$. The latter possibility may, however, be excluded by a suitably devised experiment in which there is no external object to be cognised [7]. It does not seem to be possible at present to devise an experimental situation which would discriminate between processes of γ - and κ -telepathy.

We can, however, examine the nature of telepathic situations in order to obtain light on which of these processes is involved. It has already been argued that the fact that, in some cases, *B* may report a memory of *A* of which *A* is not at the time aware, is evidence that, in those cases, there is a process of γ -telepathy. Similarly, we may consider the well-known fact that, in card-guessing experiments, the subject may give right answers in excess of chance expectation without knowing which of his answers is right and which wrong. This makes it unlikely that his response is a cognitive one (γ -telepathy) and indicates strongly that it is a motor response directed by the $\Psi\kappa$ of the agent, *i.e.* that it is κ -telepathy.

Indications of the same kind are found in the experiments on reproductions of drawings found in the first volume of our *Proceedings* [8]. On p. 191, for example, there is the drawing of a bird reproduced as a geometrical figure with remarkably similar outline but without any idea that a bird was the object represented. A cognitive process by the percipient could not have failed to get the central fact in the agents' awareness that a bird had been drawn unless it had failed altogether to hit on the object. This reproduction must be regarded, therefore, as probably telepathy of the κ type in which Shin (agent) influenced the motor nervous system of the percipient to draw the required outline.

The evidence seems, therefore, to suggest that both processes of γ - and of κ -telepathy may be present in telepathic phenomena, possibly one or other being dominant in different situations.

Another direction in which we may find evidence of $\Psi\kappa$ action of one Shin on another organism is in some, at any rate, of the phenomena of hypnotism. Since the time of Liébault, it has become customary to regard hypnotism as entirely an effect of "suggestion", as the response of the hypnotised person to verbal or other signals given by the hypnotiser and perceived by the hypnotised person through normal sensory channels. This explanation cannot, however be held to cover all the phenomena of hypnotism unless we ignore some well attested results of the investigation of hypnotism as, for example, the induction of hypnotism by the volition of the hypnotiser without perceptible signals and at a distance even of half a mile [17].

Let us now turn to a very different aspect of Ψ , that found in the phenomena of materialisation. We have no personal experience of these and we know that there is controversy as to their reality. There seems, however, to be sufficient evidence that materialisation phenomena sometimes take place. Much of the evidence is dubious and much is probably fraudulent, but all that is necessary to support this conclusion is that at least one materialisation should have taken place under conditions precluding fraud. There are probably more than one observation fulfilling these conditions, but the observation of a hand-like protrusion observed during a seance with Rudi Schneider on Dec. 23rd 1929 is sufficient to establish the fact that such things can happen when the possibility of fraud is excluded [9].¹

The phenomena described are of some material or quasi-material substance apparently derived from the medium's body on which forms of hands, faces, etc. are imposed. The principle we have adopted before in trying to understand $\Psi\gamma$ and $\Psi\kappa$ processes is that of supposing that they also occur normally, as relations of ψ to the organism. Their paranormal occurrence we have regarded as cases in which the processes are no longer limited to the organism. In other words, we have supposed that *any Shin relation to the organism is a special case of a Ψ process*. To try to explain a Ψ process we consider whether there is a known Shin relation to the organism which may be a special case of it.

Applying this method of thought to the phenomena of materialisation, we are led to consider that this may be the more general process of which the normal processes of bodily growth and regeneration are a special case. In other words, materialisation phenomena may be regarded as relatively unfamiliar examples of the process whose normal and familiar form is to be found in the growth of the organism or the healing of a wound. The theory that growth and regeneration are processes of Shin acting on the organism is, of course, Driesch's theory of the *entelechy*. This theory has been generally rejected by physiologists and biologists who have preferred to regard growth and regeneration as processes entirely determined in a material manner by physico-chemical forces within the organism itself. The occurrence of exo-somatic form-producing activities (*i.e.* materialisations) suggests the possibility that this orthodox materialist view of growth and regeneration may not be a complete account of the matter.

¹ Or the more extensive evidence of the wax moulds obtained by Geley from materialisations produced by Franek Kluski [19].

It is possible that the form-producing activity of Shin should be regarded as the same process as $\Psi\kappa$. Provisionally, however, we prefer to treat it as a separate Ψ process and to label it $\Psi\epsilon$ (psi-epsilon).

We have already considered the possibility that some cases of telepathy are examples of Shin A acting by $\Psi\kappa$ on the motor nervous system of B . There is a parallel possibility that Shin A may act by $\Psi\epsilon$ on the structures of the organism of B . Thus the organic injury of B might be repaired by processes initiated by the activity of Shin A . That this can take place is, of course, claimed by many people with high Ψ capacities; it is the process commonly known as "psychic healing". It has become usual for scientific psychology to dismiss all psychic healing as the healing of functional disorders by means of suggestion. That is, it is regarded as an action by the healer through normal sensory means on the nervous system of the healed person and the removal from the patient of symptoms which have been created by his own thought, that is, by the activity of his own nervous system.

The opinion that psychic healing is merely the cure by suggestion of functional disorders is not, however, accepted by religious or other psychic healers and there is some reason for doubting whether it can be supported without some arbitrary selection of the evidence. The hypothesis here outlined would explain psychic healing in a way different from that of the suggestion theory, as the $\Psi\epsilon$ action of one Shin facilitating a healing process in the organism of another. In other words, it would be a healing process of the same kind as that normally taking place in the body under the trophic influence of the central or autonomic nervous systems except that the direction of the process would be from outside instead of from inside the individual. This hypothesis does not, of course, imply an unlimited power of psychic healing but it does imply different limits from those of healing by suggestion.

First, healing by suggestion is limited to cases where the patient is aware by normal sensory means (generally by hearing) of the healing suggestions made; it cannot succeed if the patient is unconscious or is unaware of what the person making the suggestions is doing. There is no reason for expecting psychic healing to be limited in this way if it is a $\Psi\epsilon$ activity from another Shin. It might well be successful when the patient was not aware of the healer's intentions or even when he was unconscious.

Secondly, healing by suggestion is generally supposed to be limited to disorders of a psycho-neurotic type, *i.e.* those caused by the thought, expectation, or unconscious volition of the patient. On our hypothesis, psychic healing should not be expected to be limited in this way. The limitation to be expected is that psychic healing would be limited to processes in another organism which are, in one's own organism, under Shin control—*i.e.* not irreversible degenerative processes or injuries but those which under favourable conditions may heal spontaneously. The union of a broken bone might, for example, be accelerated by psychic healing, but it could not be expected to have any influence on a lesion of the brain since there are no true regenerative processes in injured brain tissue.

A further limitation to be expected in psychic healing is that it is likely to be dependent on the healed person being in some way picked out or "singularised" by the healer. In practice, this singularisation is generally effected by the healer placing his hands on the person to be healed, but it is

also claimed by some psychic healers that merely thinking of the person to be healed is sufficient.

What has been said above about Shin influence in regenerative or formative bodily processes may be supposed also to apply to degenerative processes initiated by Shin, such as the formation of stigmata. It is possible that these also might be produced in one organism by the $\Psi\epsilon$ activity of another Shin. We should then have a "paranormal" production of degenerative processes such as has been attributed in the past to certain practices of black magic. Of such $\Psi\epsilon$ effects (except for minor lesions), we know of no contemporary evidence, although, if the possibility of psychic healing is admitted, there seems no reason for regarding a parallel production of degenerative effects as impossible. It does not, however, seem necessary to discuss these further since the theoretical problems involved would not differ from those of regenerative processes.

To summarise the views here put forward. We have suggested parallel hypotheses relating: (a) paranormal cognition with normal perception, (b) psycho-kinesis with normal volitional activity, and (c) materialisation and psychic healing with normal growth and regeneration. In each case we have supposed that these are processes depending on a non-material entity which we have indicated by the symbol Ψ (Shin). The functions of Shin involved we have labelled $\Psi\gamma$, $\Psi\kappa$, and $\Psi\epsilon$ respectively. We have postulated that these normally relate Shin with its own bodily organism (*i.e.* that normally they are endo-somatic) but that also they occur exceptionally in their "paranormal" forms acting exo-somatically.

It is obvious that these three hypotheses are logically not mutually dependent; the truth of any of them does not entail the truth of any of the others. The relation between them is that all suggest the same general form of explanation. In each case we are trying to fit the pieces of the jigsaw together in the same way, the way suggested by the very plausible idea that perhaps the paranormal processes are not as odd as at first sight they appear but are familiar processes occurring in unusual circumstances. In each case, we have supposed that the "normal" process is a special case of the more general process which includes the "paranormal" form of the process, just as, for example, plane geometry is a special case of the more general propositions of solid geometry, or as the Newtonian laws of motion are a special case of relativity laws of motion.

This view obviously implies that E.S.P. and P.K. are closely related processes, both being, as it were, occasional discharges into the outside world of processes normally taking place between Shin and the nervous system. The implied relationship has in its favour the evidence of parallelism between these two classes of phenomena. Thus Rhine speaks of: "a large accumulation of experimental evidence which has given us much the same picture of the conditions affecting performance in P.K. tests as it has for success in E.S.P. experiments. Psychological, physiological, and social influences have had similar effects upon both types of ability. Position effects are much alike for both, and both are essentially unconscious functions. The general experimental results have thus made it easy for the logical interrelation represented by a common name to find acceptance" [14]. To a common name we now suggest the addition of a common hypothesis of origin.

The suggested relationship between clairvoyance and telepathy is closer since our suggestion implies that one form of telepathy (γ -telepathy) is identical with clairvoyance, except for the difference that the $\Psi\gamma$ process is directed towards the nervous system of another person in the one case and towards some other external object in the other.

If this suggestion be true, it explains the early observation of Rhine that those subjects who were good in telepathy tests were also good in clairvoyance tests to about the same degree [15]. It is true that what he then called "telepathy" and "clairvoyance" tests would not now be regarded as satisfactory tests for pure telepathy and pure clairvoyance since the "telepathy" tests did not exclude the possibility of precognitive clairvoyance and the "clairvoyance" tests did not exclude the possibility of precognitive telepathy. On the other hand, the telepathy tests did exclude the possibility of straight (*i.e.* present time) clairvoyance and the clairvoyance tests excluded straight telepathy. The fact that these two exclusions did not have any apparent differential effect on subjects' performances strongly suggests that, if the two conditions excluded were effective at all in favouring successful results (which later successes under "pure clairvoyance" conditions make it impossible to doubt), then they must have been about equally effective in producing successful results. This suggests that the processes involved under these two conditions were essentially the same, as is supposed by our hypothesis.

It should be apparent that there is nothing novel in the suggestion that there is some entity which controls the organism in volition and which is informed by the organism in perceptual processes. This was universally believed until comparatively recent times when the idea of a soul or self was discarded by the physiologists and experimental psychologists, and all mental processes, including those of volition and cognition, came to be regarded as merely aspects of the material processes of the organism. Indeed, so late as the middle of the nineteenth century, Braid could write: "I look upon the brain simply as the *organ* of the mind" and could equate the relation of the "soul and the bodily organs" to that of the musician to his musical instrument [11]. This way of thinking, which sounds old-fashioned to those whose minds are attuned to current psychological and physiological conceptions, was the scientific orthodoxy of a century ago. In this matter, we are only suggesting a return to a way of thinking which was at one time generally accepted.

There is no such venerable ancestry for the other part of our hypothesis that extra-sensory perception, psycho-kinesis, and materialisation are exosomatic examples of processes familiar to us in their endo-somatic forms as normal perception, normal volition, and normal growth processes respectively. Indeed such a hypothesis could not have been formulated until, in comparatively recent times, psychical research had demonstrated the reality of these "paranormal" processes.

Once this reality has been demonstrated, the formulation of the hypothesis is an obvious step if we can overcome the barrier of the way of thinking which regards the "mind" or "soul" as a mere aspect of organic processes. In 1943, Rhine and Pratt suggested in an Editorial in the *Journal of Parapsychology* that psycho-kinesis was the process by which the

mind acted on the body [12].¹ While doubting the appropriateness of the word "mind" in this connection, for reasons already discussed, we recognise that this is essentially the same view as our suggestion that psychokinesis is an exo-somatic form of the same Ψ_K process as that which controls the organism in normal volition. The same idea with respect to the Ψ_K explanation of hypnotic phenomena was clearly suggested by F. W. H. Myers in 1886 when he wrote "perhaps when I *attend* to a thing, or *will* a thing, I am directing upon my own nervous system actually that same force which, when I direct it on another man's nervous system, is the 'vital influence' of mesmerists, or the 'telepathic impact' of which Mr Gurney and I have said so much" [17]. A parallel idea to that in our suggestion with respect to Ψ_ϵ was put forward by Driesch who referred to materialisation as "a supernormal embryology" [13]. We have not, so far, met with any previous suggestion that normal sensory perception is the relation that the mind or soul has by means of Ψ_γ with what is going on in the sensory part of the nervous system of the organism. That also may, however, have been suggested by other psychical researchers before now.

A further consequence of the views sketched here is that we become doubtful of the appropriateness of the implications of the word "paranormal" for such facts as E.S.P. and P.K. We are suggesting that they are examples of processes which are themselves normal and indeed familiar, but occurring in other than the familiar situation. They may be no more "paranormal" than the facts following from Einstein's theory of relativity. Physicists do not regard the Newtonian laws of motion as "normal" and those motion and gravitation effects which follow the principles of relativity as paranormal; they regard the Newtonian principles as a special case of a more general set of principles which includes also the relativity phenomena. This special case happens to be more familiar than the exceptions to it because most observable phenomena of movement occur within the limits of velocity for which Newtonian principles are approximately true. If we had been born in a universe in which all velocities of bodies were near that of light, then the Einstein laws would have been the familiar ones.

Similarly most facts of cognition and volition occur under the limiting condition that the Ψ inter-action between Shin and the material world is restricted to that part of the material world which is the nervous system of the organism. This limitation also may be an accidental circumstance of the world in which we live. We might have lived in a world in which the Ψ action of Shin was not commonly so limited. Then what we now call "paranormal" cognition and "paranormal" movements of objects would be as familiar as they are now uncommon. If the means of interaction between Shin and the material world is, as we have suggested, the same for its endo-somatic forms, the contrast between these is between processes that are usual and those that are unusual, not between those that are normal and those that are in any sense not-normal.

Oct. 12th, 1947

¹ This may also have been in the mind of Barrett when he wrote in 1886: "*mind, occasionally and unconsciously, can exert a direct influence upon lifeless matter. Upon the living organised matter of the brain mind can and does act, i.e. if we admit mind apart from matter*" [16].

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PLATE IV



W. WHATELY CARINGTON

OBITUARY : MR W. WHATELY CARINGTON, M.Sc.

The President, Mr W. H. Salter, writes as follows :

IN the middle of the First World War there joined the Society a young man, whose science studies at Cambridge had been interrupted by Army Service. Mr Whately Smith (as he was then called) was destined during the succeeding thirty years to be one of the leading figures in our Society, distinguished by his originality in introducing methods new to psychical research, his ingenuity and pertinacity in applying them, and the lively skill with which he presented his results.

During the first few years he was content to follow well-beaten trails. In December 1916 he had a sitting with Kathleen Goligher in Belfast, and in *Proceedings* vol XXX he described the sitting, and at the same time reviewed the Goligher phenomena as a whole, summing up in favour of their genuineness. In 1920 he was a member of the S.P.R. committee, which investigated "Eva C." on her visit to London that year and reported cautiously—most cautiously—in her favour. In the same year he published *The Foundations of Spiritualism*, a small book containing an admirable summary of the evidence for survival, as it then stood. In it he shows a thorough understanding of what may be called the traditional work of the Society. He was, however, soon after to break with tradition, and launch out on lines of his own planning.

It was the freshness of his approach to old problems that must have struck everyone who first met him soon after his return to Kings. There is nothing more attractive than a young, tall, good-looking intellectual, witty, widely read and desperately keen on his chosen task. Science and psychical research divided between them his main intellectual interest. The relations between them were not as cordial and intimate as he thought they should be, and he made it one of his main objects to place them on a better footing.

There were, he recognised, faults on both sides. The materialist bias of many scientists was repugnant to his philosophy, and his book *The Death of Materialism* (1933) was written to combat it.

It is clear, however, that he considered the main fault to lie on the side of psychical research. The Society, when he joined it, had been in existence for thirty-four years, long enough for nearly the whole generation that saw its birth to have passed away, and long enough, in many institutions, for the process of fossilisation to have become well-advanced. As to some time-honoured branches of psychical research he thought this had already taken place, and he was at no pains to conceal his opinion that the collection of spontaneous cases, and qualitative experiments in telepathy, however useful as pioneer work in the "eighties," offered no promise of progress. The great contributions which Myers and Gurney had made to the medical psychology of their generation seemed to have little bearing on the doctrines of Freud and Jung, which were then gaining publicity in this country. He was not unaware that the Society had in its studies of automatic writing struck out a new line of research, but though, as he showed in *The Founda-*

tions of *Spiritualism*, he was familiar with this work and its implications, it did not seem to him a work likely to convince, or even attract, men of science. The Society, he urged, ought to make more use of quantitative methods familiar to the scientist, in combination with recent developments in psychological technique. This led him, as early as 1921, to suggest as a "New method of research" (*Proc.* XXXI) the application of the word-association test, to the investigation of the psychological status of mediumistic Controls, as it had already been applied by American psychologists to one case of abnormal secondary personality. It was not, however, till some years later that it was found possible to apply the method to three mediums, Mrs Leonard, Mrs Garrett and Rudi Schneider, and their Controls. In a series of later investigations the same method was applied to several communicators. The results were set out in a series of papers in *Proceedings*, entitled "The Quantitative Study of Trance Personalities" (Q.S.T.P.) from 1934 on. The difficulties of interpreting the figures aroused much controversy, but the method of analysis strongly suggests that in some instances at least Controls are secondary personalities of the medium produced by repression. This was an important result, in itself, but the uncertainty of interpretation attaching to most of the data of this very elaborate investigation was a disappointment.

In 1933 Mr Whately Smith resumed the family name of Carington, under which his later work is to be found indexed in our *Proceedings* and *Journal*.

It was a belief firmly held by him that the Society would make more progress if it attempted fewer tasks at one time. He had for long been interested in the implications of telepathy (see *Journal* XXVIII, 57), and was anxious that the Society should concentrate its energies on demonstrating telepathy to the scientist by methods the scientist would recognise as cogent. With this in view, as soon as the labours of Q.S.T.P. began to ease off, he worked out a technique of repeatable, quantitative experiment. This required the collaboration of a representative group or groups of percipients. It was not the least of Carington's merits as a psychical researcher that he was able to inspire others with his own keenness, so that the necessary groups were not lacking. Important data were obtained, but the experimental side of the work was interrupted by the outbreak of war. This did not, however, interfere with Carington's analysis of the data already obtained.

His work on telepathy is too recent and too well known to need description here. Mention may, however, be made of two matters which illustrate his qualities as an investigator and as a man. He was very generous in passing on to other persons conducting research on similar lines points arising in his own work which struck him as likely to be of interest to them: the phenomenon of "displacement", for example. He was, again, most anxious that his readers should have every opportunity of following not only his results, but the reasoning by which he arrived at them, and he sometimes credited his readers with an ability to master involved statistical argument which they were far from possessing. His book on *Telepathy* gained immediate recognition as an outstanding contribution to the theory of the subject.

He was the fortunate possessor of an extremely lively style. Quantitative

work inevitably tends to aridity, but Carington's reader is constantly refreshed by passages of keen, sometimes pungent, wit and apt illustration. These qualities appear in all his numerous writings, which in this respect conform to the best traditions of S.P.R. literature.

Carington was a believer in survival of some kind, while having, he confessed, a strong repugnance to "Spiritualism" as frequently expounded. He did not think that the problem could be usefully debated until various philosophical difficulties had been cleared up. This was the task on which he was engaged at the time of his death, but he left unfinished the book that was intended to embody his solution. May we hope that it will be completed and brought to publication by some other hand?

From his schooldays on everyone who knew Carington was struck by the thoroughness and pertinacity with which he carried out any work he undertook. Without these qualities he could never have accomplished what he did in the face of obstacles. First of these must be mentioned his health, which compelled him to live abroad for considerable periods. It is a mark of the high regard that the Council had for his work that he was retained as a member both of the Council and of the Committee of Reference and was chosen as Myers Memorial Lecturer, during his long residence out of the country. None the less, the lack of close personal contact with colleagues during these years and still more during the war raised difficulties which were not wholly met by the fullness with which he was prepared to discuss in correspondence matters relating to psychical research.

Life abroad was congenial to him, and exclusion from it as the result of the war would have depressed him, even if the alternative had not been the discomforts of a small Cornish cottage, which nothing could have made tolerable but the housewifely skill and devotion of Mrs Carington. For his finances were not such as to permit him those amenities which the intellectual worker highly values.

Dr. Thouless, who was brought into close contact with his experimental work, writes as follows:

After the war of 1914, Whately Carington returned to Cambridge to do research on the psycho-galvanic reflex; his book *The Measurement of Emotion* (Kegan Paul) was based on this work. His main interest was not, however, in the reflex itself but in the possibility of using it as a means of studying trance personalities. While doing this work at Cambridge, he had already devised the plan of the method by which he hoped to find out whether the spirits which communicated through mediums were genuine autonomous personalities, and also whether the controls were autonomous personalities or merely dissociated parts of the medium's own personality. This work was completed many years later and published in the *Proceedings* as a series of articles on "The Quantitative Study of Trance Personalities". This was a brilliantly designed experimental plan which well displayed Whately Carington's gifts of boldness and originality. In its main purpose the plan miscarried since critical analysis of his figures showed that he was mistaken in believing that they showed evidence that "spirits" were autonomous personalities. There were, however, clear indications of the truth of the hypothesis that the controls were dissociated parts of the medium's personality.

After a not very successful set of experiments on precognition in dice throwing, Whately Carington started work on the paranormal cognition of drawings (also published as a series of articles in the *Proceedings*). Early in this work he suspected that the straightforward methods of marking success were vitiated by the subjects being paranormally influenced by the drawings exposed on nights before that on which they made their reproduction and also by those to be exposed on succeeding nights. The correctness of this surmise was amply confirmed and his discovery of the fact of temporal displacement in experiments on paranormal cognition is the principal new fruit of this research. During recent years, he had been engaged in work on psycho-kinesis with the same energy and enthusiasm. The results of these investigations have not yet been published.

In his attitude towards quantitative experimental work Whately Carington challenged tradition and showed himself a progressive. He was not interested in the mere repetition of standard experiments already performed by other people in the hope of accumulating an ever increasing weight of evidence of the same kind. He regarded quantitative experimental investigation as primarily a means of making discoveries about the nature of psychical phenomena and not merely of proving that they exist. This function of quantitative experiment is commonplace in other branches of the biological sciences although it has been little employed in psychical research. When Whately Carington repeated his own experiments, his object was not merely to accumulate proof but to obtain data the analysis of which would reveal something of the laws underlying psychical phenomena. He may sometimes have overestimated the revealing power of statistical analysis but he never doubted that the function of quantitative experimentation was to find explanations and not merely to increase the weight of evidence.

The two most obvious characteristics of Whately Carington as an experimenter were his industry and his boldness. Both sometimes led him astray. His industry sometimes led him to embark on an elaborate mass of calculations with only a trivial end in view; his boldness sometimes led him to try to extract significance from mere accidental peculiarities of his figures. But these were also gifts which made him a fruitful experimenter. His boldness led him to explore possibilities that a more cautious enquirer would have ignored, and his industry led him to examine them with a thoroughness that extracted the last grain of information from them. These explorations did not always lead to fruitful results and he was from time to time misled by over-confidence in his conclusions, but they did succeed often enough to justify his departure from the beaten track of conventional experimentation. He might often go along a cul-de-sac with the confidence that others would feel only when their feet were on the high road, but his justification was that sometimes what appeared to be a cul-de-sac turned out to be really a path to something new.

We are indebted to Mr. Fraser Nicol for the following personal appreciation:

My tale was heard, and yet it was not told ;
My fruit is fallen, and yet my leaves are green ;
My youth is spent, and yet I am not old ;
I saw the world, and yet I was not seen ;

My thread is cut, and yet it is not spun ;
And now I live, and now my life is done.

TICHBOURNE, *On the Eve of Death*, 1586

WHATELY CARINGTON once described himself as " a member of the smallest profession in the world—the Profession of Psychical Research." He went on to remark (surprised a little by his own reflections) that there were only half a dozen men whose only occupation and main means of livelihood was psychical investigation. I remember the occasion well, for it was the first time I had met him. He gazed into space in that curiously abstracted way of his, and began to reel off the names on the roll of the Profession. At each name he bent a finger, and having disposed of the whole of one hand he paused searching his mind for the sixth and last name. For a time it could not be found ; then with a sudden smile of enlightenment he exclaimed, " Of course—*myself!*" This momentary forgetfulness of self was the cause of some surprise to him, for he was presently confessing himself to be " beastly egocentric ". A disarming candour was one of Carington's most attractive characteristics.

As a man he could be fitted into no known pattern or category. In his greatness (and those who knew him well will scarcely question that he had the stuff of greatness in him) and in his limitations he was unique of his kind. He could always be depended upon to do the unusual and unexpected thing. The occasion mentioned above was the culmination of a long, and on one side at least, a lively correspondence, in the course of which I had invited him to visit me in Scotland. Nothing came of this proposal for many months—I cannot remember that he even acknowledged it, such was the man absorbed in other things—until one summer evening the telephone rang and a distant voice announced itself as that of Whately Carington speaking from Amsterdam Airport. He badly needed a change, he said, and (hesitantly) might he be allowed to arrive next morning?

So, the following forenoon, he stood on the doorstep, smiling with a curious shyness. He was immensely tall, somewhere over six feet two inches in height, and like many very tall men, slightly stooped. His eyes were pale blue-grey and looked with a gentle penetrating gaze through thick glasses, and his fair hair crowned a head which seemed proportionately greater than his body. He was then about forty years of age, but even at that time the complexities and strains of life had aged him beyond his years.

With him he brought all he found necessary to pursue (on holiday) the daily work of psychical research—a massive and burdensome electrical calculating machine, and an outside in suitcases which he was soon disgorging of the greater part of its contents—files of mediumship data, stationery, books and—an ashtray which accompanied him on all his travels.

He was born Walter Whately Smith, but in later life reverted to the old family name of Carington, derived from Carentan in Brittany, the original home of the family. Looking back on his life he could not remember a time, even in early childhood, when his disposition was not shy and painfully sensitive. Those difficulties never left him, and he attributed some of the distress they caused him to early ethical teachings which were de-

rived more from the rigorous outlook of the Old Testament than the comparative gentleness of the New.

His days at Eton and Cambridge were memorable mainly—and almost exclusively—for the rapturous delights of Science. Sport, in most of its forms, interested him not at all: he had no competitive instinct. In science he had all the physical and intellectual endowments that go to make a great experimentalist and thinker—an enquiring cast of mind, acute powers of observation, intelligence that was both analytic and constructive, a pair of clever and sensitive hands, and not least a spirit of adventure tempered by a shrewd caution. In any piece of work undertaken by him his thoroughness was extraordinary.

In the latter part of the first world war he served in the Royal Air Force and took some pride in having piloted twenty-nine types of aircraft. He was involved, however, in a perilous and unnerving forced landing on the Channel coast which seriously disturbed his health. Illnesses thereafter interrupted the course of his work.

It was during that war that his interest was drawn to psychical research by some experiences with mediums narrated to him by a relative. Soon afterwards, December 1916, he had the first of several sittings with Mrs Osborne Leonard. As he wrote long afterwards, he was then “a wholly obscure convalescent subaltern, unconnected in any public way with spiritualism or psychical research and only beginning to take a rather diletante interest in them.” The striking evidence offered by Feda (supported and strengthened by encyclopaedic reading of the literature thereafter) was sufficient to destroy the apologetic diletantism.

From that time forth—and although for a period after the war he was engaged in psychological research at Cambridge and spent some years in acoustical research with special reference to psychological problems, for the Air Ministry and War Office—it may be said that the strongest urge of his life was to explore and, if possible, to solve some of the most resistant problems of the invisible world.

He made two journeys to Belfast to examine the telekinetic mediumship of Kathleen Goligher. On the first occasion he was convinced—and never afterwards changed his opinion—that the phenomena *at that time* were genuine. But four years later (his second visit) he found a “conspicuous and startling deterioration” and he concluded that the mediumship had become fraudulent. In 1920 he was a member of the S.P.R. Committee which investigated the materialising medium Eva C., with inconclusive results.

Many years later I tried to attract his interest to physical mediumship, but he was not to be drawn. You try scores of experiments with a medium, he said in effect, and at the end of it all you do not know even whether you have been testing a medium or merely a clever conjuror. He believed that progress in psychical research was most likely to come “at the present stage of our knowledge” from the study of comparatively simple things like telepathy, clairvoyance and precognition. Nevertheless he showed great interest in the telekinetic mediumship of Rudi Schneider when he saw that the phenomena had a close bearing upon his own work in psychokinesis.

In the early nineteen-twenties his literary output was considerable. In

1920, when he was in his twenty-eighth year, he published *A Theory of the Mechanism of Survival* and *The Foundations of Spiritualism*. The latter consisted for the most part of a summary of the evidence favourable to the survival hypothesis together with a note on his own views at that date. Briefly, his opinion was :

The experimental evidence for Survival and Communication with the deceased is distinctly good, and shows a tendency to become increasingly so. But it is very difficult to set a limit to the potentialities of the incarnate mind, and it would be rash to assess the chance of the "spiritistic" hypothesis at a value appreciably greater than one half.

In later years he came gradually to the view that some part of the personality survives death.

The other book was more important and showed some of Carington's qualities as a speculative thinker. For purposes of discussion he assumed that consciousness survives physical death and proceeded to construct a theory of Four-dimensional Space which would, he considered, go some way towards explaining the mechanism of survival and also some of the phenomena of sleep, trance, anaesthesia and other forms of insensibility. The book seems to have attracted little attention—it was not reviewed in our *Proceedings* or *Journal*. In the course of years the theory underwent a gradual modification at his own hands, due in part to a growing interest in modern conceptions of Non-Euclidean Space. Those revised theories and views would have found their place in a large-scale work on *Survival* which was under consideration—and a small part of it written—at the time of his death. (Here, as in other matters of authorship and research, "his thread was cut, and yet it was not spun".)

The year 1920 was a period of intense activity. He produced the two books already mentioned ; in April he was co-opted a member of Council ; in July he issued the first number of *The Psychic Research Quarterly* ; he was engaged also in psychological research at Cambridge ; and the idea was germinating in his mind for the future "Quantitative Study of Trance Personalities". If high quality of contents could have ensured success the *Quarterly* would still be in existence today ; in fact after a year it was found necessary to reconstitute it as *Psyche*, "a quarterly review of psychology in relation to education, psycho-analysis . . . psychical research etc.", Carington continuing as editor of the re-fashioned review for some years.

So far as his activities as an investigator are concerned—as distinct from his work as a contemplative thinker—Carington will best be remembered hereafter for his ingenious and vast application of quantitative methods to psychical phenomena. His first use of mathematical methods of assessment goes back to the early nineteen-twenties when he was employing, in Dr William Brown's words, "highly original" methods in the investigation of emotion and affective tone in his Cambridge experiments with the psycho-galvanic reflex mechanism. Some ninety subjects were tested in this way and more than 45,000 observations were made. The results of those studies were described in *The Measurement of Emotion*. About the same time he was proposing the use of the same procedures as "an entirely new line of attack" for the investigation of the psychological status of the "Controls" of mediumistic trance.

A dozen years were to pass before he was able to put the project into action. Carington's cogitations on the state of survival research at this time (*ca.* 1933) were gloomy. The Society for Psychical Research had been in existence for half a century. In its early days there appeared to have been an expectation amongst its membership that some great new scientific truth was about to burst upon the world. The Society had now published some seventy volumes, a large proportion of whose pages contained evidence bearing upon the survival problem. But the world was no nearer accepting the great new truth (if truth it were) than ever it had been.

By this time Carington had come very cautiously to the opinion that the survival hypothesis offered the most economical explanation of the published mediumistic evidence. He was quick to add, however, that that was no more than a personal *opinion*. It was a judicial judgement and as such was a long way from being a scientific truth. He considered that so long as "witness-box" methods (as in the examination and study of ostensible communicators) continued to be used as the main instrument of research, there was little prospect of bringing the matter to a critical issue.

He had no illusions as to the long and hard road that lay ahead for psychical researchers, but he firmly believed that the pace of their journey might be quickened by the adoption and exploitation of new methods. These methods were the instrumental methods of scientific men, the results being assessed by mathematics. But it had to be made clear that "Outside of pure mathematics and other organised symbol systems there can be no such thing as absolute proof, but only the establishing of a greater or smaller probability." It was likely, he thought, that a long time would elapse before the demonstrable probability of survival would reach so overwhelming a value as to be universally coercive.

Discarding the old "judicial" methods of attack, he called in the procedures of the laboratory. This was his "Quantitative Study of Trance Personalities". It occupied almost the whole of his daily life for five years. Four reports were issued between the years 1934 and 1939. It is scarcely possible to give an adequate summary of the work in a short space; the reader may be referred to Carington's own published accounts, or to Dr Thouless's very lucid and valuable review of the first three reports, printed in *Proceedings* vol. 44. The general method employed was that of the Word Association Test of Jung, use being made of the Psycho-galvanic Reflex mechanism, the Reaction Time, and Disturbances in Reproduction. Those techniques were applied to four mediums (in their normal state)—Mrs Leonard, Mrs Garrett, Mrs Sharplin and Herr Rudi Schneider—to their trance Controls, and to the ostensible spirit Communicators. By such means Carington hoped to show whether the Controls and Spirits were independent of the mediums.

On only one point was he able to come to any firm conclusion—that the so-called Controls were secondary personalities of the mediums. As for the question of the autonomy of Communicators no certain answer could be returned—the statistical assessment did not permit of a plain yes or no reply. It appeared to Carington, however, that there was on the whole good reason to suspect the operation of some "non-medium" factor and that therefore the case for the independence of the communicators was strengthened.

Whately Carington was a pioneer. Never for him the well-worn paths nor the well-trying methods of approach. And as an audacious pioneer he encountered all the difficulties and suffered all the disappointments attendant on pioneering work. Shortly before the investigation began he had almost no knowledge of modern statistics. He set himself to learn—out of intolerably difficult books—and the wonder was that he learned so much. When the books did not supply a valid method, Professor Fisher and Mr W. L. Stevens could be depended on to elucidate difficulties.

Almost any other man would have realised early on that the work was too much for one mind and one pair of hands, and would probably have cut it short on the not unreasonable excuse that the problems he had set were impossible of solution. But Carington had unlimited powers of perseverance.

Physically alone, the work was a serious strain. To begin with he worked many thousands of calculations on a little hand-operated calculating machine, which caused an affection of his elbow. The Society's Council came to his aid with a magnificent electrically-driven calculating machine which greatly eased the labour and speeded up the work. "It does more work in a day," he wrote with exultant exaggeration, "than any six men could do in a month—and more accurately!"

But even so, the anxieties were not removed. His health was in an indifferent state, and he was living in Holland at a village on the edge of the Zuyder Zee, and subsisting on an income of £120 a year. The Society came to his assistance with a grant (the first of a number of grants) which alleviated his situation but at the same time intensified his fears—the haunting fear that after all the award might be wasted on work which in the end would produce no conclusive result. His extreme conscientiousness only added to his distress and may have contributed to the steady undermining of his health. At one period he was writing of "an indescribably purgatorial time," of "mistake after mistake" being found; and again, "I have never had such a struggle in my life as with this work. The drudgery alone, of which, I suppose not more than a fifth part is even suggested by the final product, was formidable . . . I won't write more or I shall start telling you all about how tiresome everything is . . . If one insists on grossly overworking for five months one must not be surprised at breaking down . . . (But) Phoenix is my middle name and I'm not (unfortunately I sometimes feel) dead yet; though I have no reason to suppose that the next life will show any improvement on this."

During an interval in the trance-personality work he conducted some exploratory experiments in Precognition. He recruited some forty subjects whose task it was to forecast the fall of dice. The investigation was of a very tentative nature, and the experience gained proved of great value when he later conducted his very important research in the Paranormal Cognition of Drawings. It was in the course of the dice-work that the idea of the Displacement Effect first occurred to him, and a hint of it is given in the *Journal* of June 1935, where he compared each guess—there were 51,240 guesses in all—not only with the throw for which it was intended but with the next and also with the next but one.

The results of the experiments were suggestive rather than significant, and they formed another example of Carington's vast and laborious spade-

work in previously unexplored fields. He would often say, with amused self-depreciation that he "tried all the wrong ways first". I do not think that in so doing it ever occurred to him how much he was preserving later workers from the innumerable pitfalls that beset his pioneering labours.

In the spring of 1938 Carington was married to a German lady, Hedda Enders. The circumstances were such as are not usually associated with such ceremonies—though they do not appear surprising against the background of pre-war Germany. They had known each other for some years, and in recent times Hedda Enders had suffered the grim experience of being jailed and put through the third degree by the German Secret Police. Carington's moral and physical courage never showed itself better than at this time. He entered Germany in order to effect an escape and was well aware of the risks he was running. He thought it would be advisable to leave a "life-line" open to this country, and this precaution took the form of a simple but ingenious code based on the way he wrote the date on his letters—2. i. 38 as compared with 2 January 38 and so on—each form of writing having its particular meaning. He laughed at this sort of arrangement as being "melodramatic". Anyhow it was a frightening experience.

Plans for the crossing of the frontier were laid in Frankfurt-am-Main by Carington, his wife-to-be and the husband of one of her friends. Carington then lay low in Berlin, living in a room near the Potsdammerplatz, until the plans matured. What he saw and heard in Berlin during those weeks made him (who had previously shown little interest in politics) a savagely angry enemy of National Socialism for the rest of his days.

As for himself, in Berlin, "The mere fact that one did not know [whether the secret had been uncovered by the authorities] was very wearing—or so I found. For weeks I was scared stiff whenever I heard a male voice in the flat (*e.g.* telephone inspector, gas merchant, postman) fearing that it might be a Secret Police agent come to interrogate or arrest. And, of course, at one time I thought there was a distinct possibility of war and being cut off in hostile country."

Mrs Carington was eventually got across the frontier by a mountain pass into Czechoslovakia, a journey greatly facilitated by the knowledge and guidance of her family friend. The latter turned back at the frontier; the Caringtons were married in Prague the same day. Mrs Carington's friend perished in a concentration camp during the war.

The years following this marriage were the most fortunate in Whately Carington's life, and they also formed his most abundant period as a psychical research worker. If Carington was the restless worker and writer, his wife was the adviser, critic and collaborator. On at least one occasion—in the Paranormal Cognition of Drawings—she was the originator of an impressive piece of research.

At first they lived in Cambridge, but in 1940 moved to Cornwall. Carington's health rapidly improved, and for a year or two he felt himself stronger and his mind more at rest than at any time since he was young. A holiday spent in the south of France just before the war had also done him a power of good. Years afterwards he used to look back, with a painful longing, on one particularly memorable day of that holiday. It was spent on a quiet, sunny beach, and—"I hadn't a care or thought in the world . . . It was the only completely happy day of my life."

Their little cottage stood at the end of Sennen Cove, a stone's throw from Land's End. There was a cold water supply and electric light (part of which Carington had fitted up); there were no other of the ordinary requirements of civilisation, but somehow the place had been made comfortable, and Mrs Carington's garden in summer was a delight.

Here Whately Carington passed the last years of his life, and most of those years were spent in his study, which was a small, narrow room with, at one end, a tiny window that overlooked the Atlantic. He rarely looked out of the window, in my recollection—the passing show interested him not at all. (On the other hand, he followed with too much excitement the progress of the war.) On a vast ex-dining table pushed against the window-corner were all the tools of his labours—the calculating machine, typewriter, pens, rubber, multi-coloured inks, index cabinets containing summaries of thousands of calculations; and at one side of him, as he sat at his table, were well-thumbed sets of our own and other Societies' *Proceedings*. Round the walls and overflowing into his adjacent bedroom were row upon row of thick files—they must have numbered about 200—containing complete records of his work in past years.

He worked with extreme care and precision, and treated his data with a thoroughness that at times seemed more a failing than a virtue. He light-heartedly excused this on the ground that he was "a pathological perfectionist". Moreover, in psychical research it was a rare experience, he held, to get a straightforward "Yes" or "No" answer to a question; it was therefore necessary to drag out of the data every particle of information they could offer—if only as a signpost for further work and for future investigators. He felt that his elaborate statistical methods were fully justified by his discovery of the Displacement Effect in the Paranormal Cognition of Drawings.

To collaborate with Whately Carington was an education in how psychical research should be done. Nothing but the best one could do would satisfy him; and having done one's best he would then propose improvements. But if he imposed heavy demands on others he was no less severe on himself. His own criteria were summarised in his own words—"We must always remember that the methods of orthodox science are not necessarily good enough for psychical research." Without such rigorous standards he would probably never have been able to enlist the co-operation of the many university psychologists who collaborated with him in the PNC research.

But the rigorous methods had an account to render. The care taken of his health allowed him to write, in 1941, "I'm working harder and better than I have for years", but in the same letter, "I just can't keep abreast with what has to be done." From 1942 onwards he worked at an ever accelerating pace. It had been his custom to work eight hours a day—"like an honest working man". When this proved insufficient he stepped it up to ten hours, then to twelve, and sometimes until he fell asleep from exhaustion over his worktable. In his last years he began work about 7.30 in the morning, and never later than 8 o'clock.

He refreshed himself with endless cups of tea—a beverage which he described as his only remaining pleasure—poured from a half-gallon pot, which was replenished from time to time during the day. A short rest after

lunch, then he returned to further calculations, or to deal with his large correspondence, or to write more pages to whatever manuscript was in progress at the time. Most of his own experiments were carried out at night in collaboration with his wife.

The sense of urgency grew more intense each year. "Time is so short," he would exclaim. When advised to rest he retorted, "No, I must work and *I must work*, for the time cometh when no man shall work." The awards of the Perrott Studentship and later a Leverhulme Research Fellowship gave him deep pleasure. Perversely, those marks of recognition contributed to his worries, for his high sense of responsibility was always at the mercy of his nervous temperament, and the fear of failure (to fulfil his undertakings) was very real to him.

Yet it was in such circumstances that he produced two papers by which his name will be best remembered hereafter. The first was the highly technical paper called "Steps in the Development of a Repeatable Technique", (*Proc. A.S.P.R.* vol. 24). The construction of an experiment that would meet one of the prime requirements of all scientific work, namely one which could be repeated at any time with approximately similar results on each occasion, had long been Carington's aim in psychical research, and he considered that his Frequency-Catalogue invention fully met such requirements. He conceded to critics that the method would require amendment, but he felt that it was fundamentally sound. The preparation of the catalogue, which occupies some thirty pages of the report, entailed the re-examination of the work of 741 percipients and the individual examination of 10,006 drawings. The mere physical labour alone was monstrous, it occupied Carington for many months, and during the whole of this time his wife was seriously ill.

It would be a mistake to think of him as always borne down by duty and anxiety. He had periods of gaiety when his infectious laughter would involve the whole company. He was not a great talker—the reading of a paper at the S.P.R. was invariably an ordeal to him—but he was a witty and lively conversationalist. He had a genuine humour, for at times he would joke at his own misfortunes. He was the perfect host, for in him "the desire to please" had no known limits.

The conception and development of the Association Theory of Psychical Phenomena was the cause of much lively correspondence. (The theory was set forth in *Proc.* vol. 47, and forms the second of the two papers mentioned above.) One was forewarned to look out for the draft of a paper, "in which I propose to plunge into theory feet first with a loud splash, and try to produce one which is applicable not only to PNC but (in outline) to practically the whole range of psychic phenomena." The paper was duly received, and was returned to him accompanied by some minor suggestions and a word of doubt about the "flippancy" of some of his paragraphs. To this he characteristically replied—"To a certain extent this kind of thing is natural to me; but also it is part of a deliberate policy of debunking, and of a refusal to be intimidated by pundits or by the profundities and awe-inspiringness of the subject. Unlike Kant, I refuse to be cowed either by the Immensity of the Starry Heavens or by the Moral Sense in Man. There ain't no moral sense in man that I can see—at least not as K meant it—and I see nothing reverential in being large, hot,

distant and unintelligent. An onion is much more interesting and important than a star . . . ”

Few men can have written so many letters enlivened with so much gusto. Often the words jump and dance on the page. Some of this vitality comes out in the best of his published works, especially *The Death of Materialism* (a gorgeous book, surely) and in *Telepathy*. Most of the latter was written at breakneck speed—sixty thousand words in three weeks. When he got the book off to the publisher he wrote, “Got book off yesterday after violent spurt, which approximately killed me.” He immediately flung himself with unrestrained intensity into further analysis of PNC drawings, and abruptly broke off a letter with the exclamation that something was “suddenly becoming *frightfully* exciting.” This was an examination of the scores of women as compared with men. Three days later there followed an apologetic postcard pleading, “You know how it is when some new finding beckons.” The feverish pace had always to be paid for, and a few weeks later he wrote—“I can neither work nor relax properly . . . I feel as if some super-vampire had sucked *all* my blood out and left me pallid and deflated, as an eviscerated flounder.”

Occasionally he would be persuaded to rest, perhaps for a week or so ; but the best form of relief he found was in “tinkering” old motor bicycles. One ancient machine he fitted with a four-cylinder engine, reconditioning every part with meticulous care, and eventually he drove it along the Cornish roads at 90 m.p.h. He found that working with his hands for a couple of hours every afternoon did him a lot of good.

It was once suggested to him that in order to moderate the strain of unceasing psychical research and also to improve his financial position, he might seriously consider engaging part of his time in some other form of occupation. During a walk round the cliffs near Land’s End he brought the matter up and said quite suddenly (and with apparent seriousness)—“I wonder if I could be a successful grocer.” It happened that I had lately heard of a distinguished poet who had in fact run a grocer’s shop. Carington had to be told all details (which were few) but at the story’s *dénouement* when the poet-grocer was declared insolvent for £1000, Carington stopped in his tracks in a state of uncontrollable mirth. He presently said something about the cobbler and his last, and with utter finality—“I will *not* be a grocer!”

It should, I think, be recorded here that the subject of this memoir was invited to offer himself as a candidate for a post of great distinction in a University. The invitation did not come from any quarter that might be described as “psychical research” but from the academic world. It is safe to say that no other proposal in his career had so deeply moving an effect as this. He thought about it a little, and reluctantly turned himself from it. On speaking of this soon afterwards he tried rather haltingly to educe reasons why so golden an opportunity was impossible to pursue. Some of his objections were not perhaps without substance, but for the most part they were excuses and rationalisations rather than strong reasons. The matter was soon closed. He glanced round his study, saying—“And what would happen to all this?” That was all that need be said, for “all this” was psychical research.

He shared the views of W. E. Gladstone that psychical research “is

the most important work which is being done in the world—by far the most important.” But Carington knew (what the statesman perhaps never suspected) that “psychical research is probably the most intricate subject with which the human intellect has ever grappled.” The intricacies might sometimes dismay him. His own discoveries might yield at times little more than an ever-expanding world of complexities to which there seemed no end; then he would feel himself “wobbling all the time on the edge of a nervous breakdown.” (And, “I wish to god I hadn’t so much to do.”) He might be shaken to the roots of his being by the discovery of “three months work wasted through a mistake.” (“Hell! I’d give a leg to be able to quit and rest for a year.”) He might feel—as he often did when working his hardest—“pretty lousy” and “finance very gloomy, though something may turn up”; but when he had achieved his nadir of frustration he would take refuge in self-mockery. “Pray for my soul, or modern equivalent” on one occasion, and on another, “Unless I get to some sort of stopping place in my present abominable labours first, I shall start having kittens in public.”

And yet how often he would exclaim with pride and self-assurance, “I am a man of incomparable psychological resilience.” Or how pleased he would be when work turned out better than expected, as at the close of the collaborative PK investigation, published after his death, “I seem to have got more out of it than, to be quite frank, I at one time thought was in it.”

For all the trials and the bitter disillusionments that the work sometimes imposed, it never seems to have occurred to him to turn his energies to other and more profitable scientific fields—though for such work he was superbly, lavishly endowed. Psychical research was his chosen calling—and was it not “the most important work . . . in the world?”

The last year of his life was on the whole the most contented and satisfying that he had known for many years. His book *Telepathy* had passed through three editions and was being translated into foreign languages, and he had two new books on the stocks. The long PNC work had drawn to a close, and its place had been taken by some fresh and exciting PK experiments initiated by Mrs Carington. Most important of all his wife’s health had improved greatly; and though his too-active mind would continue to deny him rest, still on the whole he felt more at ease—though often “tired”. He and his wife would enjoy travelling about Cornwall on their reconditioned motor-cycles.

He seldom walked about the countryside. His shyness was such that he feared contact with his neighbours. On a visit, he was persuaded to take me to see the Sennen lifeboat. Coming out of the boathouse (about fifty yards from his cottage) he passed the seated fishermen without a word or look. I stopped and made the conventional remarks one is liable to make on such occasions. When I had overtaken him along the road he said in words that were almost a whisper, “Did you speak to them?” “Yes.” “I couldn’t do that.” Then, having raised the subject he quickly and gladly dropped it.

In dress he preferred comfort before appearance, and his favourite clothes were a pair of ancient grey slacks, a much-loved brown sports jacket, and an open-necked shirt. He could say that he had not used a collar or tie

for five years ; he rarely wore any headgear and his thin and prematurely white hair blew easily in the wind. Whately Carington was always Whately Carington and none other. According to his own account he was regarded by the Cornish people as " a harmless eccentric crank "—harmless because he interfered with no one. In some sense he " liked " the people—especially the " ordinary " people—but he never knew them. Yet no one was more eager to lend a helping hand when needed, and his acts of kindness were many. He was therefore liked and respected ; in the words of an old fisherman—" He was a foine gintleman . . . We allus liked un."

A rumour that he " dabbled in the occult " and " consorted with spirits " was never confirmed, and on the whole it was assumed that he lived in the Cove for the benefit of his health. That the recluse of Ommen Cottage worked and slaved three thousand hours a year on research was not known.

The last year he spent in the writing of two books, *Survival*, which remains a fragment, and *Matter, Mind and Meaning*, which he judged his *magnum opus*. Of this he had written two-thirds at the time of his death. The book has been edited and prepared for publication by Professor H. H. Price.

In past years the Society has often had to mourn the death of distinguished members at the height of their intellectual powers. Gurney died at the age of 41, Hodgson at 50, Podmore at 55, Myers at 57. Carington died at 54, and his loss is to be measured not only by what he achieved—which was large enough—but what he still had in him, awaiting only the creative act. He believed that his Association Theory offered a sufficient explanation of a wide range of psychic phenomena. The theory might eventually require amendment (perhaps extensively) but for the present it brought order out of chaos. Nevertheless the creation of a theory was not enough to satisfy its creator. Psychological research was not an end in itself.

It was necessary to build a new metaphysic. Ninety per cent of all philosophy had outlived its usefulness ; hence the time had come, he wrote, to " construct a genuine metaphysic from first principles . . . of which all physics and all psychology will be derivatives. That might conceivably be done by processes of pure thought without reference to facts at all (*i.e.* by purely epistemological methods)—I'm not at all sure . . . but if we are to use facts at all, we must take cognisance of all (types of) facts, so-called paranormal as well as normal. It is futile to talk about " reality " and ignore hallucinations, veridical and otherwise ; or . . . about time and ignore precognition ; or cognition generally and ignore P.N.C." He therefore planned " a tentative essay . . . to be entitled something like ' Attempt at Thinking—with special reference to Apparitions, Normal Cognition, Precognition and Psychokinesis '." The projected essay was abandoned, its place taken by the unfinished *Matter, Mind and Meaning*, the most ambitious creative work he had ever attempted.

At Christmas 1946 he and his wife were preparing their departure for Provence where they intended to live permanently. Carington was pressing forward with the writing of his book, when he was suddenly stricken with partial blindness of both eyes. He could read no more. In the weeks that followed his strength steadily fell, and a brief visit to hospital proved

unavailing. Of death he had no fear. His great regret was at leaving work unfinished ; his only anxiety was that in the faltering of consciousness that might come upon him before the end, he might recant or in some way modify his strongly held convictions regarding the destiny of the Mind. He accordingly prepared, and signed, a statement which was written down for him by his wife :

I should like to make it clear that, speaking within a few days of my probable death, my views on Survival are substantially those set out in the relevant sections of my book *Telepathy*. That is to say : it is my firm intellectual conviction that Conscious Existence does not terminate with the death of the body, though the form it takes is unlikely, in my judgement, to be closely similar to any of those commonly accepted.

WHATELY CARINGTON

10.ii.47

His mind remained strong and clear to the end. Towards the close of February the Society at its annual meeting adopted a resolution of sympathy for him in his illness. When the letter containing this news was read to him he was too weak to speak but on hearing words concerning his "brilliant and original contributions" to psychical research he smiled with evident happiness—the kind of smile that always lit up his features in moments of intensest pleasure.

On the following morning, the 2nd of March, he was dead, soon after sunrise, and two days later he was buried with Spartan simplicity, in the churchyard which overlooks the Atlantic near Land's End.

RANDOM SELECTORS FOR E.S.P. EXPERIMENTS

R. WILSON.

ABSTRACT

IN this paper is considered the use of random selectors for experiments in Extra-Sensory Perception. The fundamental principles upon which the operation of random selectors depends are discussed; selectors devised by previous workers in the field are criticised in the light of these principles, and a new machine which overcomes many of the disadvantages is described. Another machine to this design is being constructed for the S.P.R. Council; it employs a reliable electronic valve circuit to select one of four lamps, though the same type of selector can be designed to select one of any number of lamps.

Automatic counting of the scores in an E.S.P. experiment is described, and various precautions against false counts are enumerated.

INTRODUCTION

In statistical experiments in E.S.P. one of the most important features of the experimental technique is the method of obtaining a random sequence of cards. Unless the sequence is random, the use of statistics based on the assumption of randomness is invalid. Shuffling cards has its limitations: the shuffling must be very thorough, the pack of cards large, and precautions must be taken against fraud. Soal (Soal 1940; 1943) used preselected numbers, a method which necessitates additional precautions against fraud and is in any case open to objection when used for precognition or clairvoyance experiments. His alternative of using counters drawn from a bag is tedious and open to the same objections.

If a method of selecting the cards is used in which the probabilities for the various cards are not equal, it is possible to use Stevens' method (Soal 1940) to obtain the chance expectation, whereby the material supplies its own probability. But it is still essential, for the statistics to be valid, that the probability of any event occurring is independent of any previous events. This is not true of the average human selector (Tyrrell 1936). Tyrrell also showed that it is not true for the conventional pack of E.S.P. cards if it is of a finite size. In this paper it will be shown that the principal difficulty in devising a satisfactory mechanical selector is to ensure this independence the importance of which especially in precognition experiments, is obvious.

A machine that can produce reliably and quickly a random sequence which can be conveniently used for these experiments is therefore an asset. This has been the goal of two experimenters, (Tyrrell 1936; Redmayne 1940), who both describe electrical machines. A machine which is electrical in operation is most convenient, because a single such machine can be made suitable for operation under various experimental conditions (telepathy, clairvoyance, precognition, etc.) and the conditions may even

be varied during the course of a single experiment. It also facilitates automatic recording of results.

A simple and ingenious machine for testing E.S.P. has been devised by Parsons (1946); this uses counters, and the random selection is obtained by shaking them together in a bottle. It is an improvement over the ordinary technique only for clairvoyance experiments.

Rhine has stated in great detail the requirements he considers essential for an E.S.P. machine (Rhine 1939). In this paper he suggests that the random selector is the most difficult part of the machine to design. This accords with the writer's experience. Rhine's conditions, which include provision for the recording of every light selected and every guess, and counters which reset to zero and stop the machine after a "run" of 25 trials, are considered by the writer to be too extravagant. Though undoubtedly desirable, they are expensive luxuries, and are therefore regretfully discarded. They may easily be connected at a later date if thought necessary.

Merritt has described an automatic card shuffler for use in clairvoyance tests (Merritt 1939).

A selector which has produced 100,000 random numbers has been constructed by Kendall (Kendall 1938; 1939). This uses a continuously rotating disc, divided into ten equal sectors inscribed with the numbers 0-9. One of the sectors was illuminated intermittently by a neon lamp. The number illuminated on each occasion was written down by an observer. This introduces an undesirable subjective element into the operation of the apparatus; one result is that with some observers, a truly random sequence is not obtained. Also, automatic recording is not possible with this apparatus. Both of these factors make the machine, as it stands, unsuitable for E.S.P. experiments, but the selection itself is based upon sound principles.

Tyrrell's selector consists of a Post Office Uniselector Switch, in which a contact arm traverses in turn each of twenty-five contacts. These are wired in five groups of five, since a selection of only five lamps is required. The supply current to the traversing ratchet is cut off by hand at a random instant. The selection of the switch contact to remain in circuit when the ratchet mechanism stops, is random, if the time of traversal of the several contacts be equal. (Inequalities tend to cancel, since there are five contacts for each circuit.)

Redmayne's machine incorporates a motor-driven rotary selector with five vanes mounted at equal distances round the periphery. The selector is stopped at a random time by an attracting electro-magnet, and an electrical contact made to one of the five vanes. In addition to the random variation in time, Redmayne varies the speed of his motor.

Tyrrell's and Redmayne's machines have their disadvantages also. Tyrrell's is not portable, and both use batteries. Redmayne's will not operate at the high speed required for use in some precognition experiments (Soal 1940; 1943); it will be shown later that the randomness of Tyrrell's machine is very dependent upon the regularity with which the key is depressed, especially at high speeds of operation. It may therefore work satisfactorily with some operators but not with others. Also machines constructed by others on apparently identical principles have failed to reach

the same high standard possessed by the prototypes. This is unfortunate, because it makes one doubt whether the prototype is reliable under all conditions of operation, and continuous checking during the course of an experiment is rendered desirable.

The need for a reliable machine is apparent : a desirable attribute is that of easy detection and repair of faults.

If the sequence fails to be random because of some fault, it is desirable that the departure from the randomness should be sufficiently great to become immediately obvious. To design a machine with these features it is first necessary to examine in detail the factors which cause a departure from randomness.

GENERAL THEORY OF RANDOM SELECTORS

All the Random Number Selectors considered in this paper work on the following basic principle :

A mechanical or electrical system traverses, in rapid succession, a number of distinct " states ", each state potentially representing the lighting of a corresponding lamp. The traversal may be by means of a motor-driven rotary switch, or by an electronic valve circuit. The " cyclical period ", or the time taken for all the states to be traversed once, depends on the speed of the driving motor (in the case of a rotary switch) or on the frequency of the oscillator (in the case of a valve circuit), and may if desired be made randomly variable.

The driving motor (or oscillator etc.) is switched on and off every few seconds, either at regular or at random intervals. The state of the system at the instant of switching off determines the lamp to be lit. A guess is then made by the percipient in an E.S.P. experiment, the machine automatically recording the success or otherwise of the guess, and the motor is switched on again in preparation for the next selection. If the lamp is to be *randomly* selected, either the cyclical period, or the running time of the motor (or oscillator), or both, must be random. The conditions of randomness are discussed in detail in Appendix I.

The problem is to convert a randomness in time into a randomness of selection of the lamp to be lit. If there are several cycles during which all the states are traversed before the motor is switched off, and the running time of the motor is made sufficiently irregular with respect to successive selections, the selection will be practically random. Theoretically an infinite number of cycles would be necessary for perfect randomness ; in practice, however, a perfectly random sequence is not required. So long as the effect to be observed is large in comparison with the deviations from randomness, some small preferences, either for individual lamps, or for particular sequences of lamps, can be tolerated.

It is shown in Appendix I that too great a cyclical period (*i.e.* too low a motor speed) or too short a running time, gives rise to sequence preferences. For a 1 per cent deviation from randomness, it is shown that t , the cyclical period, must not be greater than $0.12 \Delta T$, where ΔT is the " spread " of the running time T , and is a measure of the randomness of T . For a five per cent deviation, t must not exceed $0.27 \Delta T$.

It would be difficult for a percipient in an E.S.P. experiment to take advantage of sequence preferences, which are difficult to detect unless they

are very prominent. Probably, therefore, a sequence preference of the order of five per cent should not introduce error provided that the percentage of "true cognitions" is of the same or higher order. It is best, however, to be on the safe side and reduce the cyclical period as much as possible.

It remains to be seen how we can achieve in practice the required spread in T . It is difficult to make a device that fulfils the condition quoted and at the same time is sufficiently reliable. A device which is reliable in operation is usually also consistent in its timing and therefore has a low value of "spread". This applies particularly to electronic switching methods.

The reader should clearly distinguish the time-scales involved here. The rapid succession of states, which may occur many times per second, are best produced electronically; it is difficult to control electronically the timing of the making of the selection, which occurs only once every few seconds.

Three devices seem to have been in use in the past. Tyrrell used a manual method: the time T was the time that a key was held down—*i.e.* was of the order of $\frac{1}{2}$ sec. In estimating the efficacy of this method, the most unfavourable condition must be postulated; that in which the experimenter endeavours to make the times during which the key is held down in successive trials as nearly as possible equal. Experiments on response times (Woodworth 1939) indicate that this method may give a value for ΔT as low as $\frac{1}{10}$ th sec. It is clear that this is too small to give an adequately random selection with Tyrrell's Machine, for which t is $\frac{1}{10}$ th sec. An alternative method, which improves the position slightly, is to take for T not the time of holding down the key but the time between the operation of the trial recorder for the previous guess, and the time the key is pressed for the new selection. This method is used in the writer's machine, giving a time T of the order of a second or more.

A fully automatic method is used by Redmayne. He uses the variability in the time of heating up of a Thermal Delay Switch to produce the variation ΔT , in conjunction with two relays for resetting. The relays and the Thermal Delay Switch turn each other on and off with a period determined by the heating time. The particular type of switch used (Bulgin) is rather erratic in its action, especially when adjusted to give a short repetition time. This produces a large "spread", but in the writer's experience at the cost of reliability. It is liable to flicker at the moment of making or breaking contact; with high-speed recorders there is a possibility of double counts. While adequate for Redmayne's purposes, it would be unsuitable for operation at a higher speed.

Alternative types of Thermal Delay Switch which are free from this defect do not give a sufficiently high value of "spread".

One relay could if desired be replaced by a contact operated by the Trial Counter, so that the Repetition Time could be adjusted automatically to the percipient's requirements without the advantages of automatic control being lost.

Kendall's method probably gives the highest value for ΔT . The time T is the time taken for a condenser to charge to a given value (the flashing potential of a neon lamp). The charging resistance is a crisscross of pencil

lines on a piece of paper ; the circuit is not completed till the operator touches the pencil lines with a metallic pointer. As he moves the pointer across the paper, the charging resistance varies in a random manner, and produces the required variation ΔT in the charging time.

This method is, however, tedious to operate and, therefore, unsuitable for E.S.P. investigation.

Another alternative, which the writer intends to try, is to use a contact operated by a clock. The type suggested is the Air Ministry type contactor master type 2 (10A/10994). It makes a contact once per second for about $\frac{1}{4}$ second, and seems to give a "spread" of $\frac{1}{50}$ th sec., which is adequate when used in conjunction with a sufficiently low cyclical period.

RANDOM VARIATION IN MOTOR SPEED

If the switching time T remained absolutely regular (*i.e.* $\Delta T=0$), and the cyclical period (and motor speed) were made to vary in a random fashion, a random sequence would still be obtained. The cyclical period would still have to be small in comparison with the interval T . We require that the mean cyclical period, as measured over a time interval T , should have no correlation with the mean cyclical period measured during the interval T immediately succeeding. This requires a motor to be accelerated and retarded many times during the interval T , and this condition Redmayne's machine does not fulfil. If this were the only factor in Redmayne's machine producing randomness, very strong sequence preferences could be expected.

If an electronic valve circuit is used, a random variation of cyclical period might be obtained in one of several ways. A simple method would be to amplify the random voltages produced by thermal fluctuation in a high resistance or by a noise valve. Such a source has been used to simulate the random pulses which cause interference in radio sets (Licklider 1947). An alternative, which would probably prove less reliable, is to use the pulses obtained from a Geiger counter when counting the rays from some radioactive material. This has been suggested as a method of obtaining a random sample from a collection of punched cards (Vickery 1939). Both are fundamentally good ways of obtaining a random sequence ; the former depends upon the random motion of a large sample of molecules and electrons (of the order of 10^{23}), and the latter depends upon the uncertainty of radioactive decay. But caution should be observed : it is possible, by observing a random sequence in the wrong way, for it to appear to be a regular sequence. This occurs when the resolving time of the scaling circuit or the band-width of the amplifier is inadequate. The matter is discussed fully by Fürth and MacDonald (1947). Nuclear physicists often have a suitable apparatus already set up, and the writer has verified that such a system works well, and because of its great flexibility uses it for demonstrating the principles of these devices.

CHANGEOVER TIME

Another important detail to be considered is the time taken by the machine to change from one "state" to the next. There is a short time when the machine is, as it were, poised between two states ; if the motor is

stopped at that instant, there may be uncertainty as to which of the lamps is to be lit. If this time varies slightly as between different pairs of states, and the variation is comparable with the cyclical period, then departure from randomness will be observed (*e.g.* one lamp will be selected more frequently than others). This effect occurs in all selectors from Roulette Wheels onwards. During the changeover time the factors which otherwise determine the selection of the lamp are small, so that the selection may be affected by extraneous factors, such as irregularities of construction, the inertia of the motor and apparatus, etc.

The concept is most easily understood by reference to a particular machine, for example in Redmayne's type.

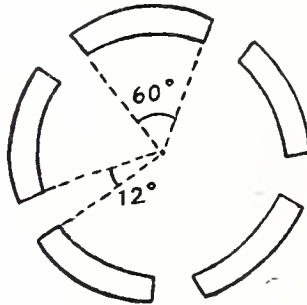


FIG. 1

Suppose the five vanes occupy 60° of the circle each, so that there is 12° of insulation between each pair. Then, if at the instant when the attracting magnet stops the rotation of the selector, the magnet is over the insulator, we cannot predict which lamp will be selected, since this will be affected critically by small inequalities of the system. The effect will be further considered below in connection with the writer's machine.

THE WRITER'S ELECTRONIC SELECTOR

The writer's Selector makes use of an electronic valve circuit, extensively used in Nuclear Physics, called a Scaling Circuit. There are several types, with various complications and frills, but basically the operation is simple. The circuit has a number of positions of stable equilibrium, determined by whether certain valves conduct heavily or not at all; but on application of an external pulse the circuit changes to the next position.

In Nuclear Physics the circuits are used to produce one output pulse for every, say, eight or ten, input pulses. This will occur whatever the rate of arrival of the input pulses. It is used in particular for counting random pulses which are arriving too fast to actuate directly a mechanical counter. Interpolating lamps are often arranged to indicate the intermediate positions of the circuit.

In the Selector built by the writer, the input pulses are of constant frequency and are provided by a Transitron oscillator. They are then applied through a switch to a Scaling Circuit with four states (a "Scale of 4 Counter"), with four interpolating lamps. The oscillator is disconnected from the scaling circuit at a random instant by pressing a "Selector Key".

The scaling circuit remains in the state in which it happens to be at the instant of pressing the Selector Key, and the corresponding lamp lights.

A scale of four counter is used in preference to a scale of five (the number five being traditional in E.S.P. experiments) because the electronic circuit involved is simpler. Reliable circuits have, however, been devised for any number of states (Lifschutz 1940). It might be an advantage to have a larger number of choices than four, to decrease the chance successes, but there would be a tendency to lose the motor response which makes this type of experiment successful. In view of the increased complexity of an increased number, it was not considered worth while to make provision for this.

The oscillator frequency used is 3200 pulses per second. With four lamps, the cyclical period is $1/800$ th sec. and therefore a spread ΔT of $1/200$ th sec. or more should produce a random sequence. The spread of $1/10$ th sec. given by hand operation, or $1/50$ th sec. given by the Air Ministry contactor, should be satisfactory.

The changeover time is the time taken for a valve to pass from the non-conducting to the fully conducting state. It cannot be greater than the width of the pulse from the transitron, which, after sharpening, is of the order of 10^{-6} seconds. This is negligible in comparison with the cyclical period $1/800$ th sec.

The circuit is described fully in Appendix II.

ANOTHER POSSIBLE METHOD OF RANDOM SELECTION

Another method of obtaining a random selection electronically was tried by the writer. Four biased back thyratrons were arranged to be triggered respectively by the phases of a four-phase A.C. supply. The phase which happens to be the most positive at the instant of switching on, triggers the corresponding thyatron and lights a lamp.

This method was rejected because of the high changeover time, which renders the circuit unduly sensitive to changes in bias voltage, and so produces departures from randomness.

OPERATION IN E.S.P. EXPERIMENTS

The operation of an electrical E.S.P. machine is quite simple. A description of the operation of the writer's machine is given, but each type has its own peculiarities.

The Selector is in a small portable box which contains also the recording counters. The lamps are in a separate box on the end of a short lead from the Selector. This box can be covered for use in clairvoyance tests, or observed by an agent in telepathy tests. Over each lamp can be placed a transparency bearing an appropriate symbol: cross, square, etc.

The percipient has a "Guess-Box" connected by a long lead to the Selector Box. On this box are mounted the four "Guess Keys" and the "Selector Key". The keys used in the prototype are telephone jack switches, but button switches are to be used in the model under construction for the S.P.R. The Guess-Box should be operated at a distance from the Selector, and the same precautions taken against hyperaesthesia etc. as in

other E.S.P. experiments. The experimenter should not relax his caution because he is using a machine.

The machine takes about thirty seconds to warm up, after which it should be tested for randomness over ten or fifteen trials. Any defect should be instantly observable at this stage: a failure of a valve, for example, cause a complete breakdown, *e.g.* a failure of two of the lamps to be selected at all. A fault leading to only slight "preferences" is almost impossible with this machine.

Before starting a run of trials, any one of the Guess Keys is pressed, so setting the Selector in operation. The two Recording Counters are then read. The percipient presses the Selector Key, which makes a random selection, and lights one of the four lamps. He then presses one of the four Guess Keys, to guess which lamp is lit. The Counters automatically count the number of guesses and the number of successes. The percipient continues, alternately pressing the Selector Key and one of the Guess Keys till the end of the run, when the counters are again read giving the result of the experiment.

If it is desired to count a definite number, say twenty-five, of guesses, the experimenter must watch the trial counter and stop the percipient or switch off the machine when sufficient guesses have been made. It is a major disadvantage of the machine that no automatic provision is made for this. In telepathy tests the agent sees the lamp selected by the machine but plays no active role.

It is possible for the experimenter to alter certain conditions during the run, *e.g.* to cover up the lamp box in order to change from telepathy to clairvoyance conditions without the percipient being aware of the fact by any normal means.

PRECOGNITION TESTS

For experiments in precognition, one switch is changed on the Selector Box, and another on the Guess-Box; these cut out the Selector Key and the selection is then made by auxiliary contacts on the Guess Keys. Since the key has to be pressed by the percipient before the selection is made by the machine, the guess is before the event and is truly precognitive. The only possible alternative to precognition in producing correct guesses would seem to be a P.K. faculty influencing the selection.

CLAIRVOYANCE TESTS

For tests in absolute clairvoyance, it is desirable that no indication of the selection be made to any person at any time, in order that the possibility of precognitive telepathy (as suggested by Tyrrell) may be eliminated. It is held by some that no indication even as to which particular guesses are successful should be given, and the machine is therefore designed to record only the total number of trials and of successes in a series.

Unfortunately, the Success Counter used at present is somewhat noisy in action, although the sound is partially swamped by the simultaneous operation of the Trials Counter, and still gives an auditory indication of success. A more silent counter might be employed; but the only real safeguard is to ensure that the counters are at a considerable distance from any-

one. A morse inker or other device recording individual guesses (as used by Tyrrell) is inadmissible.

PRECAUTIONS AGAINST FALSE COUNTS

Redmayne has considered possible causes of false counts in fair detail. His device for preventing two keys from being pressed simultaneously has been adopted by the writer. This is a Trip Relay, which is of higher speed than the Counters, and which operates on a current of 10 mA., but not on 5 mA. When one key is pressed, a current of 5 mA. is passed through the relay; when two keys are pressed simultaneously, 10 mA. is passed through the relay, which therefore trips, and the Trip Relay Meter registers. The run in progress must then be discarded; this usually occurs the first time the percipient has operated the machine, so unfortunately terminal salience effects may be missed. A Trip Relay Reset Key is provided on the Selector Box to reset the instrument for the next run.

After each guess the oscillator is automatically reconnected and the supply voltage to the Counters cut off, so that only one guess can be made for each selection. When an attempt is made to record a guess before the Selector Key has been pressed, the Trial Counter will operate but the Success Counter will not. This is an unfortunate feature of the apparatus, since it will reduce the proportion of recorded successes; but it is an error on the right side, and it would require an additional relay to avoid it.

Redmayne provides a device for precognitive trials to prevent guesses being made more frequently than one every two seconds. This is not necessary in the writer's machine, because the hysteresis of the relay contacts prevents the oscillator from being connected for less than $1/50$ th sec. This represents some sixteen cyclic periods, which is sufficient to ensure randomness. This is another advantage of the high oscillator frequency.

Another possibility, not specifically mentioned by Redmayne, is that the Guess Key might "make" the various contacts at slightly different times; thus, by pressing the key only lightly, it might be possible to operate the Success Counter and not the Trial Counter, or not to operate the Trip Relay contact. In order to obviate this possibility, the Guess Key contacts have been arranged to operate in the following order: (a) Trip Relay contact; (b) contact making selection (in precognition tests only); (c) contact connecting the Success Counter to the appropriate circuit; and (d) the contact actuating (simultaneously) the two counters. The order (b) or (c) is immaterial.

It is important that the Trial Counter should not take longer to operate than the Success Counter, otherwise, again, it might be possible, by flicking the key quickly, to operate the Success Counter and not the Trial Counter.

RESULTS SO FAR OBTAINED

Various percipients have been tested for various forms of E.S.P. with this machine. The writer scored significantly at first but the effect declined to zero after 4,000 trials. Two others have given strong positive results. All these experiments have been exploratory: the precautions against false counts were not all in operation when they were carried out.

Further experiments with the same percipients will be carried out as opportunity occurs.

Some statistical tests of the randomness of the machine are given in Appendix III.

APPENDIX I

MATHEMATICAL ANALYSIS OF THE CONDITIONS FOR RANDOMNESS

SUPPOSE the system changes from one state to the next N times per second.

If there are n states, each state is traversed $\frac{N}{n}$ times per second, so that the

cyclical period $t = \frac{n}{N}$. Suppose the time the motor is running for each selection is T seconds.

Then during the time T the system will have changed its state p times, where p is the nearest integer below TN . It will come to rest at the q 'th state, where q is the remainder after dividing p by n .

Now if T is the same for each trial, the lamps will come on in regular sequence, each time moving to the q 'th lamp counting from the lamp lit in the previous trial. For a random selection, T must be slightly different for successive trials. Suppose that the frequency of occurrence of a value T is distributed about a mean value \bar{T} with a Gaussian distribution. (This is a reasonable approximation and a convenient way of specifying numerically the spread of the values: but it is not valid if the spread is of the order of \bar{T} itself.)

The frequency y is then given by an equation $y = y_0 \cdot e^{-(T-\bar{T})^2/\sigma^2}$.

Let the width of this curve for values of y at half the maximum be ΔT : then we require ΔT to be large compared with t , in order that the probabilities of q having values from 1 to n may be equal to within the required accuracy. If this is so, the probabilities of selection of the several states will be equal.

This analysis assumes that each value of q is obtained from one range of values of T at the top of the error curve. In fact each value of q can be obtained from a number of ranges of values of T distributed on either side of the error curve; but provided that the above condition is satisfied, the ranges on opposite sides of the curve will roughly cancel each other in their effects, and the method therefore gives a sufficiently close approximation for our present purpose.

The value of T for half maximum is given by putting $y/y_0 = \frac{1}{2}$. This gives

$$(T - \bar{T})^2 = \sigma^2 \cdot \log_e 2.$$

$$\text{i.e. } (\Delta T/2)^2 = \sigma^2 \cdot \log_e 2.$$

$$\therefore \Delta T = \sigma\sqrt{2 \cdot 8} = 1 \cdot 67 \sigma.$$

Suppose we put the requirement that the probabilities for each lamp shall be equal to within 1 per cent. Then

$$y/y_0 = 99/100 = e^{-(T-\bar{T})^2/\sigma^2}.$$

$$\therefore (T - \bar{T})^2 = \sigma^2 \cdot \log_e 1 \cdot 01$$

$$T - \bar{T} = 0 \cdot 1 \sigma = 0 \cdot 06 \Delta T.$$

The total spread is twice this expression, so we want t to be less than $0.12 \Delta T$. Similarly for a 5 per cent inequality we require t to be less than $0.27 \Delta T$.

EFFECT OF FAILURE TO COMPLY WITH THIS CONDITION

If T be absolutely constant, there will be a sequence of lamps, say 1 4 2 5 3 1 4 2 5 3 . . . The Selector will show a definite sequence habit, or, in a special case, just repeat the same lamp. If ΔT is too low, a deviation from randomness will be observed, in the form of sequence preferences. There will be a tendency to shift from one sequence to another: thus, with four lamps, we might have 1 3 1 3 1 2 4 2 4 3 1 3 2 4 2 4 1 3 1 3 4 . . .

This will clearly lead to the same mean expectation for each lamp as a purely random sequence; the standard deviation will, however, be increased.

APPENDIX II

DESCRIPTION OF THE CIRCUIT OF THE WRITER'S MACHINE

The scaling circuit used in the prototype (Fig. ii) uses a pentode trigger pair (Reich 1938). V_1 , a transitron oscillator, generates negative pulses at the suppressor grid, which are sharpened by the differentiator circuit $C_3 R_6$, giving a pulse-width of about 2 micro-seconds, and a "time of rise" of less than $\frac{1}{2}$ micro-second. They are then fed through a contact of the relay P_3 to the grids of the first trigger pair $V_2 V_3$. These are so biased that only one of the two valves can conduct: an input pulse cuts off both valves, and at the end of the input pulse the valve which was originally non-conducting draws current, and the two valves have changed places. The pair has been "triggered". At the next input pulse, the pair triggers back again.

At alternate input pulses, therefore, positive and negative pulses are passed to the next trigger pair $V_4 V_5$. The positive pulses have no effect, but the negative pulses trigger the pair.

The trigger valves $V_2 V_3 V_4 V_5$ operate the lamps through the relays $P_1 P_2$. The relays cannot be inserted directly into the trigger circuits without upsetting the operation, so an isolating valve V_6 is incorporated.

It will be seen that there are four states of stable equilibrium of the system, and the following cycle of events occurs on receipt of successive input pulses.

- Initially $V_2 V_4$ conduct; P_1 off, P_2 off.
- After 1st pulse $V_3 V_4$ conduct; P_1 on, P_2 off.
- After 2nd pulse $V_2 V_5$ conduct; P_1 off, P_2 on.
- After 3rd pulse $V_3 V_5$ conduct; P_1 on, P_2 on.

After the fourth pulse the system returns to the original state. By the arrangement of relay contacts shown, each state corresponds to the lighting of one indicator lamp.

When the oscillator is connected to the Scaling Circuit, the relays cannot follow the rapid change of state. To prevent a buzz, which wears out the relay contacts, condensers C_{13} , C_{14} are placed across the relays.

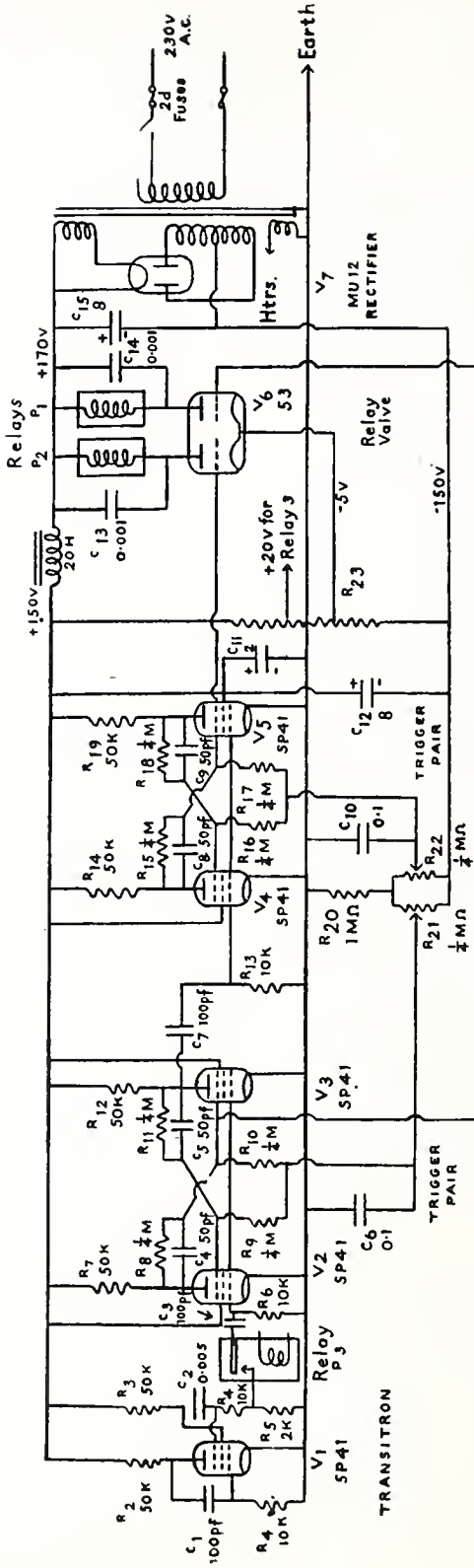


FIG. 2. Selector Circuit.

On de-energising P_3 , the contact is broken, and the oscillator is disconnected from the Scaling Circuit, which remains in the state in which it happens to be at the instant of breaking contact, and the appropriate lamp is selected. During the time that the Scaling Circuit is changing its state, it is undesirable that any lamp should be lit, and the lamps and counters are therefore switched off by means of another contact of P_3 .

The power pack is conventional, and in addition to supplying L.T. and H.T. for the valves, supplies 35 v. D.C. for the counters and lamps, by connection of a rectifier between the taps in the primary of the mains transformer.

GUESSING AND RECORDING CIRCUIT

The switches S_1, S_2, S_3, S_4 are the four Guess Keys. Each has four contacts A, B, C, D. These are adjusted to work in the order A, B or C, D. Switch S_5 , the Selector Key, has two contacts, A and B, which operate in that order.

Contact A of all five switches operates the trip relay P_4 . This relay is adjusted so that it will trip with a resistance of $1\frac{1}{2}$ kw. in series but not with a resistance of 3 kw. in series, so if two keys are pressed simultaneously, the relay will trip, providing an alternative path to keep P_4 closed after the keys are released, and passing a current through the indicating meter.

Contact B of the guess and selector keys, de-energises the relay P_3 . The relay is energised by the selector key for direct trials, and by the guess key for precognitive trials. For direct trials the selection remains on release of the key, but for precognition trials the instrument is made ready for the next selection on release of the key.

P_3 disconnects the oscillator from the scaling circuit, as already described, thus making the selection, and applies the voltage to the lamps and counters. On making a guess contact C operates before contact D; contact C connects the success counter to the appropriate circuit, but neither counter can operate till contact D is made.

The operation of the trial counter prepares the instrument for another selection when operated for direct trials.

Condensers $C16, C17, C19, C20$ are inserted in order to prevent switching surges caused by the relays breaking the counter circuits. These pulses may otherwise cause spurious operation of the scaling circuit, and cause false results.

S_6 and S_7 switch from direct operation to precognitive operation.

APPENDIX III

STATISTICAL ANALYSIS OF THE SELECTION

Test for Sequence Preferences.

The first thousand numbers selected by the machine, were tested in the usual way (Soal 1937). A number was arbitrarily assigned to each lamp, and the sequence of lamps lit was taken down by hand. They were then arranged in a ring, and the number of times that the lamp r follows the

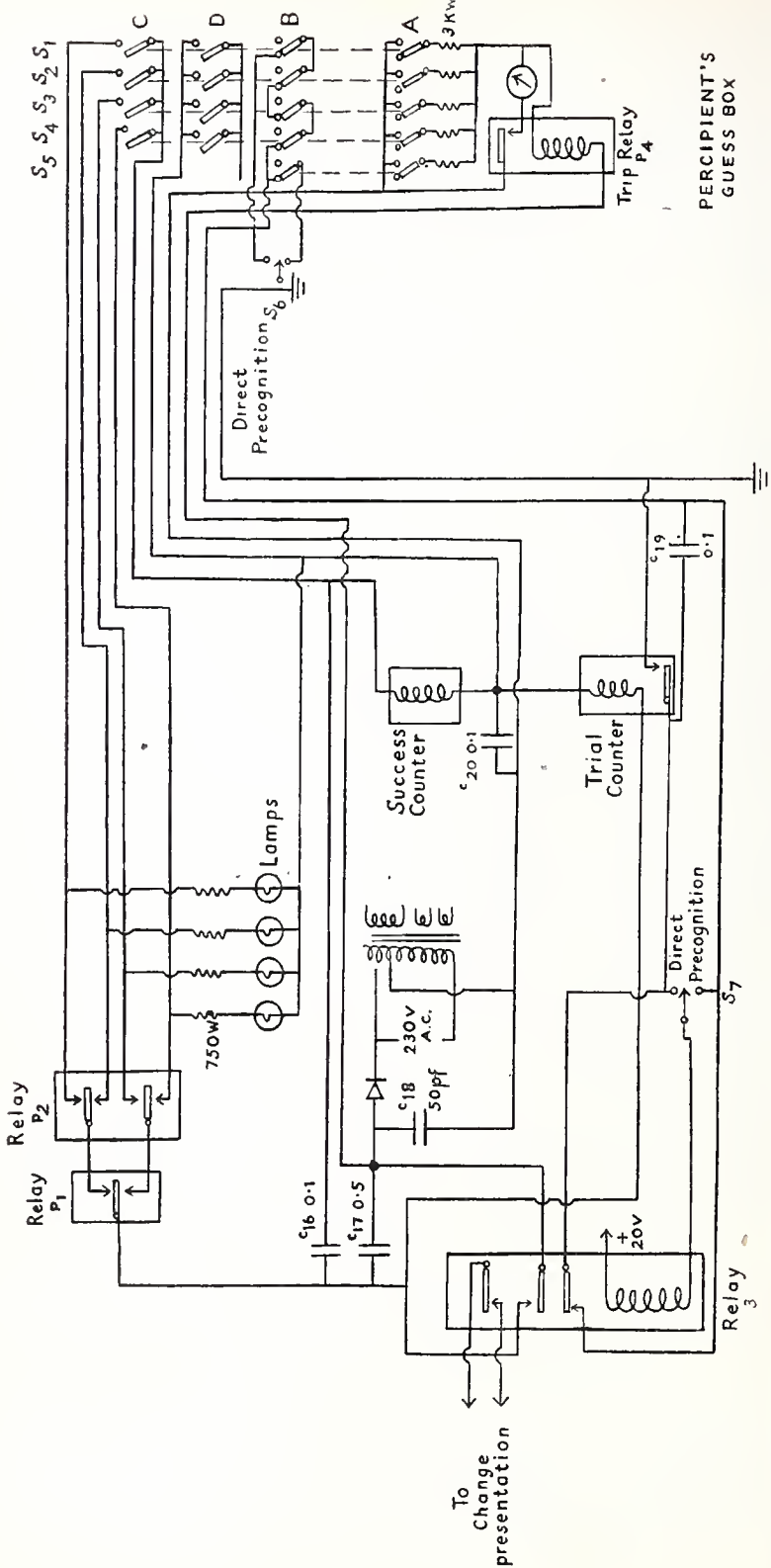


FIG. 3. Guessing and Recording Circuit.

lamp s was counted. These sixteen numbers n_{rs} were arranged in a 4×4 array as follows :

		r				
		1	2	3	4	Total
s	1	71	59	64	62	256
	2	63	53	60	59	235
	3	62	65	69	63	260
	4	60	57	67	65	249
Total		256	235	260	249	1000

The mean expectation for each of these numbers is $62\frac{1}{2}$. On analysis it is found that $\chi^2 = 5$. There are four linear relations between these sixteen numbers n_{rs} , so there are $16 - 4 = 12$ degrees of freedom. The probability of exceeding this chance deviation is 0.95.

Test for Frequencies.

A more sensitive test for frequencies can be made by considering the deviations of the totals for each lamp from the mean. These deviations are : 6, -15, 10, -1. The standard deviation is 14, so that none of these deviations are significant.

Test for Repeats.

Let the number of occasions any one lamp is lit x times in succession be S_x . Then the observed values for S_x can be compared with the expected values for a chance distribution. The comparison is shown below :

	Observed	Expected
S_6	0	$\frac{1}{2}$
S_5	2	2
S_4	5	9
S_3	not	35
S_2	computed	140.5
$S_2 + 2S_3 + 3S_4 + 4S_5 +$	258	250

This is a sufficiently close agreement.

Further Tests.

Further tests are made from time to time for frequencies alone, by counting automatically the total number of selections made, and the number of selections of one individual lamp. Also a system for testing sequence preferences using the automatic counters, has been devised ; this depends upon the effect discovered by G. W. Fisk (Tyrrell 1936). The tester operates the guess buttons, continually pressing the same button till a success is scored. He then changes to the next lamp till he scores a success with that lamp ; and so on. With a deficiency of " repeats " this gives a higher probability of success. With too many repeats a lower probability is obtained, and with sequence preferences, the probability is either higher or lower, depending on the sequence.

When testing automatically, the machine is usually tested in runs of 100 to enable comparisons to be made between runs, and to make sure there are no faults of short duration. Sometimes 101 trials were made by mis-

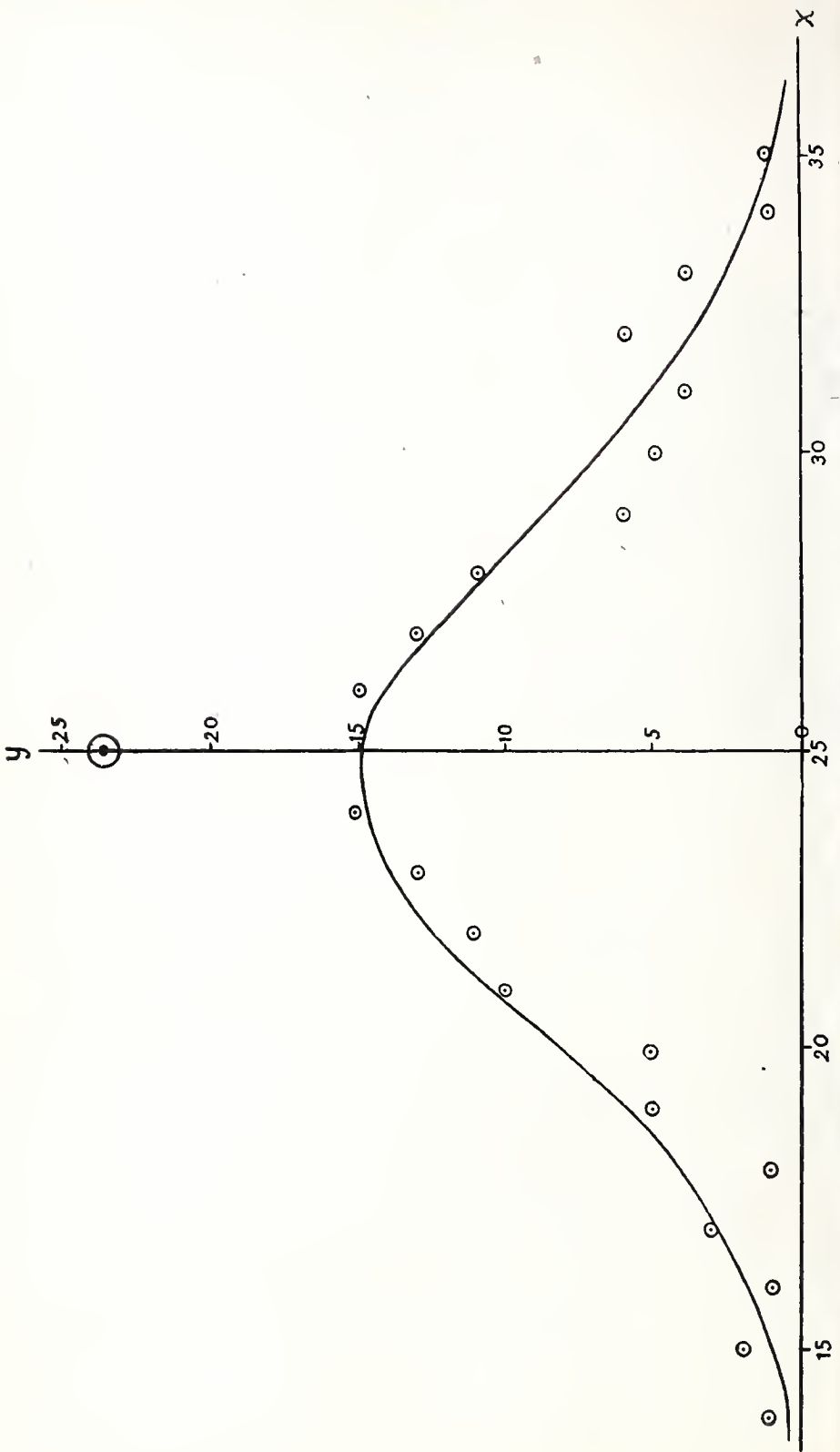


FIG. 4. Observed values circled. Theoretical values connected by the smooth curve.

take. In order to avoid wasting these readings, the percentage of successes was taken as the score.

The number of successes for each run of 100, for all methods of testing, was tabulated. 157 runs were included. The frequency of occurrence y of a score x was plotted against x . The expected value of y is given by the formula

$$y = 157 \left(\frac{1}{4}\right)^x \left(\frac{3}{4}\right)^{100-x} 100C_x$$

where $100C_x$ is the coefficient of p^x in the expansion of $(1+p)^{100}$.

The agreement is shown in Fig. 4.

There is a large preponderance of the value $x = 25$. This is not significant, since it is the only large deviation in the table, and it is only worth mention in case some plausible non-chance hypothesis can be found to explain it.

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THE VOLUME OF BYRON: A SIGNIFICANT BOOK-TEST

C. DRAYTON THOMAS

IN the winter of 1930, my aunt Margaret residing at Tenterden, wrote that she wished to give me a volume of Byron's poems which had belonged to my grandfather and contained marginal notes in his handwriting.

To the best of my belief this was the first time I had heard of this annotated book; knowing how interested my father had been in his father's literary work, I took occasion at the next sitting to mention the expected gift, hoping that it might be made the subject of an experiment. My father remarked "I wonder if Grandfather will remember anything about his notes".

At my sitting with Mrs Osborne Leonard on December 24th, 1930, my uncle Alfred (aunt Margaret's husband) speaking through Feda (the Control) said:

"Do you say Aunt is giving you one book? I thought she was giving you two. There was something in her mind that suggested you were to have two books . . . See if she has put in it the page which used to be kept in that book and could be slipped in and out."

After some remarks about the book, he added:

"Tennyson—has this book been placed near the Works of Tennyson? or has Aunt been thinking a good deal about Tennyson lately? I get the thoughts so mixed—Tennyson and Byron; you might try to unravel this."

A few days later I visited Tenterden and, having exchanged greetings with my aunt, immediately asked to see her books. This I did lest she should bring the Byron to me and thus prevent my ascertaining what books had stood near it. I was not familiar with the house, into which my aunt had recently removed, and did not know where her books were kept.

My aunt led me into a room which I do not remember to have previously entered and pointed to a shelf on which stood some forty volumes. *The Byron was only one-quarter of an inch distant from a volume of Tennyson's Complete Works*, the two books being separated only by a thin manuscript.

I confess to a feeling of surprise on seeing this, but that surprise was increased by my aunt's next words. She said, "During Christmas I wished to find Tennyson's lines, 'Ring out wild bells', and could not find them." I found the page for her and, while she was reading it, thought over this double fulfilment of the test. Alfred had spoken of two thoughts or ideas mingled—Tennyson and Byron. Those names had, as I now heard, been in my aunt's thought recently; and not only so, but the Works of those poets were standing side by side on her shelf. This would account for the uncertainty as to whether the linking together of the two poets was due to the position of their books or to thoughts in Margaret's mind.

My aunt now took the Byron from the shelf and placed it in my hands, and next she found a volume of Whittier asking if I would accept that also. It was then that I recalled Alfred's remark that he thought Aunt proposed giving me *two* books, as he had found something in her mind to that effect.

Thus he had rightly interpreted two different *thoughts*, one relating to Tennyson and the other to the gift of a second book.

This indicates cognisance of facts both physical and mental. My communicator had not only found the position of books on a shelf, but had been aware of thoughts and intentions in Margaret's mind.

Further descriptive statements about the Byron book had been made at the sitting :

" Inside are two coloured sheets, as if the paper were of two qualities. On opening the book you distinctly see this deeper shade."

This I found correct : the first and last pages are brown, and made of paper different in quality from the rest of the book.

" Alfred has an idea that this book has illustrations. He remembers something of them."

The Byron had been in Alfred's keeping after my grandfather's death.

This statement about illustrations proved to be correct ; there were two pictures in the book as published, and a third, showing Byron as a youth, had been pasted inside the cover.

I now come to what proved to be the most interesting remark of all.

" Has she put the page in? Do you mind looking to see? There used to be something kept in the book that could be slipped in and out. He has forgotten what it was, but wonders if it is still there."

While standing by the bookshelf and turning the pages of the Byron, I noticed something which might have been intended by this remark. It looked like a sheet of paper gummed in position between two pages. I hastily closed the book without examining this leaf ; because it occurred to me that I could ask for further information about it at a subsequent sitting.

Taking the Byron home I put it away and did not look at it again until further information had been given about this special page.

At my next sitting Grandfather was said to be present and giving the following. I state the items singly, adding to each the verification discovered when examining the book at home.

I began by asking if Grandfather would speak about his Byron.

Feda : There was a loose page and he thinks it was not quite the same size as the other pages. There was quite a dissimilarity, different texture and class of paper too. It did not seem to belong and yet it was there . . . If you felt its surface you would know at once that it was not really part of the book.

A perfectly correct statement. This added page is smaller than the others, different in shade and texture, and feeling irregular to the touch where two pieces of paper had been gummed over the original surface.

Feda : Grandfather's impression was that this page had been creased or folded. He thinks you will find it so.

This, too, is correct. There is a deep crease running from top to bottom, owing to the page having been cut from a double sheet of previously used sermon paper and still showing the original centre fold.

Feda : This is important : there are lines going the opposite way to those in the book. Something on the paper makes you feel it ought to be the other way about.

This is so ; the writing of the notes is horizontal, whereas the original sermon writing runs perpendicularly.

I then asked if Grandfather knew what was on the paper and why it had been inserted. The answer was :

Feda : Yes, he knows. There should be something on it which is not strictly connected with the book. Something is, but something is not. He thinks there is something on that paper which will indicate to you something different from Byron.

I found both sides of the inserted page covered with historical notes about Napoleon, while such words of the original sermon as are visible refer to Babylon and the Pope.

We now come to the final and most important remark :

Feda : I wonder whether he had numbered the page ; for there is something in his mind about a number. He thinks when you look at it you will say, " I wonder why this was put in here."

This conveyed nothing to me. It must be remembered that I had not examined this inserted page. The momentary glimpse when the book was first placed in my hands had shown merely a sheet of paper with writing on it. I had instantly closed the book so that I might obtain no information. This left the way clear for further inquiry ; it seemed possible that if Grandfather had thought it sufficiently important to add a page, he might recollect his reason for doing so. When, after this final sitting, I came to scrutinise the page I was considerably puzzled. As already remarked, the leaf had been cut from a double page of writing paper, one side of which was originally covered in my grandfather's handwriting by sermon material. I can read, for instance, the words " Babylonian punishment . . . Pope Adrian VI and the Catholic Princes . . . Downfall of ancient Babylon." The side of the sheet on which this sermon was written is almost completely covered by two pieces of paper which have been gummed over it. These, together with the reverse, are filled with historical notes about *Napoleon*, his battles and the *condition of France* at that period.

Having satisfied myself about the contents of this inserted leaf I proceeded to read the pages of Byron between which it was affixed. And it was indeed a puzzle why it had been inserted there. The leaf stands between pages 558 and 559, and the headings of those pages are, *Windsor ; Poetic Stanzas for Music ;* Address intended to be recited on the *Caledonian Meeting ;* *Fragments of an Epistle to Mr. Thomas Moore ;* *Consolatory Address to Sarah, the Countess of Jersey.*

Why then had this leaf been placed amid such irrelevant material? I could not say. Following a hint given in the sitting I examined the inserted page for a number. At first I failed to find one, but later noticed, very faintly¹ pencilled in the top left corner, the figures 560. That gave the

¹ It was necessary to darken these figures in order to render them visible in the photograph.

1814.

1815.

OCCASIONAL PIECES.

561

That heavy chill has frozen o'er the fountain of our tears,
 And through the eye may sparkle still, 'tis where the ice appears.
 Through wit may flash from fluent lips, and mirth distract the breast,
 Through midnight hours that yield no more their former hope of rest;
 'Tis but as ivy-leaves around the ruin'd turret wreath,
 All green and wildly fresh without, but worn and grey beneath.
 Oh could I feel as I have felt,—or be what I have been,
 Or weep as I could once have wept, o'er many a wretch's scene,
 As springs in deserts found seem sweet, all brackish though they be,
 So midst the wither'd waste of life, those tears would flow to me.¹

March, 1815.

STANZAS FOR MUSIC.

Texas be none of Beauty's daughters
 With a magic like thee;
 And like music on the waters
 Is thy sweet voice to me.
 When, as if its sound were waiving
 The charmed ocean's pausing,
 The waves lie still and gleaming,
 And the lull'd winds seem dreaming.
 And the midnight moon is weaving
 Her bright chain o'er the deep;
 Whose breast is gently heaving,
 As an infant's sleep.
 So the spirit bows before thee,
 To listen and adore thee;
 With a full but soft emotion,
 Like the swell of Summer's ocean.

ON NAPOLEON'S ESCAPE FROM ELBA.

Ours fairly set out on his party of pleasure,
 Taking coast at his liking, and crowns at his leisure,
 From Elba to Lyons and Paris he goes,
 Making balls for the ladies, and fairs to his foes.²

March, 27, 1815.

¹ [Do you remember the flow (and you only last year) I don't wish (like Mr. Phipps) to censure the character of "Paris" in all its transitions—but were they not a little propaetic? I mean those "beginning." There's not a lot of the world can give." &c. on which I please myself as being the most, though the most melancholy, I ever wrote.—Byron Letters, March, 1815.]

² [I can forgive the rogue for utterly falsifying every line of these lines, which I take to be the last and uttermost stretch of human magnanimity. Do you remember the story of a certain noble who wrote a treatise on the Swedish constitution, and proved it indissoluble and eternal? Just as he had completed the last sheet, he was told that Gustavus the Third had destroyed this important government. "Sixteenth the noble," the King of Sweden may resemble the constitution, but not with him. Shaking every allowance for talent, and most commendation during these is, after all, a good deal to his credit. He might have been stupified by our frigates, or wrecked in the Gulf of Lyons, which is particularly impetuous—&c.—a

Napoleon was accused by some of being the friend of the French—last line of the poem is not to be taken as a compliment to the French.

ODE FROM THE FRENCH.

I
 We do not curse thee, Waterloo!
 Though Freedom's blood thy plain bedew;
 There 'twas shed, but is not sunk—
 Rising from each gory trunk,
 Like the water-sput from ocean,
 With a strong and growing motion—
 It sways, and engulges in the air,
 With that of lost Liberty's fire—
 With that of him whose honour'd grave
 Contains the "treasure of the brave."
 A crimson cloud it spreads and glows,
 But shall return to whence it rose;
 Whom 'tis dull 'twill burnt another—
 Never yet was heard such thunder,
 As then shall shake the world with wonder—
 Never yet was seen such lightning
 As o'er heaven shall then be bristling;
 Like the Wormwood War forsook
 By the sainted Serp of old,
 Show'ring down a fiery flood,
 Turning rivers into blood.³

II.

The chief has fallen, but not by you,
 Vanquishers of Waterloo!
 When the soldier citizen
 Sway'd not o'er his fellow-men—
 Save in death that led them on
 Where glory smil'd on Freedom's son—
 Who, of all the despots banded,
 With that youthful chief competed?
 Who could boast o'er France defeated,
 Till Louis Tyranny command'd
 Till, guided by ambition's stuf,
 The Hero sunk into the King?
 Then he fell!—so perish all
 Who would man by man enthrall!

III.

And thou, too, of the snow-white plume!⁴
 Whose realm reflect'd thee ev'n a tomb,⁵
 Better hadst thou still been leading
 France o'er hosts of hirelings breeding,
 Than sold thyself to death and shame
 For a meanly royal name:
 Such as he of Naples wears,
 Who thy blood-bought title bears.
 Little didst thou deem, when dashing
 On thy war-horse through the ranks,
 Like a stream which burst its banks,
 While helmets clink'd, and sabres clashing,

thousand things. But he is certainly France's favourite.—Byron Letters, March, 1815.]

¹ See Rev. chap. viii. v. 2, &c. "The first angel sounded, and there follow'd hail and fire mingled with blood," &c. v. 8. "And the second angel sounded, and as it were a great sea or mountain burning with fire was cast into the sea; and the third part of the sea became blood," &c. v. 10. "And the third angel sounded, and there fell a great star from heaven, burning as it were a lamp, and it fell upon the third part of the rivers, and upon the fountains of waters." v. 11. "And the name of the star is called Wormwood; and the third part of the waters became corrupted; and many men died of the waters, because they were made bitter."

² "Poor dear Mural, what an end! His white plume used to be a rallying point in battle, like Morn's the Fourth. He refused a coronet and a triumph; he would neither suffer his soul nor body to be banaged."—Byron Letters.

³ Mural's remains are said to have been torn from the grave and burnt.

O o

of body, young man, cannot be taken as a compliment to the French—last line of the poem is not to be taken as a compliment to the French.

Pages 560-561 of the Byron volume where the manuscript page would have been in its right place with the poems relating to Napoleon and France.

needed clue. This page numbered 560 had been inserted by mistake between 558 and 559. I therefore turned to see in what company it would have been if placed overleaf, and I found that it would *then have been in its right place*, facing the poem, *Napoleon's Escape from Elba*, and another entitled *Ode to the French*.

Let us sum up the information so correctly given :

1. The Byron and Tennyson were standing close together.
2. A second book was to be given me.
3. My aunt had been recently thinking of Tennyson.
4. The Byron volume had two pages of a colour different from the rest, also illustrations, and an inserted special page.
5. One page was of a size different from those of the book and of another texture. (This I had probably noticed on first finding it and it may therefore be disregarded as evidence).
6. It had been creased or folded.
7. Some of its writing ran in a direction other than that of the book—
8. and alluded to a subject not strictly connected with Byron.
9. Examination would raise the question why it had been placed in its present position.
10. There was, or should be, a number written on this page.

One cannot think that such information, some of it relating to notes written sixty years previously, could have been discovered by the medium's psychic faculty, and most certainly it was not discovered by me. I had known nothing of these facts, and it is highly improbable that the majority of them would ever have been noticed but for my following up the reference to a special page and the hint that it was inserted in the wrong place. The only explanation that seems acceptable is the one given in the sitting; namely, that this evidence was devised and carried through by the memory and observation of my grandfather, assisted by my father and by Alfred, in whose possession the book had been.

Surveying the above material we find Memory, Telepathy and Sight.

Memory. It is an instance of memory by one who left earth some 60 years previously. This is not uncommon in first-class sittings. It indicates that memory is independent of the material brain, although so closely associated with it in our mundane experience. The claim of communicators that their present non-material body includes a non-material brain, suggests that even now man's etherial counterpart, which is said to interpenetrate his physical body, is essential to the exercise of intelligence and memory.

Telepathy. The ascertaining by the communicator of thoughts and intention in my aunt's mind may be classed with mind-reading or telepathy as known to us in spontaneous or experimental cases; though how it takes place is unknown.

Clairvoyant sight. The ascertaining of the position of the Byron book by the side of Tennyson's Works would appear to be an example of clairvoyance. And the weight of evidence points to that clairvoyance having been exercised by the communicator rather than by the medium or her control. Grant that the communicator visited Tenterden to make his observations, one asks, How did he *see* the titles and position of the two books standing together on that book-shelf? This question about sight and per-

ception always faces us in book-test experiments ; for that something tantamount to sight has been employed is evident from the accurate description so frequently given.

Remarks by communicators on this subject may be thus summed up : Sometimes they can see physical objects clearly, but at other times not ; my father says he has occasionally revisited a room to verify or extend his previous observations and found that he could now see practically nothing. Their vision for material objects depends on the presence of a psychic emanation, similar to, or possibly identical with, that which Feda (Mrs Leonard's control) terms "the power". This emanation would seem to be a go-between substance which is sufficiently akin to the Other World substance to be employable by our visitants, despite its earthly origin. It facilitates, or makes possible, the processes of communication, and its gradual exhaustion towards the end of a sitting progressively hinders results. A control is able to see all objects and persons within the area impregnated by this emanation. It would therefore seem that, while not itself luminous, the emanation makes visible to discarnates anything within its area. Hence the reason why mediums are often alluded to as "the light".

Since much evidence exists for communicators having perceived events and material objects in one's home, it seems that this emanation, in small quantities, is given off by ordinary people. Hence, in the case under consideration, we may suppose that my aunt's constant presence in her sitting-room had provided sufficient traces of the emanation to enable Alfred to perceive the juxtaposition of the books.

Communicators say that their etherial senses are adjusted to the realms which they now inhabit but not to our material world ; hence it may well be, as they assert, that some are better able than others to surmount the difficulties of observing physical objects and that, as with ourselves, some can exercise clairvoyance for material things while others entirely fail to do so despite persistent endeavours.

Considerable experience of proxy cases, in which unknown communicators came to my sittings to give evidential material for their friends on earth, has shown that some do well, others indifferently, while others completely fail. (See my article on Proxy Cases, *S.P.R. Proceedings* for May, 1933, p. 140.)

The probability is that my grandfather, after completing this particular page of notes, left it in the Byron at the appropriate place ; that he subsequently deemed it better to fasten it there and *inadvertently fixed it on the wrong side of the right page*. This mistake he may have noticed afterwards and seen no need to rectify, since the notes were for his use alone.

But how can this be harmonised with Alfred's reference to something which "used to be kept in the book and could be slipped in and out", something which he queried if I should find still there? The explanation came later, when, some months after these sittings, my cousin, the son of Alfred and Margaret, visited us. While telling him of this book test I placed the Byron in his hands, indicating the special page above described. After looking at it he turned over the leaves and finally found the "loose page" of which his father had spoken, one that could be "slipped in and out." This was a double sheet of exceedingly thin, blue writing paper, and was entirely covered by our grandfather's handwriting—some twenty

quotations from poets ancient and modern embodying ideas and phrases which Byron had used in his works.

This was something entirely different from my grandfather's description and evidently *not* the page which he had so minutely recollected. It would seem therefore that, while Alfred had remembered the loose page of blue paper, my grandfather had recollected another, one which he had carelessly gummed between the wrong pages, or rather on the wrong side of the right page of his Byron!

In this test we find three communicators successively taking their several parts. First my father, who questions whether his father will be able to remember anything about his notes. Secondly, my uncle, who recalls several facts about the volume which he had treasured after his father's death, and who referred to a "loose page" which could be slipped in and out. Thirdly, with my father came my grandfather, who, ignoring the loose blue page, spoke of another which he had better cause to remember, since he had fastened it in its wrong position. In giving his description of this he relied entirely on memory, having refused the opportunity of inspecting the volume in my study. That his recollection should have been so accurate after the lapse of some sixty years is remarkable.

RECORDS FROM SITTINGS RELATING TO THE BYRON BOOK

December 5th, 1930. My father controlling.

C. D. T. : I often wonder what Grandfather is doing now.

J. D. T. : He is leading a very satisfactory life and active in matters connected with earth.

C. D. T. : Especially with the Churches?

J. D. T. : Yes, and also in spiritualism, especially the growth of spiritual character. If that comes through psychical research, then Grandfather will be interested in that ; but he helps everything which he thinks will open the mind to the spiritual. He is interested in the welfare and progressive work of the Church, and in so far as he thinks psychic research will help the ministry generally, he works for it.

C. D. T. : Aunt Margaret writes that she has found Grandfather's old edition of Byron in which he had written marginal notes ; and she offers to give it to me.

J. D. T. : I think, Charlie, that will be very interesting. I wonder if he will remember anything at all about his notes.

C. D. T. : They would probably seem very unimportant to him now, something like our school spelling book would be to us.

J. D. T. : It is all very difficult ; things that seemed so very important when we were children we simply don't take the trouble to remember in adult life ; and so with much that seemed important on earth. If we are coming back for purposes of identification we try to remember them, but it must be difficult for some people to do so.

C. D. T. : And yet I understood that your memory on that side is perfect!

J. D. T. : We could do it, but we don't waste time ; we remember those things which are vital to us now. The mere fact that we *can* remember certain things does not make us remember them. We should only recall those unnecessary things for purposes of identification.

C. D. T. : So recollection with you, as with us, is an act of will?

J. D. T. : Certainly, else the whole thing would have to be written on one page and one would have to see every word of it at one glance. The different things and remembrances of life are on different pages, and we can turn them more easily than you can. So many of your pages are stuck together.

December 24th, 1930. The communicator is my Uncle Alfred, Aunt Margaret's husband.

Feda : Uncle Alfred is here.

C. D. T. : I am hoping to visit Aunt shortly. She has promised to give me Grandfather's volume of Byron.

Feda : Do you say she is going to give you one book? I thought she was giving you two.

C. D. T. : She only mentioned one.

Feda : Of course, if she only gives you one you can't say, "You were going to give me two," but perhaps you can somehow ascertain. There was something in her mind that suggested that you were to have two books. And, Oh! has she put the page in? Do you mind looking to see if she has put it in? There used to be something kept in the book that could be slipped in and out. He has forgotten just what it was, but he wonders if it is still there. Inside the book are two coloured sheets, as if the paper was either of two qualities or faded and tinted a little ; on opening the book you distinctly see this deeper shade.

C. D. T. : It will be interesting to look for that, because I have never yet seen the book.

Feda : Uncle Alfred has an idea that this book has illustrations ; he remembers something of them. Byrons are not usually illustrated. So notice that. He would like you to.

Wait a minute. Tennyson, has it been put near works of Tennyson, or has Aunt been thinking a good deal of Tennyson lately, or has Aunt got them mixed up? They are very dissimilar, but I got the thoughts so mingled—Tennyson and Byron. You might try and unravel this, would you?

C. D. T. : Yes, I will remember that when I go to see Aunt Margaret.

Feda : Your father says that Uncle Alfred is not so much in touch with Aunt as he, your father, is with your mother and with you. But Alfred has been with Aunt recently in the hope that you would be seeing her. And Alfred was very good about some things.

January 30th, 1931. My grandfather communicating.

Feda : Your grandfather has come.

C. D. T. : Is he going to speak about his Byron?

Feda : There was a loose page and he thinks it was not quite the same size as the other pages. There was quite a dissimilarity, and was it not of a different texture, a different class of paper too? It did not seem to belong, and yet it was there. It was just placed in, but did not really belong to it. If you felt its surface you would know at once that it was not really part of the book.

Had it got creased or folded? Grandfather's impression was that it had been creased or folded, and he thinks you will find it so.

Now this is important ; he says " lines going the opposite way to 'the book, something on the paper makes you feel it ought to be the other way about." He can't get it any better than that.

Would you see if something is slightly uneven near to the edge of the loose page, not quite perfect and square cut.

Your father is glad that Grandfather has said those things about it, else it might have seemed as if an ordinary page had broken loose, which was not the case. Grandfather did not wish to leave that impression; and he thinks of nothing else at the moment.

C. D. T. : Does he know what was on that paper and why it was placed in the book?

Feda : Yes, he knows. There should be something on it which is not strictly connected with the book. Something is, but something is not. He thinks there is something on that paper which will indicate to you something different from Byron.

I wondered whether he had numbered the page ; for there is something in his mind about a number. He thinks that when you look at it you will say, " I wonder why this was put in here." It is long ago and he can't at this moment quite recollect it himself. That is all he recalls.

C. D. T. : Are these recollections from olden days, or have you looked up these items?

Feda ; No, this is recollection. He would be afraid to try picking this up in your study. Your father suggested that, but Grandfather preferred not to try ; he said he would only go back in his memory.

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH

PART 175

PRESIDENTIAL ADDRESS

1948

BY W. H. SALTER

My sense of the great honour which the Council have done me in placing my name on the distinguished roll of Presidents of this Society, would be overwhelming, if I did not regard it, as I am sure I may, as a tribute to the work done for the Society by all who from its foundation have held the office of Hon. Secretary, and particularly by such of my predecessors in that office as through early death or other accident of circumstance never sat in the Presidential Chair. I would ask you then to bear in honoured and grateful memory today the names of Edmund Gurney, one of our Founders and the principal author of the first classic of our subject, *Phantasms of the Living*; Frank Podmore, whose chief book is still, after more than forty years, the best account of the early history of psychical research; and Everard Feilding, in his own line the best investigator that the Society has known.

It would be fitting, when remembering them, to recall to mind also Richard Hodgson, for many years Secretary of the American Branch, as it then was, and Alice Johnson, whose long service to psychical research included work as Secretary, Editor and Research Officer. How much rather would I now be listening to a Presidential Address from any of them, than launching out on one of my own!

Widely as they differed in opinion, on one matter they would have been united, namely in affirming that their individual efforts in psychical research—distinguished as these were—gained immensely in effectiveness from being part of an organised, corporate activity. They would one and all have repudiated any suggestion that the time and experience they so freely gave to the administrative side of the Society's work, humdrum as much of that is, were in any sense wasted.

It is a great advantage for any study, whatever the subject, to have the support of an established Society with good prospects of future continuance, a Society which can provide funds for research and publication, maintain a library and give those engaged in the study opportunities to meet and discuss their work. For a study not closely connected with any academic curriculum or professional interest the backing of such a Society is almost indispensable.

Psychical research is in that detached position now, and likely to remain

there for some time to come, nor in my opinion should we regret it. On the contrary, no worse fate could, I believe, befall psychical research than for it to become a sub-division of some more orthodox branch of learning, or for it to lose its independence too soon, before it has more completely exploited its own domain, and before there is a better understanding of its problems and methods in those provinces of science on which it abuts. It was only because psychical research from the start claimed to be an autonomous study that men and women trained in many different branches of learning—philosophy and scholarship, as well as science in its more restricted meaning—and with varied experience of life, were able to unite for its advancement on an equal footing, and to contribute that wealth of knowledge and thought drawn from many sources, from which our enquiries have profited.

The psychical researcher cannot be an expert in all the branches of specialised knowledge that from time to time his enquiries may demand. One and the same man cannot reasonably be expected to be a fully qualified physicist, psychologist, statistician, conjurer, doctor and photographer on successive days of the week. If he knows what expert to consult on each occasion, and how to employ the technical knowledge that expert can give him, he has the proper equipment, so far as concerns the auxiliary technique of his subject. But in one thing he must be himself a specialist all the time, and that is psychical research, and only by the practice of psychical research can he become a specialist in it. If in addition he has specialised knowledge of any of the other subjects above mentioned, so much the better. One of the advantages of a Society such as ours, which draws its members from so many walks of life, is that the investigator can find within our own ranks someone skilled in almost every auxiliary technique he is likely to need.

It is for psychical research, not only in this country, but wherever it is pursued as an impartial enquiry, that autonomy is claimed. We may, however, fairly congratulate ourselves that our Society has contributed a very large share to those achievements by which that claim can be justified. That it has the longest unbroken history of all Societies engaged in the same enquiry is partly due to world events, which have been less unkind to our country than to many others, but partly, I like to think, to that "uncompromising matter-of-factness" of the English mind, whose function our first President, Henry Sidgwick, suggested would be "to put the final question to the Universe with a solid passionate determination to be answered that *must* come to something".

We should, however, temper our insular pride by the reflection that our membership has included men and women of distinction from many lands, and that for about sixteen years (1889-1905) the American Society and our own were united, facts which should be borne in mind in considering our Society's record.

I ask you to note how much of the Society's achievement is due to corporate effort and organisation. First to be mentioned are the spontaneous cases, apparitions and the like. The systematic collection and analysis of these was a new venture, initiated at Cambridge and taken up soon after at Oxford, by groups of friends of whom some took the lead in founding the Society, and others joined it shortly after its foundation.

The first fruits of their labours are to be sought in *Phantasms*. A few years later the Census of Hallucinations was undertaken on the recommendation of an International Committee, and cases were collected in several countries. The organisation, however, was entrusted to the S.P.R., which followed up enquiries, tabulated the cases and was responsible for the Report. But it was not merely the machinery for conducting the Census that the Society provided. Much of the value of these cases—and the same is true of the large number collected in the half-century that has passed since the Report was published—is due to the fact that a highly competent Committee set up standards of evidence which were impersonal, and not framed to meet the subjective peculiarities of any individual mind.

Next in time comes the investigation of Mrs Piper, beginning of course in America, but continued by the joint labours of British and American investigators, who worked together so closely and so harmoniously, that it would be absurd to partition the credit between them. We may, however, claim for the Society the glory of having produced, in Mrs Sidgwick's study of Mrs Piper, the most complete psychological analysis of any medium so far published (*Proc.*, XXVIII).

Mrs Leonard's mediumship followed close on that of Mrs Piper. While it is not the subject of any single paper in *Proceedings* comparable to Mrs Sidgwick's study above mentioned, it is second only to that of Mrs Piper for the thoroughness with which it has been investigated by our members from many angles. At various stages, as for instance, in the study of the book-tests, the investigation was one in which the Society's officials were in close collaboration with groups of members. I do not believe that anything like the same advance in knowledge of this type of mediumship could have been achieved by students not welded together in one Society.

I do not propose to discuss here the bearing of the cross-correspondences on the problem of survival: but quite apart from that, their psychical and psychological interest is obvious. The group of automatists that produced them had its origin in the S.P.R., although it spread beyond our borders. The work of interpretation—and a colossal piece of work too—was done entirely within the Society, by a collective effort surpassing the powers of any single investigator.

To complete the account of the mental phenomena the experiments in telepathy and allied faculties remain to be mentioned. This work has been shared by workers in many lands, the American share being in recent years particularly notable. We cannot claim that the share of the Society in this department of research has been quite as large as in some others, but we certainly have no reason to be ashamed of it.

In every branch therefore, of that great attempt to extend the knowledge of the human mind to which psychical research is committed, our Society has done a large, in some branches an overwhelmingly large share of the work, the ability to *do* the work and the *value* of the work done being both enhanced by the support the investigators have received from the Society's organisation, and by the willing co-operation of their fellow members. No result could have been more gratifying to the long line of brilliant investigators, extending from the first Presidency of Henry

Sidgwick in 1882 to Mrs Sidgwick's Presidency of Honour in the year of our Jubilee, and including those whom I mentioned at the beginning of my Address, who willingly spared time from their own researches to make and keep the Society's machinery as efficient as possible.

On various occasions, when conferring with psychical researchers from foreign parts, I have heard the comment that, as practised in England, psychical research seemed to be a dreadfully dull business, and I have been commiserated with for having so few opportunities to enjoy those dramatic episodes which enliven night by night the séances of our confrères in other lands. I have, however, at no time regretted that our Society has chosen the path of "matter-of-factness" backed by "passionate determination", or seen cause to think that the record of our achievements would be the brighter if it were adorned with the names of all the physical mediums who have been boosted one day, exposed the next, and forgotten the day after, but lacked all mention of *Phantasms of the Living*, the Census of Hallucinations, Mrs Piper, Mrs Leonard, "the S.P.R. group of automatists", and that long series of experiments into paranormal cognition begun in the early days of the Society and still being pursued among us with undiminished vigour.

The Society has certainly not neglected the physical phenomena and has made considerable contributions to their exploration. In any history of psychical research prominence should be given to two pieces of work done by leading members of the Society in its early years, Hodgson and Davey's study of the relation between mediumistic deception and mal-observation on the sitter's part (*Proc.*, IV and VIII), a text-book for sitters which is not yet out of date, and Podmore's review of poltergeist cases in *Proc.*, XII. The latter did more than give a rational account of a type of occurrence that had long puzzled mankind: it showed a great advance in the understanding of psychological factors that are found at work in many branches of psychical research.

When this Society was founded, much destructive work was needed everywhere to clear away the accumulated lumber of uncritical ages, and not till that was done could constructive work in any department begin. As regards the mental phenomena, the Society soon found plenty of material yielding positive results, from among its own members and the public at large, in cases of spontaneous telepathy. It was also so fortunate as to make contact with a remarkable mental medium, Mrs Piper, very soon after her mediumship began. On this side of its work the constructive stage was accordingly soon reached.

For the physical phenomena both the conditions and the results were very different. They are not widespread, as "phantasms" are, and no one has even suggested taking a Census of Materialisations. Nor have we ever succeeded in repeating with any physical medium the experience we enjoyed with Mrs Piper—that of being practically the first in the field. It has been through all our history a discouraging chronicle of finding that mediums who had achieved fame in the production of phenomena for other investigators, failed hopelessly when sitting with researchers who could be guaranteed to combine with tact the maintenance of proper conditions of control. In a few instances some very meagre positive results have been obtained, but it is unlikely that the constructive stage

will be reached as long as control conditions elsewhere are so much laxer than those on which we insist.

But if the course of our enquiry be viewed as a whole, we have no reason to be dissatisfied with the progress made. We may not yet be in a position "to put the final question to the Universe" with a right to demand an answer, but it is becoming clearer in what terms that question will have to be put, and that in itself is a result not unworthy of the very eminent men and women—philosophers, scientists and others—who have been active members of our Society. It would take the whole afternoon to recite the list of them, with a summary of the work, in psychical research and in the world at large, for which each name is memorable. But, while it is not on the eminence of individual members, however noteworthy, but on its success in extending our knowledge of human personality that the Society will be judged, we may at least remind our critics of the improbability that so many men and women, so highly distinguished in so many different ways, should have been mistaken either as to the importance of our enquiries or as to the validity of the methods by which they have been pursued.

There has been a good deal of discussion lately as to our methods and standards of evidence, and the suggestion has been made that we should modify our procedure in order to attract the interest of persons whose training has been in more orthodox departments of learning. The object is praiseworthy, but the means proposed require scrutiny. Every form of organised enquiry is conducted in accordance with its own procedure and its own methods of ascertaining facts: law, physics, history, psychiatry, are a few examples that can be named. Each has worked out the method which it finds most satisfactory in solving its particular problems, having regard both to the subject matter of the enquiry, and to the course of events to which the enquiry is intended to lead. Clashes between them are not unknown; lawyers and doctors are in perpetual disagreement about insanity as a defence in criminal proceedings. It is impossible to switch over a system designed for one form of enquiry to another without creating confusion. But every specialised system, however complete the satisfaction it may give to those who use it, must justify itself as a legitimate offspring of common-sense, and must show that any divergences it may make from other systems are neither capricious nor arbitrary. Particularly incumbent is it on a relatively small body of enquirers, as we admittedly are, not to adopt methods peculiar to ourselves, and unused by larger and more highly organised groups, unless we can show good reason for doing so.

We are sometimes invited to make our researches conform to the procedure of science, to use that word in its popular, restricted meaning. I have heard and read many discussions on this subject which seemed to me wide of the point. Insufficient consideration seems to me to be given to the variety of ways in which psychical research and science are related, and I hope you will pardon me for taking up a little of your time in dwelling on them.

Several auxiliary techniques which the psychical researcher may from time to time need to use have been mentioned. Some of these are part of the domain of natural science, physics for example. Others, such as

medical psychology, claim a place within the scientific fold, but seem to have met with a mixed reception from those already in possession. Then there are highly organised bodies of knowledge, which can properly on that ground claim to be sciences, though not part of science in the narrower sense, as they may, like statistics, be applicable to many forms of activity not usually accounted scientific, such as business or public affairs. However useful any of these may be to the psychical researcher, none of them are an integral part of psychical research, and their applicability or otherwise to any type of psychical enquiry has no bearing on the question whether that type of enquiry is valid or not. If, however, the enquiry is such that one of these techniques, when applied to it, will produce information that could not be obtained otherwise, then the psychical researcher should use it, and if he uses it, he must use it as it would be used by an expert.

Next to be considered is the case where the same subject matter, and possibly the same facts, are under the examination of two groups of enquirers, each studying them from a different angle. An example familiar to members of this Society will be the study of hypnotism and dissociations of personality by psychical researchers and medical psychologists. If you take the men who were most prominent in the early years of the Society, here, on the Continent and in America, men such as Fredric and Arthur Myers, Gurney, Richet, William James, you have a group each and every member of which had some knowledge, considerable knowledge in fact, of medicine, and psychology, and psychical research, in whichever of those subjects he might have specialised. Is there any better way to ensure rapid progress in investigation than for the same material to be examined from several angles by groups each of which is at pains to keep acquainted with the aims, methods and results of the other groups?

Enquirers, however, seldom confine their opinions to the *facts* ascertained by their enquiry. There is usually some admixture, large or small, of *inference*, and this is where trouble often develops. Two bodies of enquirers each have a mass of ascertained fact, from which they launch inferences as to facts that they have not been able to bring under direct examination, and the inferences may be in conflict. The old dispute between physicist and biologist as to the span of time to be allowed for the development of life on the earth's surface, is an example. Each of the disputants had plenty of facts to back him, but not facts which extended to personal observation of the time, place and conditions under which life arose. So they had to make inferences, and for a time the inferences did not agree.

That was an instance of conflict between two highly organised scientific groups. But to leave this example and speak generally, in a dispute where each side relies partly on fact and partly on inference, two questions are material, which party has on its side the largest body of fact, and which party has on its side the body of fact, whether large or small, most directly bearing on the dispute and requiring the least amount of inference to make it relevant. The most difficult disputes are those where quantity is on one side and relevance on the other.

For psychical researchers this problem has arisen in different forms with

regard to both physical and mental phenomena. The reality of physical phenomena has been accepted after investigation by a few scientists of the highest eminence, such as Crookes and Lodge, but *not* accepted by the world of science at large. Why this difference? First, as to fact, scientists, including Crookes and Lodge, had a very large body of fact which they all of them accepted: there was a much smaller body of fact, or alleged fact, which Crookes and Lodge accepted after examination, but which scientists in general, with splendid exceptions such as the late Lord Rayleigh and his father, did not even bother to examine. Now as to inference, Crookes and Lodge had no need to draw any; if their facts were right, they took them the whole way. Those scientists who refused to examine the evidence on which Crookes and Lodge relied seem to have drawn the inference from facts common to Crookes and Lodge and themselves, that there were general principles or "laws" governing the physical universe of such wide applicability as to make any exception to or transcendence of them impossible. But so many supposed "impossibilities" are continually being proved true, that this inference was not a very safe ground for refusing even to examine what men of the status of Crookes and Lodge accepted. The alleged phenomena were within the scientists' own province: they had resources of personnel, of equipment, of finance far superior to any at the command of the small band of psychical researchers to whom they relinquished the task. If these resources had been brought to bear with an open mind, the problem of physical phenomena might by now have been settled.

Telepathy does not seem to be much more popular with science than, say, telekinesis, though here again, the supporters include a number of scientists of the highest rank. But the evidential status of the two subjects is widely different. Telekinesis, if it occurs, is a physical event, and is presumably governed by *some* physical laws; if not by laws already accepted, then by others not perhaps yet discovered. Telepathy, on the other hand, is not on the face of it a physical event at all. It exists when two minds have a common content, in such conditions and to such an extent that normal communication, *e.g.* by speech or writing, cannot be supposed to have produced it. Whether or not a situation of this kind has occurred is not a matter for natural science at all. It is much more like the problems with which the lawyer and the historian are concerned, but the procedure which in this matter holds the field is that of psychical research and no other. It was designed to deal with it, and has successfully dealt with it for more than sixty years. In defining this situation I have not mentioned the question whether the community of content between the two minds is attributable to chance. That is a separate issue, determinable in some instances by statistical method: but statistics, while much used in science, are also, as already mentioned, used in other connections.

If anyone chooses to explain telepathy by some physical law, such as radiation, the physicist and the physiologist are within their respective provinces in criticising that explanation. But they have no special claim as physicists or physiologists to sit in judgment on telepathy, or on any explanation of it that does not invoke physical processes. If the subject interests them, let them join our ranks, as several of their most eminent

colleagues have done, and learn our well-tested methods. That the results of our enquiries have won neither a knowledge nor an acceptance commensurate with their importance is a fact we all deplore. To set it right we must boldly appeal to Caesar, to that wide community of educated opinion from which are derived all specialised systems of enquiry, our own and those of the natural sciences alike.

We are all familiar with the sort of questions our friends ask when we try to explain telepathy to them, or to interest them in it. The questions vary from person to person, but, so far as my experience goes, they fall under three main heads: (1) Can you prove it? (2) how does it work? (3) what is the use of it? Now, each of these questions seems to me to call for a different kind of evidence.

First, where proof is concerned, there is nothing to equal experiment, preferably quantitative experiment. That was the position taken up by the founders of the Society who experimented on those lines themselves, and would have warmly welcomed the great extension of such experiment in recent years, and the improved technique now available. They were, however, far from neglecting or undervaluing the qualitative evidence obtainable by other methods. In almost every branch of psychical research sceptics are to be found within the Society, but I do not know of a single member who is familiar, whether by investigation or by study of the literature, with the evidence, qualitative and quantitative, for telepathy, who does not regard this faculty as proved, however little else he may accept. Outside the Society, disbelief, so far as my experience goes, is usually grounded on *a priori* objections divorced from study of the evidence on its own merits.

The second question, how does it work? is ambiguous. If it means, what is the process? all that can be done is to mention certain processes in order to indicate their improbability. Of these the most popular is "waves", and although this view does not lack weighty support, it seems to me most improbable if applied to the complex images and messages that are the content of spontaneous experiences, and have been the material for qualitative experiments. This is a notable instance of the misconceptions likely to arise if the more complex manifestations of this or any other psychic faculty are ruled out because they do not readily accommodate themselves to statistical analysis. There is not, as far as I know, evidence of any physical process capable of producing all the manifestations of telepathy with which we are familiar, and it seems to me quite possible that none will ever be discovered.

If, however, it is meant, what conditions favour telepathy? experiment of many kinds and spontaneous cases of the kind printed in *Phantasms* and later volumes of our *Journal* and *Proceedings* both seem to throw a good deal of light on it. I stress the spontaneous cases because in these the faculty is seen at work in its natural surroundings, and the effect of even the best experiments may sometimes be to produce an artefact, in which some of the essential features of telepathy are incompletely reproduced. But both types of evidence have their value. The spontaneous cases suggest that certain conditions of mind and body in the percipient, certain relations between agent and percipient, favour positive results. In experimental work, as Dr Soal has recently emphasised, classification

of percipients according to recognised psychological types has already in America provided valuable information, and might advantageously be more generally used.

The third question, what is the good of it? is the most difficult of all, but it must be faced, as the most rigid demonstration of the existence of a faculty will fail to carry full conviction, unless either its working is so familiar to us all as to need no further proof, or it can be shewn to serve some purpose, past, present or future. The type of evidence best adapted for proof is that which appears to exclude chance by pronounced deviation from the normal course of events, whether this evidence consists of outstanding scores at card-guessing, or of crisis-apparitions. Both of these are rare, relatively to the occurrences of everyday life, although there are now on record several hundred instances of each.

These being the conditions under which proof of the existence of telepathy must be established, can we reinforce the effectiveness of the proof by some indication of purpose? If there is one thing which on the face of it seems more purposeless than the ability, attributed to a few favoured persons, to acquire knowledge of the death of an uncle at the Antipodes by seeing his apparition an hour or so before they would have learnt of it by cable or wireless, it is the gift, apparently confined to even fewer, of being able to guess correctly whether the card which an experimenter is holding up in an adjoining room bears the picture of a zebra or a giraffe.

Were the only manifestations of telepathy of this kind, with no closer connection with the experiences and purposes of ordinary life, many of us might be inclined to suspect that, however perfect the proof might look, there was a catch in it somewhere. But those of us who belong to this Society know that more has to be taken into account than card-guessing and crisis-apparitions. Colour is added to the bare outline of the more strictly evidential matter by a large number of occurrences examined by our observers, by unpublished experiments, and, for many, by the spontaneous experiences of themselves and their friends. I see nothing objectionable in anyone allowing his opinion of the nature and purpose of telepathy to be influenced in this way, provided he can distinguish, as all members of this Society must be supposed to do, between impression and fact. Unless indeed we are sensitive to these undertones, we are likely to let many opportunities for investigation pass unnoticed.

The material with which the officers of this Society are called on to deal is astonishing. Letters have to be answered from all sorts and conditions of men and women all over the world, often relating the oddest incidents and asking the oddest questions. Personal interviews are sometimes even more extraordinary. Nearly all the material is of the greatest psychological interest, and much of it of psychical interest too. More of it would have been of value to psychical research if the narratives could have been verified earlier. In what follows I am referring to the residue of experiences which seem to contain a genuine paranormal element, but too small an element to bring the case "up to *Journal* standard". The facts are all right, but a reasonable person might doubt whether they showed any departure from the normal course of events, as determined

by chance-coincidence or the ordinary mental processes of the persons concerned.

You have been so good as to allow me the opportunity, as one of your officers, to see a good deal of this material at close quarters for several years, and perhaps the best return I can make for your kindness is to say what impression it has made on me, in what way it has added colour for me to the evidence for paranormal cognition as set out in our *Proceedings* and *Journal*, and what inferences I would draw from it, as pointers to possible future investigation.

The cases printed in the *Journal* vary a good deal in the degree in which they seem to require some explanation beyond chance or normal mental process. They may be arranged in a graded series, extending downwards into the cases which are reported to the S.P.R., but not printed. In some of these latter—and this is a point of some interest—the persons reporting them, ordinary sensible people, evidently see some significance which they cannot “put across” to the Society’s representative, who is bound to temper personal sympathy with critical detachment. It is very probable that the series does not end there, but might be continued to the point where the percipient himself is uncertain whether his experience has any paranormal element in it. He may have an indefinite feeling that it has, but if he has, he is inclined to keep it to himself.

In spontaneous cases we have no exact means of measurement to test whether paranormality does indeed “tail off” to the vanishing point, but the refinements of statistical analysis show that in experiments this does occur. The further question then arises, what justification have we for stopping the series at any point short of that where the normal and the paranormal merge, not only in appearance but in fact, or for assuming that communications between any two persons may be *either* normal *or* paranormal, but cannot conceivably be both at the same time?

When we see cases as they are set out in the *Journal*, with a descriptive label and serial number attached, we are inclined to think of each case, assuming the evidence to satisfy us, as a separate outbreak of paranormal power, and to overlook indications that the faculty operates continuously for considerable periods. Where successful experiments in E.S.P. with the same agent and percipient are spread over months or even years, it is hardly reasonable to suppose that the “rapport” (whatever that may be) between agent and percipient, which has given positive results throughout one evening, breaks off completely at its close, to re-establish itself on the next occasion that an experiment is tried. Continuity emerges even more clearly from the cross-correspondences. Let these be considered merely as complicated examples of telepathy, regardless of whether it be telepathy between the living or due on one side to discarnate agency. The automatists are sometimes kept busy for years on end developing some particular part of the pattern.

We have therefore a good deal of evidence suggesting that telepathy is, in one form at least, a continuous process, for long periods indistinguishable from normal mental processes; sometimes slightly but perceptibly divergent from them: and only very occasionally developing into such startling manifestations as crisis-apparitions.

But this view has its own difficulties. Why, it is sometimes asked, if

telepathy is so common, are we not receiving telepathic impressions all the time? Life would be unlivable if we were, and either they are not being transmitted or else some protective and selective mechanism has been evolved, that prevents their penetrating our conscious minds. It is here that it is useful to consider further the cases where the participants in an experience see more in it than they can get a benevolent but detached critic to see. We are all aware that members of groups, of the same family, for instance, or even persons more loosely connected by professional or local ties, can understand each other with much less explicit statement than would be needed if they were conversing with persons outside the group. That is a quite normal, everyday affair. We might say that for ideas of one kind the tracks between A.'s conscious mind and B.'s have worn smooth by frequent use, and for other ideas those between B.'s and C.'s. As each conscious idea has many subconscious ideas connected with it, this may mean that similar, but (to continue the simile) wider tracks are worn smooth in the subconscious minds of A. and B., and of B. and C., tracks wide enough to take a flow of paranormal as well as normal traffic.

This may give rise to those curious cases, usually called "taking the words out of one's mouth" with which many of us are familiar, in which A. says something which his friend B. was on the point of saying, but which neither A. nor B. regard as the natural outcome of what either had previously said, a point on which A. and B., if persons of average intelligence, must be taken as the best judges. Perhaps in these cases we have a valuable opportunity, if we care to use it, of observing the normal and paranormal at the point of divergence.

Conscious contacts between mind and mind through the normal means of communication are by the circumstances of life discontinuous and of short duration. When the normal contact is broken, the after effects of it may be to keep the minds of both parties—their conscious and their subconscious minds—moving on parallel lines for some time. But each party has his own conscious experiences, unshared in the normal way by the other, and these may deflect his mental processes so that, when normal contact is resumed, it is not established as completely as on the previous occasion. This, we know, frequently happens. If however, there may be supposed to be subconscious contact of longer duration, effective both during the periods of conscious contact, and also in between, the conscious contacts would be strengthened and made more complete, and the deflections due to the intervening changes and chances of life would be minimised.

We need not suppose that for every conscious normal contact between two minds, however slight or temporary, there is developed a corresponding, but more durable, subconscious contact. That may be true, but it seems to me more probable that subconscious contacts arise only from conscious contacts that *count for something* with the minds concerned. If, however, the subconscious mind be considered, so far as telepathy is concerned, not as a vacuum into which casual impressions from all quarters can crowd, but as at any given time occupied by, and in fact mainly composed of, a network of established contacts, it would seem to be well protected against stray intruders. The network would be a most complex affair, as it would need to accommodate reciprocal transmission

between A. and B., A. and C., and so on, and also to allow for the connections between A. and every other member of the group influencing the connections between all other pairs within the group and being reciprocally influenced by them; not to mention connections between one group and another, for few men and women limit their interests to a single group.

It has often been pointed out that to call telepathy "extra-sensory perception" or "paranormal cognition" may be convenient for lack of a better phrase, but conveys far too limited a conception. As Mr Tyrrell has shown with regard to apparitions, and as is obvious from the cross-correspondences (if these be regarded for the moment as instances of telepathy without prejudice to other interpretations of them), there is often a great deal of constructive work in which the subconscious minds of agent and percipient participate.

The view of telepathy outlined above is, of course, speculative. It is intended, that is to say, to place in perspective not only the more striking evidence, spontaneous and experimental, on which alone *proof* of telepathy can be based, but also those other rudimentary and marginal phenomena, which inevitably come to the mind of anyone who has had experience of psychical research in its many forms. If these occurrences depended on the report of any single individual, or but a few individuals, they would properly be discounted as subjective. But they are numerous and widespread enough to rank as part, and in my opinion a fairly important part, of the evidence bearing not so much on the question whether telepathy is real, but on the secondary issue of its nature and purpose. The evidence for this view is at any rate more substantial than for the conception of telepathy which seems to be popularly prevalent, that it is a collection of rare, disconnected, purposeless examples of the one-way transmission of information through space by some process akin to wireless, a conception of which every constituent item is almost certainly wrong.

At each stage I could, I believe, have quoted previous authority that would carry weight in this Society, the final passage for example of the late Lord Balfour's Presidential Address (*Proc.*, XIX, p. 396), but on the main conclusion, you will remember that in *Human Personality* (Vol. I, p. 112) Myers described the passion "which binds life to life, which links us both to life near and visible, and to life imagined but unseen" as "the inward aspect of the telepathic law". If I have from the material accrued since his day cited some that in however slight a degree adds substance to his prophetic vision, I am more than content.

With the conception of personality as something more than a simple unit we are all, mainly through Myers's writings, familiar. The internal structure of this composite entity, whether consisting of "strata" or of independent "selves", has been discussed fully by Lord Balfour, McDougall, Mitchell and others. I wish I could refer you to equally authoritative and illuminating discussions of the problem of the external structure of personality, as affected by telepathy.

Much has indeed been written on the "Group Mind", but the groups which seem to have been most studied, the crowd, the primitive tribe, the nation, are none of them groups within which telepathy, as distinct from mass emotion, would be expected to be effective. Hence even a writer as conversant with the case for telepathy as McDougall does no

more than mention it briefly in this connection.¹ It is not, however, with any supposed collective consciousness that we are now concerned so much as with the effect of telepathy within the group on the personality of each member; on what in Samuel Butler's phrase may be called his "vicarious existence". Butler, when he used this phrase, was thinking not of any telepathic linkage, but of the influence which a man, a great writer, or painter or musician, exercises over people unknown to him personally and even perhaps unborn during his own bodily life. It is a conception of respectable antiquity, of which Horace's *non omnis moriar* is a famous expression. But while a man's "vicarious existence" may affect more people for a longer time than any influence he could exert in the flesh, it is only by a figure of speech that it can be regarded as *his* existence. Political parties, for example, seldom carry out their founders' intentions even while their founders are still alive—"Wilkes was never a Wilkesite", as he protested—and the regularity with which within a generation they turn into something fundamentally different is so notorious as to absolve me from the invidious task of quoting examples. And indeed the limitations of "vicarious existence" are implicit in the form in which Horace expresses the idea.

But the case is different if we turn to the more intimate groups of family, friends and acquaintances which play so large a part in an ordinary man's life, and consider the possible effect of the interplay within each group of telepathy of the kind I have tried to describe. Where the group consists of mere acquaintances, the effect might be nil, but where the members are bound together emotionally, we cannot disregard the possibility that the normal communications within the group are supplemented and strengthened by telepathic linkage. This linkage may seldom be apparent even to members of the group, and may be quite incapable of proof to outsiders, but, as Dr Gardner Murphy has shown in recent articles in the *Journal* of the American S.P.R., it cannot be disregarded in assessing evidence for survival, since its effect may well be to create what he calls "a static surviving entity" on which the power of unconscious dramatisation frequently shown by mediums may confer a misleading appearance of personal activity. Everyone must judge for himself how far this conception accounts for such material, *prima facie* suggestive of survival, as he is himself familiar with, whether through the literature of psychical research, or in the form of the unpublished experiences of himself or his friends. As regards the material that has come to my notice from many sources, it seems to me that much is covered by this conception, but far from all. Until the "interpersonal field" has been explored, it would be idle to attempt to distinguish with any assurance between examples of paranormal action which could reasonably be supposed to originate there and those for which some other origin must be sought, but there have been incidents reported with Mrs Leonard, and I think with Mrs Piper, too, that have had a particular appropriateness to the occasion when they occurred, and are in that way not at all suggestive of ideas drifting into the medium's subconscious mind from the "psychic field" and receiving a dramatic form there. Nor does the element of design in the cross-correspondences seem to me accounted for on this theory.

Two most important tasks for psychical research are, in my view, first

¹ See his *The Group Mind*, pp. 28-30.

to define as clearly as is practicable the extent of the constructive ability of the individual subconscious, for which purpose it will be necessary to bring under survey much matter not entirely within our province, reviewing, for example, in the light of later psychological knowledge, the important chapter on Genius in *Human Personality*; and secondly to ascertain how far minds can collaborate on the entirely subconscious level in devising a pattern or design, and in carrying it out.

It is not, however, clear to me that in examining any piece of evidence that seems to point to some form of survival we are entitled to say, this is *either* a manifestation of an active personality, *or* of an "interpersonal psychic field", and to exclude the possibility that it may be both, any more than, in my view, we are justified in rejecting the possibility that an incident may be at the same time telepathic, and also part of a normal progression of mental events.

And just as in assessing evidence for a supposed case of telepathy, the correct and objective method is to assess that evidence on its merits, without importing complications arising from any hypothesis of the relations between mind and body, so in assessing supposed evidence for survival, the case should be judged on its merits without reference to those or any other extraneous complications. When the assessment has been made will come the stage of considering whether the result conflicts with any external system of fact, which is possible, or with some system of inference projected from fact, which is probable. No useful purpose is served by attempting to coalesce the two stages.

I began this Address by laying emphasis on the part that the corporate activities of this Society have played in promoting psychical research. The effect of the collective effort has been to enhance, and not to obliterate, the effort of each separate worker. In conclusion I sometimes wonder whether we are sufficiently alive to the importance of the collective factor in paranormal activity also. It is from Mr Whately Carington's group experiments that some of the most interesting developments in extra-sensory perception have arisen, and by general agreement it is through "the S.P.R. group of automatists", whose scripts claimed to be inspired by a group of communicators, that some of the most striking evidence for survival has been obtained. And now that our researches have made precognition respectable, I would hazard the prophecy that if the problems of telepathy and survival were approached in a less individualistic spirit, the supposed antithesis between them would be found to be illusory.

If you think I have been too speculative, I would claim the indulgence of a first-offender, and plead the encouragement given by Professor Price in his Presidential Address, when he said, "If people accuse us of being speculative . . . we must refuse to be frightened. We must postulate unverifiable entities and processes if we cannot get on without them." If you retort that I have claimed for myself a liberty of prophecy more properly belonging to trained philosophers, I would most heartily agree, knowing well that this Society has many members better equipped for theoretic discussion than myself, and enjoying longer prospects of activity in its work.

A TEST OF SURVIVAL

BY ROBERT H. THOULESS

THERE have been many attempts to prove survival after death which have taken the form of depositing a sealed envelope containing some object or message which the depositor hopes to be able to describe through a medium after his death. The intention is that the correctness of his description will be verified by the subsequent opening of the package and if it turns out to be correct this is taken to be proof that the description came from him and that, therefore, he must have survived his bodily death. There are, however, objections to this experiment. It is proof of survival of the depositor only if it is assumed to be impossible that the medium should obtain a direct psi cognition (clairvoyance) of the contents of the package. Since we do not know this to be impossible and indeed have good grounds for believing it to be possible, a correct description is not completely satisfactory evidence for the survival of the depositor. There is also the obvious practical difficulty of knowing when to open the package for verification. Many different descriptions may come (perhaps through different mediums) and we do not know which is authentic. Once the package is opened, the experiment is finished; no second attempt is possible. This would be satisfactory only if messages received through mediums were always unambiguous and always accompanied by unquestionable proof of the identity of the communicator.

These are obviously difficulties of different kinds. The first makes doubtful the value of a positive result as a proof of survival; the second makes it possible that one might fail to get a positive result even though a surviving spirit were able to communicate the contents of the package and were trying to do so. A satisfactory experiment should be, as far as possible, free from both kinds of difficulty. Ideally, the departed spirit should be trying to communicate something which could not be known to sitters or medium by any psi process, and it should be something which can be recognised as right when it comes however many false attempts have been made.

I have tried to devise and construct a test which seems to me perfectly to fulfil the second condition and to come as near as seems at present practicable to fulfilling the first also. Instead of having an object or written message in a sealed package, the test I suggest is an enciphered passage of which the communicator is to supply the key. The enciphered passage need not be in a sealed package; I suggest that it should be printed. Without the key, the passage cannot be read; the object of the communicator (*i.e.* myself after my bodily death) will be to supply the key. The test of the correctness of the key communicated will be that by its means the test passage will become meaningful.

The passage I have prepared is the following: CBFTM HGRIOTSTAUFSDN WGNIS BRVEF BQTAB QRPEF BKSDG MNRPS RFBSU TDTMF EMA BIM. It uses one of the well-known methods of encipherment with a key-word which I hope to be able to remember

in the after life. I have not communicated and shall not communicate this key-word to any other person while I am still in this world, and I destroyed all papers used in enciphering as soon as I had finished.

My intention is to see whether after my death I can give evidence of my continued existence by communicating the key necessary for the passage to be deciphered. It is the key and not the meaningful passage itself that I intend to communicate. I could not indeed hope to be able to give the original passage since I have largely forgotten it already and I shall probably have forgotten even what it was about in a few years; the key I hope always to remember. I do not think that any special sittings with mediums should be necessary. Some members of the Society will have sittings with mediums in any case, and it is to be supposed that I shall ostensibly come as communicator to those who know me well. If they will then remind me of this test and ask me for the key to the cipher, I will do my best to supply it.

An obvious advantage of this test over the sealed package test is that any number of attempts at communication of the key-word can be made and tried out. Testing the truth of a single false communication finishes the sealed package test, since once the package is opened, its contents are known. In the present test, on the other hand, a false key may be given in a communication and may be found to be false by the fact that it does not give a meaningful interpretation of the passage without, however, giving any clue as to what is the correct key. The second of the conditions mentioned above is, therefore, fulfilled.

The other objection to the sealed package test was the possibility of a correct answer being obtained by psi processes on the part of the medium or sitters without any necessity for the co-operation of the spirit of the person who made up the package. Let us consider this difficulty in more detail.

Assuming that, in the sealed package test, all normal means by which the medium (or sitters) might know the contents of the package have been eliminated, there seem to remain two possibilities of paranormal cognitive processes leading to a positive result of the experiment without the necessity for supposing that the description of the contents of the package has been supplied by the spirit of the person who made up the package. These are: (1) the possibility that there might be direct psi cognition of the contents of the package (clairvoyance), and (2) the possibility of psi cognition of the past mental processes of the person making up the package (retro-cognitive telepathy).

In the present test, the first possibility is plainly eliminated by the fact that there is nothing in the enciphered passage itself to be paranormally cognised. In the sealed package test, an object or message is concealed in the package. This object or message could be described by the use of normal perceptual processes if the package were opened and the contents looked at. The hypothesis of clairvoyance is that the clairvoyant person, without opening the envelope, can obtain the same information about its contents as would a normal person by looking at them. There is no parallel possibility in the cipher test. The enciphered passage is open to inspection by normal perceptual processes to clairvoyant and ordinary persons alike, and there is nothing more for a psi process to discover in

the passage itself. The key is in my mind and not in the object. A psi process which could discover the key must be a cognition of the content of my mind (*i.e.* it must be of a telepathic nature).

That someone might discover the key-word by psi cognition of my thought during my lifetime is undoubtedly a possibility. That would be merely a nuisance, and would necessitate reconstructing the test on a more elaborate plan. There might, for example, be a process of double enciphering by two people each ignorant of the key-word used by the other, or a serial encipherment made by any number of people all ignorant of the key-words used by the others. It would be far more difficult to bring such a more elaborate test to a successful conclusion since it would require a number of independent communications which could not, of course, be obtained until all the collaborators in the test had died. It does not, therefore, seem desirable to complicate the test in this way until the necessity for it is proved.

More serious is the difficulty that it is conceivable that there might be the possibility of a psi cognition of the key-word after my death even though nothing of my mind survived my bodily death. Plainly such a psi cognition must, in this case, be retro-cognitive (*i.e.* a knowledge of a past process in my mind), but there seems reason for supposing that retro-cognitive telepathy is a possibility.

I do not see how any test can be devised which completely eliminates this possibility. There is, however, a way in which such an explanation of a positive result can be rendered very improbable. I suggest that repeated attempts should be made during my life-time to obtain information as to the key-word through mediums. Suppose that these were all unsuccessful, while similar attempts after my death were followed by success. Then it would be reasonable to conclude that the factor producing success is not one that exists both before and after my death (the power of medium or sitters to obtain the key by telepathy) but is the respect in which the two periods differ—that after my death I am willing to communicate the key. It is undoubtedly an understatement of the matter to say that the possibility of obtaining the key by telepathy exists both before and after my death if my mind vanishes at the time of death; it should be far easier to obtain knowledge by a psi process from a mind still existing than retro-cognitively from one that has ceased to exist.

It is, therefore, an important part of the test that attempts should be made while I am still alive to obtain the key through mediums. I hope that members of the S.P.R. will co-operate in the test by making such attempts. I suggest that when this is done, whether or not there is any response, a note of the fact that the attempt has been made should be sent to the Research Officer of the Society, so that there may be a record of the number of attempts that have been made. If there have been a sufficient number of such attempts during my life and all have been unsuccessful while an equal or smaller number of attempts after my death have led to success, the conclusion that the key has been supplied by me as a still existing communicator and not through a retro-cognitive telepathic process of the medium or sitters will be very strongly indicated.

A further doubt may be felt as to whether the key might not be found by the normal process of rational inference, since it is commonly supposed

that a sufficiently skilled cipher expert can decipher any passage without knowing the key if he is given long enough time. This idea is, however, erroneous unless certain conditions are fulfilled. The cipher must be a simple one (such as a mono-alphabetic monographic substitution) or else the passage enciphered must be of considerable length. A short passage enciphered by a simple type of substitution does not indeed need an expert; the reading of such passages is often made a puzzle to amuse children. A long passage (or a number of passages) enciphered by a more complex method is more difficult to decipher without knowledge of the key, but it is said that an expert can do so with messages enciphered by most (but not all) systems if he is given sufficient time. The passage I have given is neither enciphered by a simple process of substitution or transposition nor, I think, long enough for it to be possible to use the methods adapted for breaking the less simple systems. I do not think that it could be deciphered by a cipher expert without knowledge of the key while it could easily be deciphered by anyone with an elementary knowledge of ciphers if he were told the system and given the key.

The possibility of the key being discovered by a cipher expert need not, however, depend on my opinion. The enciphered passage is open now to any who have expert knowledge of methods of reading cipher messages. I hope that members of the Society who know such experts will now, while I am still alive, submit the passage to these experts. If even cipher experts cannot discover the key while I am alive, no normal intellectual process could enable a medium (who is not a cipher expert) to do so after my death.

There is a further possibility which must be guarded against since it might make the test unworkable. It might prove to be possible for a sufficiently ingenious cipher expert to discover some system of deciphering the passage which made it into sense although he was not using my key and did not make it into the same sense as that of my original passage. This possibility is suggested by consideration of the fact that by simple letter transposition, the word *honorificabilitudinitatibus* has been converted into an assertion in Latin that the author of *Love's Labour Lost* was Bacon. Indeed it is theoretically possible that any short collection of letters could be made into a sensible passage by a sufficiently ingenious system of deciphering, even if the collection were really a random one. One way of dealing with this difficulty would be to make the passage longer, but although this would make an arbitrary system of decipherment more difficult, it would make it easier for a cipher expert to discover its real meaning. A better way seems to be to define within narrow limits what is the correct solution. When correctly deciphered my passage will be found to be an extract from one of Shakespeare's plays. This leaves the solution too wide for it to enable a cipher expert to be likely to be able to decipher the passage without knowledge of the key while making it too narrow for an erroneous system of decipherment to be mistaken for the true one.

Consideration of possible failure of this test to provide rigid proof would not be complete if we did not mention the possibility of fraud. I might, while still living, tell a medium or some future sitter what the key-word was with instructions to produce it as coming from me in a seance after my death. This is certainly theoretically a possibility and I cannot see that any form of test would completely exclude it. It is, however, very

improbable for several reasons. First, I happen to be an honest man, and I think I am known to be scrupulously so in connection with my scientific work. Secondly, I should have no motive for the deception. Even supposing that, if I were anxious to prove a case, I should be willing to employ dishonest means to do so, no hypothesis about my convictions with respect to survival would seem to give a reasonable motive for cheating here. I must either believe in survival, or not believe in survival or regard the matter as doubtful. If I do not believe in survival, I shall not want to produce spurious evidence for its truth, unless for the eccentric and improbable reason that I suppose it desirable that men should believe in survival and am willing to lie to promote this end. If I do believe in survival, I have good grounds for hoping that the experiment will succeed without any cheating, and it would be unreasonable for me to try to produce false evidence. If I regard it as a matter of doubt, I have no motive for wishing dishonestly to establish a case one way or the other.

The improbability that I would cheat even if I had a motive for doing so, and the fact that I have no motive make this explanation a very improbable one but not impossible. Success of this test would not, therefore, be coercive proof of survival, since it might be judged by some that survival was of the same order of improbability as a motiveless deception by an apparently honest ex-President of the Society for Psychological Research. It is, however, somewhat unreasonable to suppose that any single test can produce coercive evidence of anything, since it does not seem possible to devise a test which does not at some point depend on the reliability of some person or group of persons. The strength of the evidence need not, however, depend on a single test. If this test is successful, I hope it will be repeated. If there were a number of similar successes, the probability that all were due to a number of independent and motiveless frauds would become negligibly small.

Finally, let us consider one possible obstacle to the success of any such test as this if survival is a fact and my surviving spirit is able to communicate through a medium. It may be difficult for the departed person to remember what he has to communicate. The communicator is suffering from the disadvantage that he can no longer have the use of his material brain. It may well be true that brain traces are not essential to remembering, but there is good reason for supposing that it is by using them that we commonly do remember. If any of us had formed the habit of remembering things by recording them in a pocket book and we then lost the pocket book we should be likely to show many lapses of memory. We could have trained ourselves to remember by other means, but in fact we have learned to rely on the pocket book, so its loss is a serious interference with our capacity to remember. The departed communicator who has lost his material brain may be in a similar situation, so, although he can correctly remember a number of things, he may find it difficult to remember particular things that he wants to remember. I have some hope that this is likely to prove a less serious obstacle to the present test than to the sealed package test since the key to a cipher may be more easily remembered than a message, perhaps of some length, sealed up in an envelope. But it may happen that I shall find it difficult to remember the key when I want to communicate it.

In order that my memory may be jogged if necessary, I will also deposit with the Society a sealed envelope which contains a clue which should remind me of the key although it should not suggest it to anyone else. I should want this to be opened and the contents communicated to me only if I failed to give the key without this help. I should indeed very much hope that this necessity would not arise since the opening of the envelope would decrease the rigidity of the test. However peculiar to myself might be the knowledge which led from the contents of the sealed envelope to the key, it is theoretically possible that anything which reminded me of the key might also suggest the key to some other person. Also the opening of the envelope would violate one important condition of the test—that the situation with respect to both normal and paranormal means of discovering the key was the same after my death as before except for the one fact that after my death I should have the intention (if I survived) of communicating the key to whoever asked for it.

Appendix—A Supplementary Test

It is theoretically possible, although I think unlikely, that a sufficiently skilful cipher expert may decipher the passage I have given as my first test without previous knowledge of the key if he works at the problem hard enough. The cipher system used is not theoretically “unbreakable” although the shortness of the passage will be, I hope, an insurmountable obstacle to the breaking of it. It seems, therefore, worth while to add a second message in an absolutely unbreakable cipher system, *i.e.* in one which cannot be deciphered without knowledge of the key although the system of ciphering is fully known. A system fulfilling this condition, which also fulfils the condition that the key can be easily communicated cannot be a simple one. I will give the passage and then explain the system used and the kind of key that should be communicated after my death.

The passage is the following: INXPB CJKGM JIRPR FBCVY
WYWES NOECN SCVHE GYRJO TEBJM TGXAT TWPNH
CNYBC FNXPB LFXRV QWQL.

The system of the above cipher is based on the Vigenère letter square :

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ABCDEFGHIJKLMN OPQRSTUVWXYZ
BCDEFGHIJKLMN OPQRSTUVWXYZA
CDEFGHIJKLMN OPQRSTUVWXYZAB
DEFGHIJKLMN OPQRSTUVWXYZABC
EFGHIJKLMN OPQRSTUVWXYZABCD
FGHIJKLMN OPQRSTUVWXYZABCDE
GHIJKLMN OPQRSTUVWXYZABCDEF
HIJKLMN OPQRSTUVWXYZABCDEF G
IJKLMN OPQRSTUVWXYZABCDEF GH
JKLMN OPQRSTUVWXYZABCDEF GHI
LMNOPQRSTUVWXYZABCDEF GHIJ
MNOPQRSTUVWXYZABCDEF GHIJK
NOPQRSTUVWXYZABCDEF GHIJKL
OPQRSTUVWXYZABCDEF GHIJKLMN

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PQRSTUVWXYZABCDEFGHIJKLMNO
 QRSTUVWXYZABCDEFGHIJKLMN
 RSTUVWXYZABCDEFGHIJKLMNO
 STUVWXYZABCDEFGHIJKLMNO
 TUVWXYZABCDEFGHIJKLMNO
 UVWXYZABCDEFGHIJKLMNO
 VWXYZABCDEFGHIJKLMNO
 WXYZABCDEFGHIJKLMNO
 XYZABCDEFGHIJKLMNO
 YZABCDEFGHIJKLMNO
 ZABCDEFGHIJKLMNO

The usual method of using this system is to choose a key-word which is written repeatedly over the passage to be enciphered. The letter used in the cipher is that found at the intersection of the row starting with the letter in the original message with the column headed by the letter of the key-word immediately above it. Thus if the key-word were *crab* and the message to be enciphered were *There is no death*, the process of encipherment would be as follows :

CRABC RA BC RABCR
 THERE IS NO DEATH
 VYESG ZS OQ UEBVY

which written in the usual five-letter blocks becomes : VYESG ZSOQU
 EBVY.

This, however, is far from an unbreakable system since the periodicity imposed on the enciphered message by the constant length of the key-word makes it fairly easy to decipher a not too short passage without previous knowledge of the key. This periodicity may be avoided by using as key a continuous passage of length equal to or greater than that of the passage to be enciphered, but this also does not avoid the possibility of breaking the cipher by rational processes, since use can be made of the fact that both the key and the enciphered passage are meaningful and will have the frequency characteristics of meaningful material.¹

This difficulty may be avoided by using a continuous key composed of a random sequence of letters. Some way must, however, be adopted of obtaining such a random sequence by a method which can be communicated. I have used the following method. Each word in a continuous passage is replaced by a single letter which is obtained by adding up the serial numbers of the letters in the word (*i.e.* 1 for *a*, 2 for *b*, etc.), and then taking the letter whose serial number is this total or, if the total is greater than 26, taking the letter whose serial number is the remainder after division by 26. In order to prevent any single letter frequency characteristics resulting from the varying frequencies of words, all second and later repetitions of words already used are omitted. Words joined by a hyphen are treated as two words.

Let us, for example, suppose that the key passage is Hamlet's speech beginning : "To be or not [to be], that is the question. Whether 'tis

¹ I am grateful to Mr D. Parsons and another critic for demonstrating the possibility of breaking such a cipher.

nobler in [the] mind [to] suffer . . .". The words enclosed in square brackets are repetitions which must be omitted in constructing the key-letter series. The serial number of *t* is 20, while that of *o* is 15. $20 + 15 = 35 = 26 + 9$; the first letter of the key is, therefore, the ninth letter of the alphabet which is *I*. Similarly the word *be* must be replaced by *G* since the serial numbers of *b* and *e* are 2 and 5 respectively, and the sum of these is 7, the serial number of *G*. In the same way "or" will be replaced by *G* and "not" by *W*, and the series of letters goes on: WBGPIVNW, etc.

If we used this series as key to encipher the passage already discussed, we get the following result:

Key-letter series :	IGGWW	BG	PI	VNWN
Original passage :	THERE	IS	NO	DEATH
Enciphered passage :	BNKNA	JYCWY	RWGB	

It is to be noted that any enciphered passage obtained by this process from a given original could also have been derived from any other original passage whatever of the same length by the use of a different series of key-letters. For example, the enciphered passage already obtained BNKNA JYCWY RWGB might equally well have been derived from the original passage "Bloaters for tea" if the key-letter series had been ACWNHFK-KRKADCB. Thus:

Key-letter series :	ACWNHFK	RKA	DCB
Original passage :	BLOATERS	FOR	TEA
Enciphered passage :	BNKNA	JYCWY	RWGB

From this possibility of a given enciphered passage being derivable from any original passage by means of some key-letter series, it follows that a passage enciphered on this system is absolutely unbreakable unless the key series is known, provided that two conditions are fulfilled: (i) that the key series of letters is a random one, and (ii) that only one passage is enciphered by the key series used. The second condition has, of course, been fulfilled in this test. It is clear that this is necessary since a cipher expert might theoretically discover the key if he had two passages enciphered by the same key, since he could utilise the fact that the key series was one which gave a meaningful content to both messages and it is extremely improbable that more than one key series could be found which fulfilled this condition.

A more difficult question is whether a series of letters obtained in the way described above is a truly random one. This can only be settled by finding out how closely the conditions for randomness are fulfilled. It is to be noted that it is not necessary to demonstrate that a long series of letters derived in this way would show no departure from randomness. All it is necessary to show is that the series actually used does not show significant departure from randomness. In the letter series I have used, I have counted the number of letters which appear once, twice, etc., and compared these with the expected distributions in a random series. I have also done the same for the frequency of the first 78 letter pairs. The expected distributions are those of the Poisson series which are a close

approximation to the more correct logarithmic series. The results are as follows :

Single letter distributions

Frequency	0	1	2	3	4	5	6	7	> 7
Observed	0	5	8	5	3	1	3	1	0
Expected	1.3	3.9	5.8	5.8	4.4	2.6	1.3	.6	.3

Distribution of letter pairs

Frequencies	0	1	2	3	> 3
Observed	603	69	3	1	0
Expected	602.5	69.3	4.0	.15	0.0

In both cases it is clear that there is no significant departure from randomness. The key series is, in the length used, effectively a random one. The conditions for unbreakability are, therefore, fulfilled.

It is not in this case necessary to give any indication of the nature of the original passage. The possibilities of arbitrary decipherment are unlimited, but the distinction between a correct and incorrect decipherment is sufficiently indicated by the fact that the key-letter series in a correct decipherment must be a series of letters obtained in the way described above from some identifiable passage in a printed work. That more than one such passage would give a meaningful interpretation of the enciphered passage is almost infinitely improbable. My aim will be to indicate after my death the passage from which the key series of letters has been derived.

I think it should be regarded as strong evidence for my survival if I manage to communicate the key for either passage after my death, if also attempts made by similar methods before my death have failed. It would be still better if I could communicate both, particularly if they were communicated through different mediums to different sitters.

I have already suggested that this test should not depend on any single communicator, and that it would be worth while for other members of the Society to prepare similar ciphered passages to which they may hope to supply the key after their deaths. It has been suggested to me by Mr D. Parsons that my method of encipherment may involve too much calculation to appeal to other members of the Society, and he suggests a simpler method. This would still use the Vigenère square but the key-letters would be obtained by taking the third letter of every word in the key passage, words of three letters or less being ignored. Thus from the passage : "To be or not to be, that is the question. Whether 'tis nobler in the mind to suffer . . .", one would derive the key series AEEBNF, etc. This would not be a truly random letter series since single letter frequencies would be much the same as those of ordinary meaningful material. On the other hand, frequencies of two letter and three letter combinations would probably be near enough to randomness to be of no help in breaking the cipher. While, therefore, not demonstrably unbreakable, this system would probably give a cipher not breakable in practice provided that the passage enciphered was not too long, and the key series was not used more than once. Those intending to make this

test should also consider ease of remembering and communicating in making choice of the key passage.

Additional note. I have received some remarks on my second passage from a cipher expert. He agrees that a passage enciphered with a truly random letter series as key would be theoretically unbreakable. On the other hand, he considers that, although a short simple message enciphered by my system is likely to be secure in practice, it is not theoretically unbreakable. He suggests two possibilities of breaking: (1) by listing the commonest words in the English language with their letter equivalents and combining these with the commonest plain-text letters, or the commonest word pairs combined with the commonest plain-text letter pairs; (2) by considering that the person making the cipher is more likely to choose passages from some sources than others, *e.g.* the Bible or Shakespeare is a safe bet, and a team of people working for a long time could try out the whole of the Bible and Shakespeare. I think it is clear that the second method would take a far longer time than anyone is going to devote to this task. To work through Shakespeare and the Bible would take a number of man-years to be reckoned in centuries without mechanical aid, and it would be large even with mechanical aids. Then it might fail because the author may not have done the obvious thing but have chosen a passage from Molière or the Analects of Confucius. Nor does the first method seem really practicable for a short passage. The number of possible two-word combinations is so enormous that a process of trial and error might be continued for years without any certainty as to any letters in the enciphered message.

I must, however, agree that the system is not theoretically unbreakable. It seems to me, however, that all that is important in the test is that the cipher should not have been broken and, for this purpose, practical unbreakability is all that is required. I do not, therefore, propose to add a third passage in a theoretically unbreakable cipher system since I think it would reduce the chance of the success of the experiment if I tried to burden my memory with a third key.

In case, however, somebody else wants to try the experiment with a theoretically unbreakable cipher, I will here suggest a method which the cipher expert referred to above agrees to be theoretically as well as practically unbreakable. What is required is a truly random letter series for key, which however depends on some supplementary key to be communicated by the spirit of the person making the cipher. This can be attained by making, first, a random series of letters, and second, a series derived from some passage in the manner described above, and by some means combining the two series. Suppose, for example, the random letter series is: BHRFYJWJBRIATY (derived from a table of random numbers), while the supplementary key-letter series is that derived above from "To be or not to be, etc.". These two series can be added together (*i.e.* the corresponding numbers can be added and 26 subtracted from the sum if greater than 26). Thus:

BHRFYJWJBRIATY (random letter series)

IGGWVBGPVNWNU (letter series derived from key passage)

KOYCVMDZKNWXHT (sum of above two series)

This sum, which is itself a truly random series however great may be the departure from randomness of the series derived from the key passage, is then used for enciphering the text in the manner already explained. If the text to be enciphered is, as before, "There is no death", the enciphered passage becomes :

Key letter series : KOYCV MDZKN WXHT

Original passage : THERE ISNOD EATH

Enciphered passage : DVCTZ UVMYQ AXAA

However long the passage might be, it would be absolutely unbreakable while the random series and the key passage were unknown. It would also, of course, be unbreakable if the key passage were known but not the random series. If the random series were known but not the key passage, the position would be the same as that of my second passage, not theoretically unbreakable but practically so.

This brings us to the main practical difficulty of this method. It, to some degree, gives up the advantage of the possibility of repeated attempts at verification without altering the conditions. For the random series could not possibly be remembered by the communicator so it must be deposited in a sealed package at the rooms of the S.P.R. This sealed passage must be broken after the communicator has ostensibly given the key passage in order that verification may take place. The random series is then no longer unknown. I do not think this matters much in practice since the opening of the sealed package containing the random series could be done by a few responsible officials of the Society who would seal it up again without making a copy and who would not try to remember it or be at all likely to succeed if they did try. So the position for a second attempt at verification is virtually the same as for the first. The business of verification would, of course, be much more trouble than by the method I am using.

Since I am trying to encourage other people to carry out this experiment as well as myself, I ought perhaps to emphasise that it is a necessary condition of unbreakability that only one message should be enciphered with one key. Even a random letter series would not give an unbreakable cipher if the same letter series were used to encipher more than one message. I should also perhaps add that the cipher expert comments on the system proposed by Mr Parsons (deriving a key from the third letters of words in a running text) that, in his opinion, it would be quite insecure.

(All opinions expressed by contributors to Proceedings, whether they are officers of the Society or not, are solely the personal responsibility of the authors. Recommendation by members of the Committee of Reference to publish a paper is not to be taken as implying necessary agreement on their part with opinions expressed or statements made in the paper.

Owing to Professor Broad's absence from England at the time when the MS of the following article was circulated to the Committee of Reference, the MS was not submitted to him before it was accepted for publication.)

THE INVESTIGATION OF SPONTANEOUS CASES

BY D. J. WEST

INTRODUCTION

PSYCHICAL research can be divided conveniently into three classes of investigation: experimental E.S.P., mediumship and spontaneous phenomena. The last group—which includes premonitory dreams and visions, death wraiths, hauntings and the like—is in many ways the most instructive and certainly the most exciting.

In ordinary sciences, planned experiment has replaced passive observation. In psychical research, analysis of spontaneous happenings plays a large part still, for the simple reason that we are as yet so ignorant of the nature of apparitions that they cannot be produced at will for the purpose of experiment.

This cardinal fact tends to be overlooked in discussion on the evidence for the supernormal, in which mediums and experiments are given prominence, while spontaneous phenomena are forgotten. In point of fact, spontaneous cases have been known and commented upon through history, long before experiments were thought of and before anyone had heard of a medium. It is in such cases that the clearest instances of apparent telepathy have been recorded, and we certainly cannot afford to neglect them while experimental work is yielding such uncertain results.

Arguing from the analogy of other sciences, it would be natural for the early psychical investigators to regard the collection of cases as no more than a means of drawing attention to the possibility of E.S.P. No doubt they thought that experiment would confirm the stories they had collected. Nowadays it is clear that the results of experimental work are meagre compared with what is reported in spontaneous incidents.

It is important, therefore, that spontaneous cases should be investigated with a view to obtaining clear-cut independent evidence for the paranormal.

In discussing spontaneous cases with people who have read reports in *Proceedings* and *Journal*, the present author has been surprised by the wide difference of opinion on their cogency as evidence for the supernatural. One reader of Mrs Sidgwick's collection of cases in *Proceedings*, Vol. XXXIII, said she could never doubt again, but another, equally intelligent and scientific in outlook, said he was bitterly disappointed to find the famous S.P.R. cases so pitifully inadequate.

The reason for this wide difference in the assessment of case reports is the difficulty of deciding what allowance should be made for normal possibilities, such as chance coincidence and unconscious exaggeration. The investigator cannot influence the course of the phenomena, he cannot control the circumstances in which they occur, his rôle is in fact hardly more than an amanuensis for the people whose experiences he is studying. However well set out the material of the final report, the fact remains that it is based upon the testimony of unskilled observers who are often emotionally implicated in the phenomena they describe. In such circumstances it is extremely difficult to form a balanced judgment. Some people discount far more than others, and it is impossible to say who is right.

It will be seen that the obstacles in the way of making out a water-tight case for the supernormal on the basis of spontaneous incidents are formidable. In this paper, some of these obstacles are considered in detail, with the purpose of finding out how far they have really been met already by past records, and what else is needed in the way of investigation before the present *prima facie* case can be said to be scientifically established. It is too much to expect any sort of post-mortem analysis of controversial questions of evidence to result in general agreement, but that should not stop us studying the pros and cons of the situation and trying to formulate a reasoned policy for future research.

There is need for a survey of this kind. Since the Society for Psychical Research was founded over three-score years ago, many avenues of investigation have been explored and countless facts collected. Although an enormous body of evidence has been built up, it is unfortunately not very accessible. The results of many years of patient labour are bound up with innumerable arguments and counter-arguments, criticisms and counter-criticisms, forming a great mass which is scattered among some eighty packed volumes of *Proceedings* and *Journal*.

If we are to appreciate the meaning of all this material, if we are not to lose sight of the general trend, we need from time to time to review the position and take stock of the salient lines of evidence.

PART ONE

PRECOGNITIVE DREAMS

Precognitive dreams deserve treatment in a separate section because the problems of evidence involved are rather different from those in other types of cases.

In the first place, the precognitive dream is by far the commonest reported psychic incident at the present time. This has not always been so. The records of fifty years back are predominantly apparitions of the dying, but since then the emphasis has transferred from apparitions to dreams.

In *Proceedings*, Vol. XLII, p. 94-98, there is a list of all the cases of precognition printed by the Society for Psychical Research. Some of these precognitions came as dreams, others were in the form of hallucina-

tions. If this list be divided into two equal parts, the ratio of hallucinations to dreams in the first chronological half is twice what it is in the second half.

It may be that the change is only apparent. Early investigators were inclined to dismiss dream cases as unevidential, and it is possible that many more cases were actually reported at that time than the published records suggest. If there really has been a change, it may be due to people taking more notice of their dreams as a result of the attention paid than in psycho-analytic literature. Whatever the reason, the fact is that the majority of cases sent to the Society of Psychical Research nowadays are dreams.

An interesting point about psychic dreams is that they are so often claimed as precognitions. Other kinds of psychic experience, particularly the apparitional cases, are usually said to coincide with some internal event rather than to precede it. The common saying, "you've broken my dream", is an expression of the widely held idea that dreams anticipate the dreamer's future experience.

The outstanding argument against allegedly precognitive dreams has always been that of chance coincidence. Millions of people are having dreams every night and it would be surprising indeed if now and then they did not correspond with a future event. In his analysis of dream cases, (1),¹ Saltmarsh disposes of this argument very briefly. "Although," says Mr Saltmarsh, "millions of people dream every night, comparatively few remember their dreams, and still fewer have dreams of the very impressive character which so often marks the premonitory cases."

This is not a very satisfactory counter-argument. For one thing, many apparently precognitive dreams are in no way different from ordinary dreams. They are only recognised as precognitive after they have been fulfilled. It is true that the majority of dreams are forgotten very quickly, but those that happen to "come off" will be more fixed in the mind and retained much longer. The very fact of paying attention to dreams and looking for a precognitive element, will cause them to be remembered more easily. In certain cases, it may be that a chance resemblance recalls a dream that would otherwise have been permanently forgotten. These points are well illustrated by a lady correspondent who wrote to us in May, 1947 after hearing broadcast on precognition by Professor Broad. She wrote as follows :

"I have had [precognitive] dreams for many years—since 13 or 14 years of age . . . I am now 44. . . .

"I dream very extensively every night and can remember details for many years. Naturally it is not until the event fulfils the dream that I recognise it—one could not walk about expecting every dream to come true."

The correspondent was asked if she would make a note of her more striking dreams and post them to the Society before the fulfilments. To this suggestion she replied :

"I feel it would be very difficult to send an account of a dream before the event—as it would mean keeping a day to day account of every dream one had—just in case one should be fulfilled.

¹ Figures in brackets refer to the list of sources given at the end of this paper.

"It is not usually the most striking ones that come true. . . . Some people might say that it is all coincidence—but apart from the fact that they happen too often to be coincidences—there is the feeling that goes with them [when they are fulfilled].

"As a young child I always used to think I had done the things before—but when I got to the age of 14 or 15 I got it more clearly and realised that I had dreamed it before."

This last comment, about the feeling of going through an experience that has happened before, raises another point. There is a common illusion of memory—referred to as the sense of *déjà vu*, (2), which is a sort of false recognition—the person thinks he has seen the situation before when, in fact, he has not. It is a recognised phenomenon of mental illness, (3), but also occurs in the normal person in states of fatigue. The present writer has experienced the illusion when on occasions a person has said something to him which he felt he had heard before. Without asking a direct question, it has been impossible for him to tell whether the sentence had been repeated because of his inattention, or whether it was actually being spoken for the first time. It is possible, when a person remembers a dream for the first time on encountering the reality, that the memory is a false one—a case of *déjà vu*.

To return to the other points in the letter, this particular dreamer is quite clear that her premonitory dreams are no different in quality from her other dreams. In this she is in agreement with most dreamers. The dream which is unusually vivid, almost an hallucination, is the exception rather than the rule in precognitive cases.

Again, this particular lady says she remembers her dreams well, and that is the experience of quite a number of the people who report precognitive cases.

In assessing reports of precognitions, the scope for chance coincidence is very wide if the premonitory impression does not come in some form that is exceptional for the person concerned. Otherwise, the suspicion is that the reported case which was fulfilled is a selected coincidence from a large number of instances which were not fulfilled. It is important to bear in mind that when the premonitory impression is said to be of a vivid and exceptional character we have only the unsubstantiated word of the percipient for it. Although a very vital point in the chain of evidence, it is one on which corroboration is by the nature of things impossible.

From the point of view of critical assessment, therefore, we are more or less bound to regard all dream fulfilments as drawn from an indefinitely large population of non-veridical cases.

Mr Saltmarsh, in discussing further the hypothesis that dream fulfilments are only chance coincidences, says that even supposing there are millions of dreams remembered, the number of subjects which may be dreamed about is practically infinite. The chances that any particular subject will enter into a dream on any particular night is very small.

Now this is a doubtful argument. The fact that a particular subject is unlikely to be dreamt at a particular time has little bearing on the question. Even taking one individual, if he has the usual quota of dreams, and a good many waking experiences, there are bound to be some chance fulfilments in

the course of a lifetime. In actual fact, there are thousands, if not millions of people having dreams every night, and the chances are correspondingly multiplied. It is difficult to realise how large an allowance must be made for chance coincidence. The simple experiment of reading an article and listening to a broadcast talk simultaneously will show how often quite startling correspondences are produced by chance.

It is sometimes said, where a dream is mentioned to an independent person before its fulfilment, that this rules out the possibility of chance coincidence. We know then that the case has not been selected from a number of dreams, only one of which was fulfilled. The fallacy in this argument is that the dreamer may be in the habit of relating her dreams to different people, in which case it is still possible that the reported case has been selected. Only if a number of dreamers all send their predictions to a single authority—the Society for Psychical Research for instance—could a reliable assessment be made. In that event, it could be possible for the authority to publish an unselected collection of predictions and find out what proportion had come true.

Unfortunately, this ideal is hardly ever realised in practice. Like the correspondent who has been quoted, most dreamers, however sure they may afterwards claim to have been about their premonition, hardly ever think of sending their prediction to the Society. However, there are a few cases in which predictions based upon psychic impressions have been deposited with the S.P.R. before fulfilment.

The present writer has found 32 such cases in the S.P.R. files. Not all were dream cases, but that does not matter for our purpose. The interesting thing is that not one of the predictions deposited with the Society came true; even though some of the people making the prediction were supposed to be almost invariably correct in their forecasts. Various predictions related to the two great wars. There were eight false predictions of the time the 1914-1918 war would end, and two about the end of the 1939-1945 war. Two psychic predictions sent up in 1938 were to the effect that there would be no war. There was one incorrect forecast of the circumstances of Hitler's death. Nine forecasts of horse racing winners made in 1946 and 1947 were all wrong. During 1938 and 1939 one lady sent up a great number of forecasts of horse races, but with only chance results. Two predictions related to political events which never materialised, one of them asserting, with extreme confidence that Great Britain would have a general election in 1946. There were three unfulfilled predictions of deaths, one of marriage, one of meeting a certain friend at a club and one of winning a large sum on the football pools.

A negative finding of this sort lends support to the theory that published instances of precognition would be reduced to statistical insignificance if anyone were able to collect all the unfulfilled premonitions. The best way to settle the matter would be for more people to post their premonitory impressions to the Society as soon as they are received. A request to this effect is now sent to every person who presents the Society with an account of a fulfilled precognition.

Another way to tackle the problem of selection is for individuals to record their dreams immediately on waking, to take particular care to preserve all their notes, and to find out what proportion of their recorded

dreams comes true. This procedure was actually carried out by J. W. Dunne and reported in his book *An Experiment with Time*. Mr Dunne has, however, been criticised because he refused to acknowledge the necessity for certain elementary precautions in the collection of evidence for the supernormal. The experiment was repeated in 1933 under the auspices of the Society of Psychical Research, when a number of people were persuaded to keep a record of their dreams. 430 records of dreams were collected, but the result in no way confirmed Mr Dunne's contentions (4). The Dunne experiment gained wide publicity, and by all accounts it has since been tried by a good many people. The fact that no successes have been published rather suggests that Mr Dunne's "experiment", like so many other experiments in psychical research, is not repeatable. It would need to be done by someone who was in the habit of experiencing apparently precognitive dreams before any positive result could be expected; but it is an experiment well worth doing under properly controlled conditions.

Retrospective investigation of cases reported after the fulfilment can never properly dispose of the chance coincidence hypothesis, but it is possible to imagine an example in which so many unlikely details are fulfilled as to provide a strong *prima facie* argument against chance coincidence, however many unfulfilled cases there may have been. For instance, if someone were killed in unexpected circumstances, and it were found that this was in fulfilment of a prophecy which gave the name of the person, the hour of his passing, and described in detail the unusual manner of his death, that would be, to say the least, strongly suggestive of precognition. In all the reported cases, however, there are few, if any, which come up to this standard of perfection.

A case which is as good as any one comes across in the literature was that reported by Dr Tenhaeff, in which a Dutch lady foresaw in a dream the motor accident in which Prince Bernhard of the Netherlands was injured in 1937 (5). The percipient, Mrs B., said to be a very simple person, wife of a house-painter, consulted Dr Tenhaeff on the advice of some friends. She was in a state of nervous tension which some people had attributed to developing mediumship.

Ten days after the interview with him, Dr Tenhaeff received a letter from Mrs B. in which she related a vivid dream that had come to her the previous night. In her dream she saw a motor accident at a level crossing. A car, which was in a hurry to cross, burst a tyre and ran into a lorry and a gate. Someone was killed outright and she saw it was Prince Bernhard. Two days later Prince Bernhard did, in fact, meet with a motor accident. The circumstances were not quite as in the dream. The accident was not fatal and there was no burst tyre or level crossing. On the other hand, the Prince's car did, in fact, collide with a lorry which had emerged from a gate at the foot of an embankment in front of a railway viaduct.

This case is good, both on account of the corroborative evidence and because of the seeming improbability of a chance fulfilment. Some people would say it was sufficient proof of precognition, others would say it was not. Dr Tenhaeff tells me he "has asked a great many people to record their dreams" so that we must regard this as a particularly striking instance selected from a large number of cases. Then again, Prince

Bernhard was known to be a fast driver, and many people in Holland may have had dreams of such a disaster. One only hears of this particular case because it happened to take place a day or two before the accident. That the details of the dream were vaguely similar to the actual occurrence may well have been pure chance. And so the argument goes on *ad infinitum*.

Another very striking case of premonition of accidental death was sent to the Society by Mrs Schweizer in October, 1882 (6). The premonition concerned the accidental death of her son Frederick in July, 1882 when he was thrown from a horse and fatally injured. Eight days before the accident, Mrs Schweizer had a dream that she was walking along the cliff edge of a sea-front with her son Frederick and a stranger a little in advance. She saw her son slip and fall down the cliff, gazing up at her in anguish as he did so.

In her dream, Mrs Schweizer approached the man who was with her son and asked his name. "Henry Irvin," he answered. "Do you mean 'Henry Irving, the actor?'" she asked.

Mrs Schweizer was very worried and told her elder son John about the dream. Frederick was at the time in business in Manchester, but instead of coming home when he had finished, he proceeded to Scarborough for a holiday. While there, Frederick Schweizer was introduced to a Mr Henry Deverell, and they went out riding together one afternoon. It was on this occasion that the accident happened, but it was a fall from a horse and not down a cliff as in the dream.

Mrs Schweizer visited the spot and spoke to Mr Deverell, who she recognised as the stranger in her dream. When she told him about it, he appeared much affected and explained that although his real name was Deverell, he took part in private theatricals at which he was invariably introduced as Henry Irving, junior.

Now this prediction is striking enough to make anyone stop to think. Chance coincidence is clearly possible, but seems remote. The real point at issue is whether the account is accurate and well corroborated.

The version quoted here was sent to the Society by Mrs Schweizer three months after her son's death, and she had already given particulars to the journal *Light*. The essential features of the case were so clear cut and dramatic it does not seem probable that her account could be substantially different from what actually took place.

A search through the original records of the S.P.R. files revealed that several investigators had interviewed Mrs Schweizer, including both Myers and Gurney (the latter only a day or two before his death). It seems that the whole family was spiritualistic. Mrs Schweizer said that for years after her husband's death he seemed to accompany her in her walks. Her three sons were all mediums and on the day of Fred's burial both his brothers were "controlled" by his spirit. Mrs Schweizer described many other dramatic experiences. Psychic visions and striking experiences with mediums were common with her. Eglinton had given seances at her house.

A history of this kind usually means unreliable witnesses, but all the investigators seem to have been impressed by Mrs Schweizer and to have accepted the case without reserve.

For corroboration Mrs Schweizer says that her son John and Henry Deverell both signed an account written by her, and substantially the same as that given to the Society. This other account, obviously a most important document, was never sent to the Society and none of the investigators mention seeing it. This is a serious deficiency, and hardly remedied by John Schweizer's letter of July, 1884, in which he gives consent to his name being used in connection with the case.

There seems to have been some confusion over the name Irvin, which Mr Myers said was really Irvine, but that is perhaps not a very important slip. The important point is that the entire case rests upon the accuracy and truthfulness of the narrator, Mrs Schweizer and of her son John, who was the only person who could testify to hearing about the dream before the accident happened. In view of what is known of the excessive unreliability of human testimony in psychic matters, this is not enough.

The Schweizer case has been quoted and discussed at length here because it is the best example of apparent precognition that the present writer has been able to discover. Even this exceptional case is not quite conclusive. The fact is, the perfect case is a myth. There is always a flaw somewhere, either in the circumstances of the experience or in the supporting evidence.

Every case in which there is the slightest flaw can conceivably be due to faulty reporting. This will always be the trouble until we have sufficient records of premonitory impressions sent to us before the fulfilment, to enable the argument to be refuted. In future investigations, this should be kept clearly in view. No opportunity should be lost to impress upon the public the importance of posting to the Society for Psychical Research, accounts of vivid dreams or impressions—which might turn out to be precognitive—as soon as they are received. If the impression is strong enough for the percipient to tell other people about it at once (as is often the case, according to the published accounts), there is no reason why he should not also tell the Society.

One cannot do better in this connection than quote the words of Mrs Henry Sidgwick given at the end of her paper on premonitions, published in 1888 (which contained the case just quoted). So little have we progressed since then, that her words are as applicable to the situation at the present time as they were when she wrote them :

“ It is clear from our evidence that many people, rightly or wrongly, believe themselves to have tolerably frequent premonitions. Here, perhaps, lies our best hope of obtaining certainty, one way or another, on this at present perplexing question. These persons have it in their power to make a quasi experimental investigation of the subject. If they could make a point of recording before fulfilment all dreams or other experiences which appear to be premonitory—their records would, in a few years, go far towards settling the question whether genuine premonitions exist or no.”

Of course, there are many more difficulties than that of eliminating chance coincidence, although a lot of space has been devoted to this aspect because of its particular application to dream cases. There are several other snags attached to the investigation of dreams, some of them inherent in the subject matter of the premonitions.

In his analysis of published instances, Mr Saltmarsh observed that about 34 per cent. of precognitive dreams were related to deaths. In the search for evidence this is a disadvantage if one only hears of the dream after its fulfilment, for all who have studied normal dreams are agreed that death is a common topic. On the other hand, it becomes an advantage if the prediction is sent in before the fulfilment, because the probability of the death of a healthy individual within a given space of time can be estimated roughly from insurance statistics.

In the case of a prediction of accident or death, if the person involved is told about it, he may develop a subconscious apprehension which brings about his own undoing.

A case that might well have been caused in this manner is the following (7):

In February, 1921, a lady had a dream of her husband breaking his arm and collar-bone. Next day, when he was setting off on a fox-hunt, she told him her dream and asked him to take care. At the first fence his mare stumbled and he sustained a fracture—dislocation of his arm, but not his collar bone. He denied being worried, or even thinking about his wife's dream.

In this case there is a second possibility. The wife herself may have been apprehensive. We are not told whether the gentleman was a reckless rider, in which case the wife might have had some cause for anxiety. In certain predictions of death it may be that some hint has been picked up normally which later comes out in the form of a dream. For instance, in another case (8), a lady dreams of her fiancee's death a day or two in advance of its actual occurrence. Although she was with him only the day before his death, she noticed nothing wrong, and she and her family had no idea that he was not in the best of health. The cause of death was angina pectoris. It seems likely that during their association the lady must have observed some signs of ill-health in her fiancee. Possibly their significance was too awful for her to recognise them fully in her waking state.

Another fairly common topic for premonitory dreams, on an altogether different plane from death, is the horse-race. In conversation it is not uncommon to hear of people dreaming of winners of races, but this is not the kind of case that often finds its way into psychic literature. Even more than in the case of deaths, horse-racing predictions have the advantage that there is available a rough assessment (starting odds) of the probability of chance fulfilment.

The great difficulty, of course, is that there must be so many people dreaming of horses just before an important race some of the dreams are bound to come true. In an amusing contribution to the *Proceedings* (9) an editor of an Australian paper recounts how faith in prophetic dreams grew to such an extent that people used to take heavy pork dinners in the hope of inducing dreams in which they would foresee the winner of the Melbourne Cup. On a very different footing is the case of a Quaker, Mr J. H. Williams, who had a vivid dream in which he foresaw correctly the first two horses of the 1933 Derby. (10) Mr Williams said he had no interest in racing, was opposed to betting, and did not know the names of any of the horses running. In his dream, which he told to two independent witnesses before the race, Mr Williams heard, as if in a wireless com-

mentary, the name of the winner, Hyperion, and the second, King Salmon. This sounded a very good case of precognition, but it lost its force when Mr Beechofer Roberts pointed out that Hyperion started as a favourite, with King Salmon firmly established as second. If anyone were going to forecast the result on normal grounds, they might reasonably have predicted in the same way as Mr Williams's dream.

A much better case, in fact the best instance of racing forecasts the Society has printed, appeared in the *Journal* recently (11). Mr John Godley had four dreams of winners, all of which came true. Three of the dreams were well substantiated, in fact considerable profit was made by people backing his forecasts and the combined odds were significant. Mr Godley declared that these were the only dreams of the kind he had had. We have to take his word on that point, but even granting that, the case is still arguable. The odds were not so long as to exclude coincidence and it is always possible that John Godley, who studied racing, had picked up some good hints which came out in the form of dreams. There is no proof that Mr Godley did not have unfulfilled dreams which were not sent to the Society. Incidentally, a fifth dream, sent in to the Society some months later, was not fulfilled.

Once again we see how essential it is that the prediction should be sent to the Society as it is made. Furthermore, the subject matter must be such as the dreamer could neither infer by a normal process of deduction nor bring about by any action of his own.

There is a line of argument, often raised in connection with spontaneous cases, which purports to prove their supernormality by demonstrating their consistence of character. On a suggestion of Whately Carington's, Saltmarsh tried to apply this form of argument to precognitions. He observed, and demonstrated (by means of a 2×2 table and a chi squared calculation) that the proportion of precognitions relating to deaths was significantly different in dream cases than it was in cases in which the premonition came in the form of a hallucination (12).

Granting this interesting difference, it is not clear that it must necessarily have a supernormal explanation. It may be that very emotional impressions, such as deaths, whether they be psychic impressions or normal impressions, whether they be fulfilled or not, are specially favourable to the production of visions and hallucinations. Until it can be shown that this normal explanation is untrue, Saltmarsh's observation cannot be claimed as evidence for the supernormal.

In the sections which follow, various other normal hypotheses are described. Some of these, such as faulty memory, bad reporting, hoaxing and deception, are also applicable to dream cases. They are dealt with later for the sake of convenience of arrangement.

PART TWO

APPARITIONS AND HALLUCINATIONS

I. A CLASSIC EXAMPLE

The appearance of a phantom is a more striking occurrence than a dream, for the simple reason that it is much more unusual. Like the

prophetic dream, the hallucinatory phantom is often said to herald disaster. The person whose apparition is seen may be at the point of death, or undergoing some terrible crisis, at the very moment that his apparitional double is making its appearance elsewhere. Such cases, known in the literature as death coincidences or crisis apparitions, are much more convincing than dreams; they are, in fact, the very back-bone of the case for the supernatural. Where the percipient is expecting nothing, and both the apparition and subsequent news of the death come as a complete surprise, some sort of psychic linkage seems an obvious inference.

An example of a classic death wraith is that of Lieutenant David E. M'Connel, R.A.F., whose apparition was seen by a fellow officer on December 7, 1918, at almost the very moment he was killed in an aeroplane crash (13).

David M'Connel was aged 18. He had been given the job of flying a "Camel" scout plane to Tadcaster, 60 miles from his own station. He was accompanied by another flyer in an "Avro" plane. They ran into fog on the way. M'Connel kept going, although his companion made a forced landing. Hours later he reached Tadcaster, only to be killed instantly in a nose-dive crash while preparing to land. The time of his death was given by his wrist-watch, which was found stopped at 3.25 p.m.

Back at M'Connel's camp-room, at the aerodrome at Scampton, Lieutenant Larkin was smoking and reading by the stove fire. Sometime between 3.20 and 3.30 p.m. Larkin heard a familiar clatter approaching and M'Connel's voice calling out "Hello boy!" Larkin turned in his chair and saw M'Connel standing half in and half out of the room, holding on to the door knob. He remarked that he had had a good trip, and then closed the door and went out.

At 3.45 p.m. Lieutenant Garner-Smith came in and said, "I hope Mac gets back early." Larkin told him he had already arrived. When that evening Larkin learned that M'Connel had been killed he could not at first believe it.

This is probably the best case of its kind in the Society's collection. Lieutenant Garner-Smith confirms that Larkin told him of M'Connel's apparent visit only twenty minutes after its occurrence, and before either could have known of the death. Any ordinary explanation seems highly unlikely, although several possibilities are conceivable.

The rest of this paper is concerned with non-psychic factors in such cases. It will be of interest to see how many of these normal hypotheses can be applied to the M'Connel case; for it is obvious that all counter-hypotheses must be disposed of before assuming that the true explanation is supernatural.

II. FRAUD

Hoaxing is often advanced as an explanation of psychic stories. It is a difficult charge to refute, for it must be admitted that in the collection of spontaneous psychic experiences the investigator has little protection against being led astray by wilful deception. In the M'Connel case, for instance, if Lieutenant Larkin, who said he saw the apparition, and the friend who confirms his statement were for some reason not speaking the truth, there would be no need for further explanation.

Of course, pure lying seems an improbable explanation in any particular case, although there is no doubt that that is what sometimes happens. In such circumstances, it is extremely difficult to detect, because of the lack of obvious motive, other than the pleasure of deception for its own sake, or the desire to foist bogus "experiences" upon an unappreciative scientific world.

An extraordinary instance of pointless deception was the case of Mr and Mrs Brown (pseudonyms) who set out to hoax the S.P.R. with some spirit messages (14).

Mr and Mrs Brown called at the S.P.R. rooms in July, 1922 and said that they had been attending a private circle at which some veridical communications had been received from an unknown French soldier. Mr Jones, at whose house the sittings were held, wrote to the S.P.R. at Mr Brown's instigation. He explained that the circle consisted of himself, his wife, his sister, and Mr and Mrs Brown. Remarkable phenomena had been obtained, including raps and the overturning of a 25-lb. table without contact. The most interesting incident, however, was the French soldier communication.

In October, 1922 Mr Brown and Mr Jones were interviewed by Miss Newton, at that time the Secretary of the S.P.R. They gave her notes of the sittings and also some relevant correspondence.

According to the sitting notes for April 22nd, 1922 communications were received in French from one Bernard Lebecq (pseudonym) who stated that he was a soldier killed in the war and came from the town of T. in France. On July 8th he came again, gave the name of his regiment, and said he had been a wine dealer and had died at the age of 35 on July 3rd, 1916. He asked the sitters to write to an address in T. and tell his mother that Jean was happy.

Among the documents tendered was a copy of a letter from Mr Brown to Mme Lebecq. The reply was postmarked "Paris, July 11th", and was signed "Emille C.". Monsieur C. stated that Mme Lebecq was blind and almost out of her mind and that the loss of her two sons Jean and Bernard in the war had left her without any family.

There was a copy of a second letter in which Mr Brown explained the circumstances and asked for details of Bernard's birthplace, occupation, regiment, age and date of death. Monsieur C.'s reply came from an address in Belgium. He was able to give all the required details, and they tallied exactly with what had been given at the English sittings.

Bernard came through once more at a sitting on July 30th, at which a Mr Robinson (pseudonym) was present. Mr Robinson asked a friend in Belgium to make some inquiries about Monsieur C. It was found that the Belgian address from which Monsieur C. was supposed to have written was the address of a house destroyed in the war.

A member of the S.P.R. living in France was asked to make inquiries at T. He discovered that there was no such regiment as the one to which Bernard was supposed to have belonged. There was no record of any Bernard Lebecq killed in the war. Mme Lebecq and her address in T. were likewise both non-existent.

Mr Jones was informed of these findings and he started investigations on his own account. He confirmed the findings with regard to Lebecq,

and showed that Monsieur C. was also mythical. The whole case turned out to be an elaborate hoax perpetrated by Mr Brown. The communications were not veridical and all the supposed verifications were faked.

In apparitional cases, fraud, especially the falsification of documents, is very difficult to detect. In the following case an attempt at hoaxing the Society's investigators succeeded and the fraud remained unsuspected until years later, when one of the participants confessed.

The case was published in *Phantasms of the Living* (15) accompanied by lengthy correspondence and the usual collection of confirmatory evidence. The percipients were interviewed by Gurney, who wrote :

“Personal acquaintance has completely confirmed the impression made on me by the letters of these gentlemen, that they had observed the phenomena, which were a complete surprise to them, with intelligence and care.” Thus can appearances deceive even the most experienced of investigators.

The opening letter of the case was from Mr Sparks, who declared he had been in the habit of mesmerising a fellow student of naval engineering named Cleave. On Friday, January 15th, 1886 young Mr Cleave said he would try to make himself appear to a lady friend. Mr Sparks obligingly put him into a mesmeric trance, during which his apparition was supposed to have visited the young lady.

Two other students who were present vouched for the truth of the mesmeric experiment. A letter was produced from the young lady concerned to the effect that the apparition of Mr Cleave had appeared to her. Long afterwards it was placed on record that Mr Cleave had confessed that the affair of the apparition was a hoax (16).

This case was as well “authenticated” as most of the S.P.R. collection, and yet it was a fraud. It is a matter for speculation in how many of the cases that have been accepted as genuine, fraud remains undetected and unconfessed.

A recent case of motivated fraud is a psychic story that was told the present writer in April, 1947 by a friend of his, here called Dr A. The case is entirely without corroboration, and is given here only as *illustration* of the many unsuspected possibilities against which the investigator has to be on his guard.

Dr A. lived with an elderly aunt. One morning, on coming down to breakfast he found the aunt crying bitterly. When he asked her what was the matter, she explained that she had had a horrible dream about her brother, in which there had been a lot of flames. She was sure that something had happened to him.

Dr A. dismissed the idea, but when he came to read his mail, he found a letter telling him of the death of his aunt's brother and explaining that arrangements had been made for the body to be cremated.

It was indeed a striking confirmation of the dream, and Dr A., although sceptical about such matters, accepted it as an example of telepathy. Only afterwards, when he was talking to a friend about it, did he guess the explanation.¹ His old aunt had been worried about her brother. On

¹Dr A. did not verify his explanation, which must therefore be regarded as purely hypothetical. As already explained, this story is only quoted to show what might happen if the investigator is not on the look-out for unsuspected possibilities.

looking through the post one morning, she had seen a letter addressed to Dr A. in what she recognised as the handwriting of her brother's daughter. Filled with anxiety she had broken open the envelope and read the letter. It told of her brother's death, of the arrangements of his cremation, and advised Dr A. not to trouble his aunt about the matter until all was over. Ashamed at having opened someone else's letter, the aunt had stuck the flap of the envelope down once more and said nothing about having read it. All the same, she had wanted Dr A. to know she was aware of her brother's death, so that she could please herself about attending the funeral. She had therefore invented the tale about the dream.

This is an example of a case nipped in the bud. One can imagine how easily it might have been mistaken for a psychic incident if Dr A. had been less observant and had failed to notice the old lady's prior contact with his correspondence.

It must be understood that examples of this kind are unusual. No experienced investigator supposes that deliberate fraud accounts for very many cases of apparitions, and the number who have been "found out" is extremely small. The average person who reports a psychic incident to the Society is all too earnest and sincere, not at all the type of person to play a practical joke. However, it would be difficult to establish this opinion, which is a matter of personal judgment, on strictly logical grounds that would satisfy the resolute sceptic.

III. MISTAKEN IDENTITY

A proportion of the recorded cases, especially those in which the apparition was seen out-of-doors or in some public place, may be accounted for by mistaken identity. The "apparition" is really a living person who bears an accidental resemblance to the presumed agent.

Our powers of recognition are not infallible, and human features are never so distinctive that confusion cannot arise. Often enough one hears the phrase, "I saw your double today." If such an event should happen to coincide with the death of the person whose double was encountered, the percipient is very liable to conclude that he has seen a genuine psychic apparition.

The story reported to the S.P.R. by Professor Macneile Dixon in 1912 is a good illustration of the type of experience that might be a case of mistaken identity (17).

The incident took place at a London hospital in March, 1912. A patient mentioned to a nurse one morning that the matron had been in the ward at about 1 a.m. She walked in, looked at the fire, and then went out again. He recognised her by the cap and uniform. The night sister, before she went off duty, had also been told that the matron had been in the ward during the night. Two of the patients swore they had seen her.

It could not have been the matron in the flesh that the men had seen, because the night sister had taken a cup of tea to her room at 12.30 a.m. The matron said that after the sister's visit she had fallen asleep almost immediately, and had certainly not been near the ward in question.

Mrs Sidgwick visited the hospital and questioned the matron, the night sister and the nurse. The patients were no longer available. It was explained that the matron had been concerned about the coal shortage

and anxious to be as economical as possible. This may have been the reason for her apparition seeming to take such an interest in the ward fire.

The evidence for the supernatural here is very flimsy. Granted that matrons wear a different head-dress from ordinary nurses, might not the figure have been some unfamiliar sister or perhaps an assistant matron, with a slightly different uniform? This aspect of the case does not appear to have been investigated very conscientiously.

Another explanation is that the figure really was the matron. The idea of coal fires preying on her mind may have brought on an attack of somnambulism in which she went to inspect the fire in the ward. It is not mentioned whether the matron was asked if she had ever walked in her sleep.

This suggestion calls to mind another interesting case (18). The story runs as follows :

Mr X was a respectable tradesman and president of a small club which met once a month at a public house at the end of the street in which he lived. A short time before one of the meetings he was taken very ill. The club met as usual, and its members left a vacant chair in honour of their absent president. When the time came to adjourn, they were aghast by the entrance of an apparition of their president. The figure walked deliberately and took its place in the vacant chair. Then it looked round for a short while in silence, rose, and retired, leaving the members to talk over the strange visitation. Next morning they heard the news that their president had died at about the time his wraith had appeared to them.

The affair became the talk of the town, and an account was drawn up and attested before a magistrate. Three years later the old nurse who had attended Mr X in his last illness made a dying confession. She had left Mr X to get something from a nearby shop. In her absence, he had got up and left the house, and she had no doubt but that it was Mr X himself who had so surprised the members of the club down the street. When he returned, Mr X collapsed on the bed and died almost immediately. The nurse had never dared to reveal what had happened for fear of losing her professional reputation.¹

An interesting case was reported in *Journal*, Vol. X, p. 303, which, although not psychic, shows the extraordinary situations that can arise as a result of misrecognition.

Mrs Piddington had invited a friend to lunch, but received no reply. On inquiry it was found that the friend thought she had met Mrs Piddington in the street and given the reply verbally. This might easily have been regarded as a telepathically inspired apparition had not Mrs Piddington's friend met the same lady again and discovered that they had both mistaken each other for someone else.

In the M'Connel case (quoted at the beginning of this part) the apparition was so realistic that it might have been an example of mistaken identity. In favour of this explanation is the fact that the figure appeared at a base where there would have been other young airmen wandering about. Against it are the facts that Larkin knew M'Connel very well by

¹No original authority or confirmatory testimony is put forward in connection with this case, which must therefore be regarded as purely illustrative.

sight, that the figure appeared only a few feet away in a well-lit room, that it was wearing what Larkin recognised as M'Connel's special cap and that it made a remark about the flight.

IV. DECEPTIVE MEMORY AND FALSE TESTIMONY

One feature stands out above all others from a study of memory, and that is the unreliability and deceptiveness of the faculty. Experience of the Court Room shows how often a genuine effort at recollection can result in the depiction of events, not as they actually occurred, but in the way the witness would have liked them to appear.

Psychological distortion of memory is especially evident in psychic matters. In reciting a psychical experience, the narrator tends to remember in detail, or to exaggerate, points which favour the supernatural, while completely forgetting points which fit in with a naturalistic explanation.

This unwitting falsification results in more pseudo-psychic cases than does deliberate fraud. It is a very common mechanism, but the ordinary literature of psychical research gives the reader no inkling of its extent. The published cases are only the cream from a much larger number which either lack confirmation or which investigation exposes as tall stories. Only about one per cent of the psychic incidents reported to the Society for Psychical Research can be authenticated well enough for publication.

A great deal has been written about the unreliability of human testimony in relation to the physical phenomena of the seance room (19). Fewer people realise that experiment has shown that observations of ordinary incidents outside the seance room are almost as faulty (20). Testimony regarding hallucinations is equally questionable, perhaps more so, the only essential difference being that the errors are more difficult to detect in the absence of any objective record.

It is an interesting problem (but one which cannot be enlarged upon here) why biassed testimony and distorted memories are met with so often in psychic matters. The question is one of universal yearning after some sign that human beings are not just the doomed puppets which the brutal facts of decay and death suggest. The matter has been thoroughly discussed in an excellent thesis by Dr Lawton (21).

The value of apparitions as evidence for the supernatural lies in their apparently constant association with death, which argues for something more than chance coincidence. The first essential in investigation is to make sure that the alleged coincidence with death is valid, and not just a trick of memory due to previous expectation. A case in point is that of Sir Edmund Hornby (22).

It was Sir Edmund's habit to allow newspaper reporters an interview during the evening to get his written judgments for the next day's paper. One night the judge was awakened by a reporter entering his bedroom and asking for a dictated précis of his judgments. The judge indignantly refused and admonished the reporter for breaking into his bedroom at half past one in the morning. The reporter refused to go and an argument ensued.

Fearful of awakening his wife with the commotion, the judge at last gave in and let the reporter take down in shorthand the gist of the judgment.

The man seemed satisfied and left the room. Lady Hornby then awoke, thinking she had heard voices, and her husband told her what happened.

Next morning news came that the reporter had died as a result of heart disease at the very moment the judge had been interviewing his apparition. Beside the body was the reporter's note book. It contained the usual heading for the judgment, followed by a few lines of undecipherable shorthand. Investigation showed that the reporter could not possibly have left his house and visited the judge, who lived a mile and a quarter away.

This case broke down when a critic pointed out that the reporter's death had taken place three months before Sir Hornby supposed. The assertion was verified and Sir Hornby was forced to admit that his memory had played him a most extraordinary trick with reference to the coincidence in time between vision and death (22b).

The census of hallucinations carried out by the S.P.R. at the end of the last century contains some most interesting figures in relation to biased memory in psychic cases (23). The investigators set out to determine what proportion of spontaneous hallucinations in sane people coincided with deaths. As a preliminary, they went into the question of the remembering of non-veridical hallucinations. It was found that reports of non-veridical hallucinations which they had collected showed a preponderance of recent cases. Consider the following table :

HALLUCINATIONS CLASSIFIED ACCORDING TO DATES

Type	Reported as happening		Undated
	Within ten years (recent)	Over ten years (remote)	
Visual - -	460	529	123
Auditory - -	223	135	136
Tactile - -	96	42	41
Total - -	779	706	—
Expected proportion, recent :	779	remote cases, assuming equable distribution.	2062

(From tables IV, VII and VIII of Census Report.)

HALLUCINATIONS CLASSIFIED BY DATES (cont'd.)

Date of Occurrence	All Types	Recognised Human Forms
In last 3 months - - -	42	} 35
Over 3 months but not over 12 months	45	
„ 1 year „ „ „ 2 years	57	19
„ 2 „ „ „ „ 3 „	47	15
„ 3 „ „ „ „ 4 „	39	13
„ 4 „ „ „ „ 5 „	55	15

<i>Date of Occurrence</i>		<i>All Types</i>	<i>Recognised Human Forms</i>
„ 5 years	but not over 6 months	44	13
„ 6 „	„ „ 7 „	42	17
„ 7 „	„ „ 8 „	29	12
„ 8 „	„ „ 9 „	28	8
„ 9 „	„ „ 10 „	32	10

There was no reason to suppose that hallucinations were really becoming more frequent with the progress of the years. The obvious explanation was that non-veridical cases were quickly forgotten. If hallucinations were easily remembered, each year would contain approximately the same number of cases, but in point of fact the longer the lapse of time, the fewer the cases reported.¹

It was found that the three separate months of the most recent quarter year contained an approximately equal number of recognised apparitions, so that it could be assumed that only a negligible proportion of this type of case was forgotten within three months. From the number reported in the last three months, one could obtain a fair approximation to the actual frequency of cases. It was estimated that the total number reported had to be multiplied by four to compensate for the ones forgotten.

Very different was the situation of those cases which were claimed as veridical by the people who had experienced them. Here the bias was in the opposite direction. The census collection of alleged death coincidences contained a disproportionately large number of remote cases, a fact which strongly suggested that many were apocryphal.

The figures of the census show eleven cases of death coincidences said to have occurred in the preceding ten years. Taking into account the average age of the census population, this leads to an expectation of 29 cases over ten years old. Actually fifty-one such cases were reported.

It would have been better if the census had been on a larger scale, and the investigators had had more such cases to work with. It would then have been possible to take a shorter span of time than ten years for comparison. If, for example, the investigators had been able to compare the number of cases occurring in the preceding twelve months with the total number, an even bigger disproportion might have been discovered.

The census findings prove that the human mind not only quickly forgets non-coincidental cases, but that in the course of time the ones that are remembered become embroidered with coincidental features they did not in fact possess. This conclusion has always been suspected on common-sense grounds. The census serves not merely to verify the suspicion, but to give some measure of the extent of the effect.

The obvious remedy is to make it a rule never to accept a percipient's unsupported word. One should always search for such things as diary entries and letters and compare the date they bear with the official record

¹ Further analysis showed that most of the vague auditory or tactile impressions, which might have been illusions, were forgotten in a matter of weeks. Apparitions of recognised human forms were remembered much longer, so only that type was included in census estimate of the proportion of apparitions coinciding with deaths. Even with this restriction, generous allowance had still to be made for cases forgotten.

of the death. In the M'Connel case, for example, it would be very difficult to raise deceptive memory as an explanation, because the percipient and the principal witness are both quite clear that the apparition came before the news of M'Connel's death, and they both recorded this fact in writing a week later.

V. EXPECTANCY AND SUGGESTION

Apparitions heralding deaths, such as the M'Connel case that has been quoted earlier, are striking because of the coincidence in time of two unusual events. M'Connel could only die once, and that might happen any time in a life span of seventy odd years. Larkin had probably never seen an apparition before. The odds against the events corresponding almost to the minute by chance coincidence are too fantastic to contemplate. There must be some causal relationship, probably telepathic.

Thus do most psychical researchers state their case, but as it stands the argument implies several unwarranted assumptions. First, hallucinatory figures by no means so rare as most people imagine. The census of hallucinations, which will be discussed at greater length in the next section, showed that ten per cent of normal sane people admit to at least one hallucination. Actually, hallucinations are far commoner than the figures would indicate, because of the marked tendency to forget them very quickly. In this respect hallucinations resemble dreams, most of which are forgotten either almost immediately on waking or else shortly afterwards.

Second, the probability of imminent death varies with state of health and other circumstances. In the M'Connel case, for example, when the flyer was lost in the fog, one might almost say there was an *expectancy* of death.

Third, where the percipient has reason to suppose a death is likely, the expectancy in his own mind may actually generate the hallucinatory apparition. In other words, instead of the hallucination representing a telepathic "message" from outside, it may merely be a "message" expressing the percipient's own anxiety.

Expressed like this, the expectancy explanation sounds far-fetched, but there is considerable evidence that expectancy is a most important factor in the aetiology of hallucinations.

As will be explained in the next section, the majority of hallucinations correspond with nothing in particular, and require no explanation from a psychical research stand-point. Probably they have a physical basis, although it is as yet obscure. The visions produced by fever or by mescaline are well known, but how these agents act is something of a mystery. The highly integrated visions they produce could hardly be due to a direct nervous stimulation; more likely they work by so disorganising the nervous system as to result in inco-ordinate mental fantasies. Sporadic hallucinations of the type that give rise to psychic cases probably have a greater psychological element in their genesis.

One noticeable feature is that the percipient (ex. Lieut. Larkin) is usually sitting quietly at home when the hallucination comes. Apparitions in busy, crowded places are exceptional.

The content of hallucinations (which are after all only waking fantasies)

is probably determined in much the same way as the content of dreams. If a person is going to have a hallucination, anxiety about a friend may well cause it to take the likeness of that friend.

In the field of hypnosis, there are abundant examples of hallucinations produced by verbal suggestion. Similar phenomena have been demonstrated in the un hypnotised. Alice Johnson has described a very interesting case (24) of a Mr Grünbaum who was so sensitive that the most casual suggestion was liable to give him a hallucination. Mr Grünbaum's experiences started when he made some successful attempts at invoking visions by autosuggestion. He soon found that visions were coming to him without any seeking on his part.

On one occasion Mr Grünbaum had been reading—in the S.P.R. *Journal* for 1911—about sitters feeling touches in the dark in the presence of a young physical medium. When he went to bed that night, just as he was on the verge of falling asleep, a thought shot through his mind: "Shall I touch you a little?" Directly afterwards he felt a blow on the head and saw a white silhouette of a hand on a black background. He recognised the hand as being from an illustration in the *Annals of Psychic Science* (Vol. I, pp. 210-212).

Still more to the point was an instance in which the suggestion of a casual phrase in a book brought about a fully-fledged apparition. Mr Grünbaum had accidentally alighted on an old book on Faust and in looking through it had come across a magic formula. When he was lying in bed, the words of the formula flashed through his mind: "Tetragrammation-Adonai-Agla." Shortly afterwards Mr Grünbaum was considerably frightened by the appearance of a horrifying Mephistophilian spectre at the foot of his bed. It was a broad figure with vibrating smoky-blue outlines. There can be no doubt that the hallucination had been suggested by the magic conjuration.

The census investigators had quite a lot to say about the effects of suggestion and expectancy. Selected cases were quoted in which there were clear correspondences between the substance of the hallucination and the subject occupying the percipient's thoughts: for instance, the case of Mrs T. E. who, while waiting in a hotel room for her husband, saw him approach and rose to meet him, only to find that the figure was a spectre which vanished before her eyes. A similar modern instance, quoted in Mr Tyrrell's book *Personality of Man*, happened to Miss Ina Jephson in November, 1931 (25). She received a letter from her lawyer saying he was enclosing a cheque. Not having time to attend to it on arrival, she took it out with her, peering into the envelope occasionally to see that the cheque was safely there. When she got home, the cheque had disappeared, although she was absolutely convinced that she had seen and handled it shortly before, and could remember its marble pale colours and the look of the writing on it. She found out afterwards that by an accident the real cheque had never been enclosed with the letter. The cheque she had "seen" on looking into the envelope was an hallucination brought on by her expectant state of mind. Mr Tyrrell also described a case in which someone turned on the switch of a wireless and saw the dial light up when in fact it was not working at all. A friend of the present writer reported independently a precisely similar experience.

The census investigators described also how slight normal impressions may lead to hallucinations through the effect of suggestion. The unexplained opening of a door might form the nucleus of a phantasmal experience in which the figure seems to walk into the room. In certain cases the investigators were able to trace the development of the hallucination step by step, one percept suggesting and leading on to the next. In this way, a figure seen first apparently by reflection in a mirror may afterwards be viewed directly. Apparent physical effects, displacement of objects, opening of doors, and so forth, are subsidiary hallucinations suggested by the main percept. Apparitions seem to obey physical laws, cast shadows, disappear behind screens, and so on, only because the environment suggests to the percipient that this is what should happen. In the hypnotic trance the subject's attention is completely taken up with the hypnotist, so that he is in effect isolated from the suggestions of the environment. This is the reason why the visions produced by hypnotic suggestion take hold of the mind with such intensity and exclusiveness and do not fit in with the surroundings like the typical apparition.

While the cases here quoted are extreme examples, they are supported in some degree by ordinary experience. For instance, there are the mild hallucinations which people often experience while waiting for someone. They may seem to spot the familiar face of the person they are expecting, only to be disillusioned on closer inspection when the features resolve themselves into those of a total stranger.

It must be stressed, however, that although expectation and/or suggestion frequently determines the *content* of a hallucination, expectation is not always the sole cause of its *occurrence*. If that were really so, we should be constantly hallucinated. As Mr Tyrrell points out, people in thousands every day see and hear things contrary to what they expect, and people expect and desire intensely without being hallucinated.

The psychical researcher is not so much interested in why some people sometimes have hallucinations, as why hallucinations when they do occur should occasionally correspond to external events. We do not understand the causes of dreams and hallucinations, but we know that their content can be guided by the beliefs, hopes and fears of the percipient. This being so, a case cannot be used as evidence for telepathy if the information presented to the percipient be no more than what he might have thought out for himself.

The following case (38), collected in 1944 by the present author and Mr D. H. Hyde, another member of the Society, is an illustration of the sort of experience that can be readily accounted for by the influence of suggestion.¹ The fact that the case presents no veridical features is curious. One would expect, with a lapse of time of fifteen years between the apparition and the report, that some sort of apocryphal coincidence would have been woven into the story.

The percipients were Mr and Mrs H. of Liverpool (full names and addresses in the Society's possession). Their statements were taken down in writing, typed out, and then submitted to them for correction and signature (25).

¹Other explanations are not included, but the one put forward seems to make the least assumptions.

Testimony of Mrs H.

“In 1926 my mother died at the age of 52 as a result of heart failure following Bright’s disease. Some months later, I moved to a new house and remember feeling that, had my mother been alive, I would have liked her to have seen it and approved of it. I mentioned this feeling to a woman friend, who said something about my mother watching over me. However, I paid no attention to this idea, and by 1929 the feeling had quite worn off and I had not got my mother on my mind at all. Apart from the one instance I am going to describe, I have had no other psychic experiences and I am not a spiritualist.

“In the last week of April, 1929, just about a week before my sister’s marriage, my husband brought me a cup of tea in bed before he left for work round about 6 to 6.30 a.m. (Mr H. is a tramway superintendent). I distinctly remember hearing the noise of my husband slamming the door behind him as he went out. At the very same moment I saw the handle of my bedroom door turn and the door slowly open. My mother walked noiselessly straight into the centre of the room and stood about four feet from the bed.

“The apparition appeared absolutely life-like and real, but I was not afraid, only surprised. I could see the features clearly, and they were my mother’s. She was wearing a nightgown which I recognised, and I particularly remember the frills on the cuffs, which seemed to stand out, though I don’t remember the hands. She looked exactly as I remembered her in health, just before her sudden death. Her hair was sleek and parted in the centre, which was characteristic. The face was sallow and wore a pained expression, and there was a handkerchief tied round the forehead. This was just as she used to look in life when she had one of her frequent headaches.

“I exclaimed, ‘Oh Mum, whatever’s the matter?’ I rather think she shook her head then, but at any rate she replied, ‘I’m terribly worried.’ Then she seemed to dissolve away all of a sudden. There was no fading away, she just vanished.

“I particularly remember noticing and being impressed by the fact that I found myself sitting up with the cup of tea still balanced on the palm of my hand, from which I feel certain that I was wide awake. I was so absorbed with what had taken place that I cannot remember what I did with the tea or whether it was cold; nor can I remember whether I found the bedroom door open afterwards. I rather think it was not, otherwise I would have noticed it. Had I found it open I would probably have put it down to the vibration of the front door being slammed. There was no one in the house except my baby son.

“The incident made a deep impression and left me in an unsettled frame of mind, but I could not connect what the apparition had said with anything about which my mother might have been worried, unless it were my sister’s forthcoming marriage. I carried on with some housework, and when my husband returned at 9 a.m. I told him about my experience. At 10.30 a.m. the same morning I went to see my sister’s future mother-in-law (now deceased) and told her about it. Then, at about 11 a.m., I visited my husband’s mother (now deceased) and told her as well.”

It will be seen from this account that Mrs H. fully admits that at one time the idea of her mother's continued presence had been suggested to her. It is possible that her sister's marriage may have reinforced in her mind the idea of her mother, who would have been deeply interested in the event. The phrase "I am worried" may have been suggested by a half-conscious anxiety about the marriage, which actually turned out unhappily on account of many troubles, medical, financial and temperamental.

The same apparition appeared to Mr H. It was probably suggested by his wife's prior experience. Mr H. had had psychic experiences before. The fact that this particular hallucination took place after the wedding may have been a consequence of Mr H.'s share in the celebrations.

Testimony of Mr H.

"I recollect returning on the morning of my wife's experience. I think she was sitting at the table eating when I came in. She seemed very quiet and said: 'I've had an experience. After you left, the bedroom door opened and mother walked in. She put her hand to her forehead and said, "I'm terribly worried", and then vanished. I've been thinking about it ever since.' I suspected at the time that my wife's experience might have been the result of health conditions, although she appeared perfectly well. To prevent any possible bad after-effects, and to stop her brooding over the matter, I made light of the affair and brushed it away as soon as possible. However, I took careful note of succeeding events to see whether anything would happen to justify the apparition's apprehensions, but I noticed nothing.

"My wife's sister was married on the 4th May following, and that night I shared a bed with my wife's brother in the house in which my mother-in-law had died. During the night (I afterwards noted it was about 3 a.m.) I felt a very cold hand touch my forehead. I supposed it must have been my father-in-law come into the room to speak to his son, so I tried to wake the latter by shaking him with all my strength and saying, 'Your father is here.' I failed to rouse him, however (Mrs H. stated that her brother was normally a heavy sleeper), and on looking round I saw the face and bust of my mother-in-law. The room was pitch dark, but I saw and recognised the features clearly, as the figure seemed to be illuminated by a brownish yellow light. The figure gazed at me without moving and seemed to be rather larger than life-size. The appearance was only momentary and it vanished suddenly. . . .

"The following night I slept with my wife in another room, which happened to be the one in which my mother-in-law had died. Once more I felt the touch of a cold hand and I looked up expecting to see the apparition, but there was nothing. I lit a candle and smoked a cigarette, exactly as before, but nothing happened. I told my wife about it next morning. The first experience I had found upsetting, but the second time I was affected much more slightly."

In the M'Connel case, which we have used as a typical example of a crisis apparition, Lieut Larkin's vision of his brother airman may well have been the result of a state of expectancy or anxiety. Larkin knew that his friend had gone out on a flight. He must have known that the weather

conditions were bad. There is no definite statement in either the printed account or the original documents of the case as to whether Larkin knew also that the companion plane had made a forced landing.

If some other pilot back from a trip had looked into the room, made a casual remark and gone out again, Larkin would not normally have mistaken him for M'Connel. But the circumstances were unusual. He may have been anxious (perhaps subconsciously) and on the look-out for M'Connel, in which case it would require a very slight hallucination indeed to convert the momentarily perceived voice and features of another man into those of the friend whose appearance was so much desired.

VI. CHANCE COINCIDENCE

Most psychic apparitions convey only one piece of information, namely that a particular person has just died. The scope for chance coincidence in these cases is more easily assessed than in dreams, which tend to cover a multiplicity of topics. Here the issue is quite clear. Does the correspondence between apparitions and the deaths of their real life counterparts happen more often than one would expect by chance coincidence?

At first sight the question seems futile. One cannot conceive that cases like that of Lieutenant M'Connel, seen at the very moment he was killed, could be due to chance coincidence. To explain things away by invoking chance is such a facile method of escaping a logical impasse that the outcome does not carry conviction.

It is to the credit of the early investigators, that although the chance coincidence hypothesis must have seemed to them an absurdity, they realised the need for a scientific answer to the question. They saw that the argument depended upon the relative frequencies of coincidental and non-coincidental hallucinations, so, in the true spirit of scientific investigation, they set out to determine these frequencies by means of a census of hallucinations.

Collectors were sent out to obtain answers to the following question: Have you ever, when believing yourself to be completely awake, had a vivid impression of seeing or being touched by a living being or inanimate object, or of hearing a voice; which impression, so far as you could discover, was not due to any external physical cause?

Of the 17,000 answers received, 2,272 were in the affirmative, that is to say thirteen per cent of the people questioned admitted to having had a hallucination not accounted for by illness or intoxication.

Before any inferences are drawn one must be sure that this figure for the total number of hallucinations is not an under-estimate, otherwise the death coincidences will seem to form a spuriously large proportion of the cases.

Untruthfulness might account for some degree of under-estimation. The census question asked only for a plain "yes" or "no" in the first instance. A practical joker might say "yes" where he should say "no", but this would lead to an over-estimate, which is an error on the conservative side. Against this, some people might be too cautious to admit having had hallucinations. These people would probably refuse to answer and so lessen the affirmative replies. This effect was actually present, but it was counterbalanced by an error in the opposite direction,

due to collectors tending to select for questioning persons most likely to give positive answers.¹

One source of error with which the census does not seem to deal very adequately, is the complication of multiple hallucinations. In the first instance, the census counted the number of percipients, but 381 percipients had experienced more than one hallucination. There was no difficulty when the hallucinations were specified and enumerated, but 28 percipients had experienced more than one hallucination who could not say exactly how many hallucinations they had had. The experiences of these percipients, whether veridical or no, were ignored. Actually, seven death coincidences were excluded by this rule.

It is not clear that this method gives a good picture of the situation. It might have been better to exclude all hallucinations and all death coincidences that were not unique in the percipients' experience. The problem is further complicated by the very real danger that percipients who have had more than one hallucination will be reluctant to admit them, for fear of being suspected of mental peculiarity.

The gross error introduced by the tendency to forget non-veridical hallucinations has already been described, and so has the unsatisfactory method whereby the effect was allowed for in the census.

When the adjustment had been made, the number of recognised, human apparitions in the collection, corrected for forgetfulness by multiplying by four, amounted to 1,300. Against this there were 65 recorded cases in which the apparition occurred within 12 hours (either side) of the death of its agent.

The estimated number of death coincidences had now to undergo certain corrections. An arbitrary deduction of 22 was made to allow for possible apocryphal cases, because, as already explained, there was an excess of remote cases. A correction was made for the tendency of collectors to seek especially for coincidental cases. A good proportion of cases were stated definitely not to have been known beforehand by the collector. For the rest, a generous deduction of 11 cases was made: Two further cases were deducted because the apparitions were seen out of doors or in a bad light and might have been illusions. Altogether the 65 reported death coincidences were reduced by over fifty per cent.

The final corrected result was 30 death coincidences out of 1,300 recognised apparitions. That is to say, one in every 43 apparitions coincided, within 24 hours, with its agent's death.

The census investigators considered this result highly significant. They pointed out that the national death statistics showed that only one person in 19,000 dies in any given 24 hour span. This means that on an average, if only chance is at work, only one apparition in 19,000 should be a death coincidence. After generous allowance had been made for all possible sources of error, the census had yielded an actual proportion of one death coincidence in every 43 apparitions.

¹ In order to obtain some figures free from both these sources of error, the census investigators questioned random samples of the general population, such as were provided by dinner parties and other social gatherings. Samples in which any refusals were encountered were rejected. By this means, 626 replies were obtained, thirteen per cent of them being in the affirmative. This result shows that the combined effect of the two sources of error mentioned was not very great and may be safely neglected.

While these figures are certainly suggestive, they are not by any means a statistical refutation of the chance coincidence hypothesis. Individuals are extremely variable with respect to the likelihood of death within 24 hours, so variable indeed that an average figure for the whole population is useless when applied to such a small statistical sample as the census of hallucinations. The proper procedure would have been to examine each case on its merits and make an estimate of the probability of each agent's death from such data as age and state of health.

Another criticism, far more serious than the statistical shortcomings, cuts across one of the basic assumptions upon which the census argument rests. In order that the result shall mean anything at all, all the death coincidences included in the account must be genuine.

In assessing the probability of the genuineness of a death coincidence, such factors as have already been dealt with, namely hoaxing, deceptive memory, mistaken identity or suggestion, must all be taken into account. Before a case is accepted as genuine it is right to expect some independent evidence that the coincidence was as close as the narrator's memory would have one believe. There should be an assurance that the percipient had no reason to expect the agent's death, as well as some testimony on the vital point that the hallucinatory experience came before the news of the death.

The census report includes accounts of 26 cases which were considered evidentially satisfactory, and if these 26 cases only had been counted, and proportionate reductions made for the effects already discussed, the result would still have been highly suggestive. Unfortunately, even the 26 printed cases fail to conform to our present conception of elementary rules of evidence. In only six of the cases was there a claim that a written note had been made before news of the death arrived. Of these six cases, there was only one in which the note had been preserved. Even then it was not satisfactory, as the lady who had made the note in her diary was too shy to put it in words. Instead she used symbols, the exact meaning of which she afterwards forgot. Of the other five cases in this group, one stands on the percipient's unsubstantiated word and in another the only confirmation comes from a deceased witness's daughter. In a third case, the hallucination might well have been due to expectancy, for it is recorded that the agent, who was about to undergo a confinement, had told the percipient she was expecting to die. Indeed, the expectancy objection could be applied to five out of six cases, for in only one of them is there any statement to the effect that the percipient was not expecting the agent's death. Space will not permit an analysis of all 26 cases, but one or other of these general objections applies to nearly every one. The census claim to 26 evidential death coincidences is thus misleading. There might be an odd case fairly well substantiated, but that could be just a chance coincidence.

The census result, far from being the last word on the subject, must be regarded as inconclusive. In arguing against chance coincidence, the census investigators, like their followers in later generations, forget that they have to refute all other normal explanations as well. It is no use dealing with chance in isolation from all the other normal factors which combine to produce the phenomenon of the psychic apparition. If all the

recorded cases had to be accepted, the chance coincidence hypothesis would be untenable, but when deductions and allowances are made for all the normal explanations that have been discussed, then it becomes feasible. No single normal explanation will ever be found to fit the enormous variety of reported phenomena.

If the very elaborate census investigation did not succeed in disproving the chance coincidence hypothesis, the question is what type of evidence would be conclusive. The great flaw in the census was that the final data upon which the statistics were based had not been reduced to a clear-cut issue between chance and telepathy. It is no use proving statistical significance unless one can be sure that the result is due to psychic faculty and not to faulty reporting.

In the case of premonitions, it has always been recognised that the sovereign remedy from an evidential point of view is to collect the impression before the verification. Precisely the same principle applies to apparitional cases. If the people who see an apparition would only inform the Society at once, instead of waiting for some sort of confirmation and then reporting the experience, we would have a much more useful set of data for evaluation. It would still have to be established that the percipient had no normal knowledge of the information conveyed by the apparition, but otherwise cases reported at such an early stage, and verified later, would be proof against all the objections that have been mentioned.

Perhaps this is an unreachable ideal, but if the same amount of energy were devoted to its attainment as was expended upon the census we might get somewhere. If six hundred members of the Society were made thoroughly conversant with the need for reporting apparitions immediately, one would expect a few examples in the course of the next year or so. If the same appeal were addressed to a larger audience, by those who write articles and give lectures, the result would be obtained sooner. The great advantage of such an investigation would be that the result would be either positive or negative and not indecisive, as most investigations in this field have been up to date.

VI. QUALITY OF THE CASES

In the literature of our subject there are constant references to the high quality of the cases published by the S.P.R. They are admired for the amount of corroborative evidence which accompanies them, as well as for their highly veridical content.

The present writer has read through large numbers of cases in *Proceedings* and *Journal*, and it seems to him that in both respects their quality is over-rated. In the light of all the possible objections, and the obvious flaws in testimony of this kind, most of the cases seem worse than mediocre. The best known cases, that are supposed to be the cream of the evidence for telepathy, seem dubious on close inspection. The case of Robert Mackenzie, (26) for instance, is often quoted roughly as follows :

Robert Mackenzie presented himself to his employer in a dream and said that he was not guilty of what people thought. It was learned later that the experience coincided with Mackenzie's accidental death by swallowing nitric acid. The first tidings, afterwards corrected, were that

it was a deliberate suicide. What is more, the peculiar facial appearance of the apparition corresponded to the symptoms of nitric acid poisoning.

This account is superficially impressive, but becomes disappointing on critical examination. In the first place the experience was a dream, and one has to take into account the vast number of unreported non-veridical dreams.¹

On receipt of the news of the suicide, the percipient told his wife that he did not think Mackenzie had done it on purpose. This slender point is the only part of his testimony that can be checked, yet the case is frequently quoted as evidential.

Phantasms so often wear a deathly look that there is not much of a coincidence in the similarity between the dying man's countenance and the face seen in the dream. Lastly, the coincidence in time was not very close: the dream took place two days after the accident.

This example would not have been worth quoting were it not typical of the published cases, nearly every one of which have serious imperfections. The fact is that good cases are far rarer than most psychical researches are willing to admit.

Miss Hilda Harding, a member of the Society, has been kind enough to read through numerous cases in the *S.P.R. Journal* for the purpose of studying the lines of evidence which they contain. Miss Harding is particularly well qualified for this task, combining the advantages of the trained legal mind of the barrister with the sympathetic understanding of one who has had psychic dreams and impressions herself. She writes as follows:

“NOTES ON EVIDENCE OFFERED FOR ‘CASES’ QUOTED
IN JOURNAL OF S.P.R.”

“At the suggestion of the Research Officer, I arranged to go through the ‘Cases’ quoted in the *Journal* of the Society starting at the year 1884 and going on to the current issue with the object of trying to evaluate the evidence given in support of these cases (Spontaneous Impressions, Hallucinations, Dreams). Having done fifteen volumes which form a representative cross-section I have abandoned the task for the evidence seems to me to have little value for the unbiassed examiner, hardly anything emerging which could be called first-class. I was greatly struck by the tendency of the cases to take the form provided by the ‘thought-pattern’ of the period—for example, the early cases are far more naïf

¹It makes a lot of difference whether an apparitional experience is a true hallucination or a dream. The former, being a much rarer occurrence, affords better evidence against chance correspondence. The case of Lieutenant M’Connel, which has been used as a standard example of a crisis apparition, could have been a dream. In reporting the case, Lieutenant M’Connel’s father pointed out that Larkin might have been dreaming, but this part of his letter did not appear in the published account. It reads as follows:

“In his (*i.e.* Lieutenant Larkin’s) written account he says that he was sitting in an easy chair before the fire in the room. . . . I had particularly drawn Larkin’s attention to the possibility of his being asleep at the time. . . . Sitting before a fire in any chair is conducive to sleep on occasion. But even if he had dreamed that he saw my son, it could have been sufficiently extraordinary occurring at that hour.”

than those of later volumes by which time modern psychological ideas, particularly with regard to telepathy, have percolated widely through many strata of the population.

“From the nature of the circumstances governing the Cases real copper-bottomed evidence is almost impossible to come by. Ideally each percipient should be examined and cross-examined by competent persons immediately after an incident has taken place and before repeated narrations of the experience has resulted in accretions of details which so overlay the original. Such evidence as is offered in attempted corroboration—statements by relatives and friends, postmarked letters in which the experience is described—is often worth nothing. It merely proves that the percipient *purported* to have such and such a supernatural experience on a given date. Nothing is proved of the bona fide of the principal party. Against the mere word of the percipient we are obliged to offset all that life has taught us of the strange results ensuing from lack of mental balance, honest error, illusion, expectancy, suggestion and so forth, apart altogether from mischievous lying.

“In some of the cases investigators sought out the percipients and questioned them, but the investigations do not sound sufficiently searching. A dispassionate unbiassed attitude is essential for this work and much skill and practice is required.

H. H.”

VII. INSANITY

The title of this section is perhaps a little mysterious. Unless one has had personal contact with people claiming psychic experiences, it may be difficult to imagine what insanity has to do with the subject. Of course there are individuals, completely bereft of psychic sense, but with a robust common-sense, who assume that if a person believes he has had a psychic experience he must be out of his mind. Most psychical researchers think they can afford to look down upon such ignorant scoffers. But it is dangerous to ignore the voice of common-sense. In this connection, as in many another, there is a germ of truth in what the voice has to say.

Visionary experiences inspired by telepathy are often claimed without foundation by persons suffering from mental disease. All psychiatrists seem agreed on that point, irrespective of whether they believe in the occurrence of genuine telepathy. There are actually thousands of patients in (and out of) asylums, the main feature of whose illness is an obsession by imaginary psychic entities.

We have to try and decide how far, if at all, the spontaneous cases of psychic experiences studied by the S.P.R. may be delusions. Delusions are common in most mental illness, but paranoria (delusional insanity proper) is responsible for most of the well-developed, systematised, psychic obsessions. It is by no means unknown for S.P.R. officials to have to deal with wild-eyed callers, who claim to be in constant telepathic rapport with something or somebody. Unsatisfactory persons, who haven't been able to hold their own in life, they have found refuge in delusions. Existence is only possible for them if they can convince themselves that they are above the common level, possessed of unique powers. The delusion may be based upon faulty reasoning, false premises or even hallucinatory

experiences; but whatever the mechanism no amount of reasoning or demonstration will shake their faith. These are the paranoids. Although common, they are fairly easily recognised, and their friends or relatives are usually only too well aware of their peculiarities. It is, therefore, doubtful if any of the published corroborated cases are paranoid experiences, although there is no doubt they occur frequently in the large number of uncorroborated unpublished cases.

Other forms of insanity give rise to psychic delusions, particularly schizophrenia of the paramoid variety. In this disease, there is a woolliness of thought, and the patient loves to direct his attention to psychological and psychic subjects, in which he can express vague speculations in high-sounding jargon. Auditory hallucinations are common and may be attributed to psychic forces. Once again, if the case be properly investigated it should never reach the S.P.R. publications. However, the present writer must confess that he is aware of one case, probably explicable by delusion, in which the contributor died as a certified patient in an institution shortly after an account of his "experiences" appeared in the *S.P.R. Journal*.¹

These flagrant varieties of delusion are of less significance for our present discussion than the subtle effects which take place in approximately normal minds. False beliefs, which rational argument cannot affect, are not the monopoly of the certifiably insane. This seeking refuge in delusion is a common enough phenomenon in the so-called normal person. The religious convictions of primitive tribes or unorthodox sects clearly enter the category of delusions. For many, the brutal truths of life could not be faced without such an opiate, and when one is already provided by the customs and traditions of the environment, the average mind cannot resist it.

The exact nature of the opiate does not seem to matter, so long as it increases one's importance in the scheme of things. Some people find a belief in psychic phenomena an excellent opiate. It does away with materialism and removes the unpleasant consequences associated with that theory.

In other words, when judging the reliability of an account of a psychic experience one must try to find out whether the story is just a wish-fulfilment. If the narrator has a deep-seated yearning for the supernatural, that may be sufficient to cause the strange exaggeration and lapses of memory which have already been discussed (*e.g.* the case of "Sir Edmund Hornby").

The person who is sensitive to telepathic impressions is often just the sort to have these queer psychological mechanisms in a well-marked form. As one lady remarked to the writer: "I have known people who have these experiences regularly, some of which I feel sure are genuine, but I have noticed that their descriptions are very unreliable, and they hardly know themselves when they are speaking the truth." It has always been maintained that the psychically sensitive have a tendency to mental dissociation. Dr Ehrenwald has just written a book which takes things further, and claims that the psychic gift is associated with definite schizoid tendencies. These considerations make it imperative to have all cases well corroborated.

¹The evidence for this statement is on record in the Society's private files.

VIII. CONFORMITY TO TYPE

Common features appear in accounts of apparitions that are widely separated in time and place. It is often argued that this conformity to type is good evidence of genuineness.

The assumption is that common characteristics are a guarantee of authenticity, but although this sounds reasonable, it is not strictly true. Ghost stories of fiction are by and large true to type, but they are not authentic on that account. The fashion is set by popular ideas on the subject, to which the stories naturally conform. Similarly, it may be that real life apparitional cases are equally coloured by current opinions of what a ghost should be like. It is highly significant that since the telepathic theory has been in vogue, sensational and purposeful ghosts are reported less frequently (27) and that dreams and mental impressions have largely taken the place of life-like apparitions. These changes are in keeping with the new idea of subjective telepathic impressions as opposed to the old idea of spirit visitations.

It has been remarked how the best evidenced cases differ from fictitious stories in that the apparition is usually more ethereal, and never leaves behind footmarks, or other physical traces. This is, of course, good evidence for subjectivity; it suggests that apparitions are hallucinations generated in the mind of the percipient, but it has no bearing on the question of supernormality. However, the fact that ghosts are hallucinatory explains how they can reflect the notions of the percipients, and change their character with the progress of ideas.

Apart from the overall resemblance, due to subjectivity and other common factors, ghost stories are readily classified into sub-groups, within which the similarities are closer and more detailed. The crisis apparition and the haunt are examples of well-recognised types into which cases fall with almost monotonous regularity. This conformity to type is often instanced as particularly good evidence for the supernormal. Of course it is nothing of the sort.

Accounts of witchcraft and black magic are true to type, but we are not forced to accept them on that score. The ill-reputed poltergeist is about the most true to type among ghosts, but he is the type most mistrusted by psychological researchers. Noisy ghosts, addicted to stone-throwing and like pursuits, have been reported from all quarters of the globe, and the similarity between some of the classical cases is uncanny. For example, the 1935 talking mongoose (28) has its counterparts in the little animals seen in the Epworth Haunting (29) of 1791 and the Willington Mill manifestations (30) of 1835-1847. The mongoose christened itself Jeff, whilst both the Willington Mill and the Epworth ghosts were familiarly referred to as Old Jeffrey. The mongoose, the Willington Ghost and the Ringcroft Ghost (31) of 1695 were all described as making chuck-chucking noises, whilst Old Jeffrey of Epworth was reported to have gobbled like a turkey-cock.

This strange tradition of the poltergeist, handed down through the ages, baffles many observers, but it is really no more wonderful than the persistence of folk-lore. Certainly it is no evidence for telepathy.

If apparitions are not psychic they are presumably morbid, that is dependent, like other hallucinations, on some temporary derangement of

mind or body. However, the average apparition is certainly different in character from the hallucination fever or insanity.

Dr Head, the well-known physiologist, investigated (32) some hallucinations occurring in sane, non-delirious hospital patients who were suffering from visceral disease. He found that the hallucinations were usually of unrealistic human figures. The face was generally indefinite, the limbs absent, and the form draped rather than clothed. As a rule there were no accompanying sounds and the figures were never articulate.

In a paper in *Proceedings* (33) Mr Piddington contrasts these characteristics with a typical psychic apparition, which is vivid, lifelike, normally clothed, and with clearly recognisable features. Its movements are accompanied by appropriate rustlings, it often says a few words, and it very rarely appears more than once.

This contrast is of interest, although it cannot be said to provide evidence of a different origin and still less of a psychic origin. The cases reported to the S.P.R. are not a random sample of all hallucinations. A lifelike apparition would be much more likely to be reported to a psychic society than a hallucination of smell, for example. It would be grossly unfair, therefore, to claim this characteristic as a special property of psychic cases. Then again, Dr Head's investigation was confined to certain types of patient. If he had concentrated on a group of people in whom belief in ghosts and telepathy was strong, he might have collected more cases of the S.P.R. variety.

IX. COLLECTIVE PERCIPIENCY

One cannot discuss spontaneous cases fairly without some mention of collectively perceived apparitions. Usually there is no recognisable correspondence with outside events. The apparition does not coincide with death, it is just an unexplained figure seen by two or more people when they are together in the same room.

If, independently, two people have at the same moment similar hallucinatory experiences it is a not unreasonable hypothesis that their minds are in telepathic rapport. But the contention rests upon the word "independent".

Consider the theory that the Indian rope trick is due to mass suggestion. Incidents have repeatedly been described (34) in which an onlooker a little way off, out of sight of the magician's suggestions, sees only a crowd of people staring at the sky, whereas people in the immediate vicinity can all see a boy climbing a rope and disappearing. A photograph taken at the same moment proves that the explanation is collective hallucination. These stories have never been sufficiently authenticated, but they illustrate the principle of a mechanism whereby more than one person may share the same hallucination without the intervention of telepathy.

The rope trick story is credible in view of the acknowledged occurrence of collective religious hallucinations, such as the case in which several people could all see a cross in the sky. Similar in principle, and well authenticated, are the collective hallucinations which sometimes occur at seances. In a recent book (35) Dr Dingwall mentions one such case which he personally investigated.

A medium and circle in Massachusetts believed that they were seeing materialised forms, spirit dogs would nestle in their laps, and heavenly music would fill the séance room. Dr Dingwall went there and found that hardly anything actually happened, the marvels described were imaginary phenomena built up round the medium by a process of suggestion and hallucination on the grand scale.

Another case was described at length by Professor Harlow Gale (36). Dr E. S. led a small circle of enthusiasts who shared with him regularly hallucinatory visions of Christ and other figures. The people seemed perfectly genuine, really believing that they saw these things, although to an outsider there was nothing there.

In these cases of collective hallucination in the séance room different people see the same things, not because of telepathy, but because they are motivated by the same desire and expectancy. Doubtless in fraudulent cases the dimly-perceived figure of a masquerading medium forms an ideal starting point for a collective hallucination.

The genesis of spontaneous collective hallucinations which occur in the absence of obvious suggestive influences is something of a mystery. We do not know why people are susceptible to them only on rare occasions. When such hallucinations do occur it is reasonable to suppose that they have some sensory starting point or *point de repère*. For example, the slight opening of a door might be the precipitating factor in a hallucinatory fantasy of someone coming into the room. If there were two people present who were at that moment in a state susceptible to hallucinations they might both "see" a figure entering.

This would not account for cases in which figures seen by different people are afterwards found to tally in detailed appearance. Although this claim is often made, it is very rarely substantiated with accounts written independently by the percipients without previous consultation. Granting that such cases occur, there are several possible explanations that do not involve telepathy.

We know from the phenomena of trance and dissociation in general that once a hallucinatory fantasy is begun it will tend to continue by making use of whatever suggestions or information is given to the percipient. That is why a perfectly honest medium can be led into any sort of absurdity if the sitter drops the appropriate hints. For this reason also the content of a hallucination may be somewhat infectious. The fixed gaze, the facial expression and the exclamations of the first percipient may provide hints which influence the content of the second percipient's hallucination.

I have been asked by one of my critics to try to apply some of these normal hypotheses to what is regarded as a good case of collective hallucination which occurred at Boscastle in 1933 (37). A man and wife were travelling by bus in Cornwall and looking out for a suitable guest house at which to stay. Presently the gentleman noticed a house with a garden containing some cane chairs and tables shielded by black and orange umbrellas. He pointed this out to his wife, who saw it also. When they got off the bus, she walked back to look for the house, but it was gone. They both made a thorough but unavailing search, and eventually concluded that they must have been the subjects of a collective hallucination.

Evidentially the case is poor. It is just conceivable that the house seen from the bus might have been a real one which they could not find again either because it was too well screened by trees or hedges or because they had mistaken the locality. The percipients did not write down independent records of what they saw. In the *Journal* nine years after the event they say they both saw the same house (although a detailed description is not given by both parties) and that they both noticed the garden umbrellas. They must have discussed the mystery many times in the interim and it may be that the apparent similarity of their experiences is the spurious result of the gradual fusion of their two visions. We have already noted tricks of memory far more extreme than this in connection with supposedly psychic occurrences.

Supposing for the sake of discussion that the account accurately represents what actually happened, is there no other explanation than telepathy? The Editor of *Journal*, in his comments on the case, pointed out that the hallucination appeared to depend for its motive upon wish-fulfilment. The wish of the percipients for a suitable guest house may have set their imaginations working in unison upon the construction and exteriorisation of a detailed picture of such a house.

Granting this, we still need to advance some theory to account for the striking similarity of the two exteriorisations in the detail of the garden umbrellas. Dr Morton Prince in his experimental studies of hallucinations (38) has shown that they are sometimes pictorial representations of subconscious thoughts about incidents forgotten by the conscious personality. Suppose that the percipients in this case, man and wife, had in the past pleasant associations with a particular guest house with umbrellas in the garden, that would be sufficient to account for this detail appearing in both their visions.

Thus, given the unknown conditions necessary for a hallucination to occur at all, the common wish to find a guest house would explain why they both "saw" a house. The fact that they were both looking in the same direction at the same scene with the same *points de repère* would account for the general similarity of their imaginary houses. Their common background of experience and associations would explain the appearance of similar details in their visions.

After having written as above, I was interested to discover that as long ago as 1894 Edmund Parish had advanced precisely the same theory to account for cases of this kind (39).

Of course this is all speculative. At this distance in time one cannot prove that this is the correct explanation of the case in question. However, so long as the sceptic can show that any sort of normal explanation is feasible, the case cannot be held to prove telepathy. Where there are two alternatives, normal and supernormal, it is logical to choose the former until it can be positively disproved. Here we are not actually forced to choose either alternative. The evidence as yet is not enough to establish that people do really experience independently identical hallucinations. If such cases occur at all, they are sufficiently rare to warrant postulating unusual applications of known tendencies in preference to an utterly new "psychic" principle.

A collective hallucination would be much better evidence for the super-

normal if it were veridical, e.g. an apparition coinciding with death. If collective hallucinations have a telepathic basis one would expect some such cases among them, but there are very few recorded instances. A paper in *Proceedings* by H. and E. B. Hart (40) contains the results of an exhaustive search through the literature for cases of collective percipiency. They did not succeed in finding a single first-class crisis case. They could only discover one second-class and a few that were described as of third-class evidential standard.

Various third-class cases were described by the Harts in their paper, but as they were mainly uncorroborated reminiscences of events in the distant past it is not worth discussing them here. I have been able to find only one veridical collective case of any value. (41) This was not included in the Harts' paper because it concerns a hallucinatory voice and not a visual impression.

Two young ladies, Margaret and Constance, out of doors together, both heard a voice calling their names. At the same time (12 noon) Constance's brother, who was lying very ill at home, sat up and called out "Margaret, Constance". The case is well substantiated, but the accounts were not written up until over three years later. There are slight discrepancies between the different versions. Margaret's brother, a friend of Mr Podmore, could remember nothing of the incident. The girls did not recognise the voice or connect it with the sick relative, in fact they seemed to consider it likely that it was a friend playing a prank. The case is certainly suggestive, but standing alone it cannot be regarded as good evidence.

X. EXPERIMENTALLY INDUCED HALLUCINATIONS .

The most direct evidence for the telepathic explanation of apparitions comes from the semi-experimental case, in which an agent, by concentrating his thoughts, makes his apparition appear to a chosen percipient. This would be as neat a proof as any, but again the evidence for such cases is slender.

S.P.R. literature contains only about half a dozen cases, not one of which is less than fifty years old. Numerous attempts have been made to induce apparitions by mental concentration, especially since the etheric double became popular, but failure has been the rule.¹ It is certainly not a repeatable experiment.

Even the few recorded cases are not at all convincing. Typical is the example in the Census Report (42) in which Mr Kirk makes himself appear to Miss G. The narrative reveals that Miss G. knew that Mr Kirk had for some time been trying to make her see his double. On several occasions he had got so far as to induce in her a state of restlessness, so that when the fully-fledged apparition arrived it was not exactly a bolt from the blue.

This example is an illustration of how inner details of a case can reveal unsuspected possibilities for normal explanation. It suggests that many more cases would be explicable if only the necessary details had been included in the accounts.

¹One such unsuccessful experiment was conducted by Mr Denys Parsons in 1946. A group of S.P.R. members all concentrated their thoughts upon the President of the Society, trying to make him see a bulldog, but without affecting him in any way.

CONCLUSION

It has been the aim of this paper to give some account of the technical difficulties involved in the investigation of spontaneous psychic cases, to show how much has to be done before the paranormal explanation can be said to be scientifically proved. Opinions will differ as to how near the evidence already collected is to positive proof, but it would be difficult to deny the need for more evidence while the majority of scientists remain unconvinced.

Some of the normal explanations put forward in this paper have been complicated or implausible. On the other hand the cases they are intended to explain are themselves very exceptional. For every comparatively good case which comes to be published by the Society, there are a hundred cases of vague coincidences or distant recollections which can be disposed of by the plainest common-sense. The few exceptional examples do strongly suggest a psychic explanation. The problem is whether they are due to an unusual extension of the normal factors so well-known in the poorer types of case, or whether they are really supernormal. The pioneers who collected the cases and discovered the problem have handed it on to us, whose duty it is to find a solution that will stand for all time.

Various suggestions have been made in the course of this paper as to what would constitute evidence more conclusive than that already obtained. More good modern cases are needed ; cases in which the facts given could not have been guessed or inferred by any stretch of the imagination of the percipient ; cases in which written note was made and witnessed at the time the impression was received ; cases in which the circumstances preclude fraud ; cases which are not just one lucky hit among many that never came true.

Everything depends upon the people who have psychic impressions recording them at once and sending them in to the Society without waiting for confirmation. In other words, if further progress is to be made, it is for those who have these psychic gifts and experiences to take action, as well as the investigators. This fundamental truth should be given the widest possible advertisement.

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A COMMENTARY ON
"THE INVESTIGATION OF SPONTANEOUS CASES"

BY W. H. SALTER

No worse fate could be imagined for a Society, born, as our own was, in a blaze of unorthodoxy, than that it should decline into a dull traditionalism and assumption of inerrancy. Those who are engaged in extending any department of knowledge should from time to time examine their foundations, and the return to normal activities after the dislocation of the war is perhaps a convenient occasion for us to examine ours.

Dr West in the foregoing paper has submitted to examination the spontaneous mental phenomena which were the material for the first large-scale enquiry undertaken by the S.P.R., and which have during most of its career engaged a large part of its activities. He brings to the work the indispensable qualities of a fresh mind and immense diligence. Spontaneous cases are scattered all over our *Proceedings* and *Journal*, but the larger part of them are to be found collected in the book, *Phantasms of the Living* (1886) and in two volumes of *Proceedings*, Vol. X (1894) which contains the report on the Census of Hallucinations, and Vol. XXXIII (1923) in which Mrs Sidgwick analysed a large number of cases printed in the *Journal* but not previously published. As one who was already an Hon. Officer of the Society when Vol. XXXIII appeared, and one of the regrettably few present members of the Society who were brought into close touch with both Mrs Sidgwick and Miss Johnson, the principal authors of the report on the Census, I can perhaps help some readers of *Proceedings* to place themselves at the historical angle from which they can best judge how much value the main S.P.R. literature on spontaneous cases still retains for the student.

The authors of *Phantasms* were Edmund Gurney, Frederic Myers and Frank Podmore. Gurney died in 1888, before the Census Committee began its work. The members of the Census Committee were Henry Sidgwick, Mrs Sidgwick, Frederic Myers, his brother Arthur Myers (who died before the report was completed), Alice Johnson and Frank Podmore. It would be superfluous to dwell on the intellectual abilities of each and all of the men and women named above, but the quite exceptional impression made on their contemporaries by the mind and character of Henry Sidgwick and Mrs Sidgwick should not be forgotten.

Most of the seven had considerable previous experience of this class of investigation. Sidgwick, Frederic Myers and Gurney had been associated in it since 1874, and to some extent before that. From her marriage in 1876 onwards Mrs Sidgwick was in the closest touch with their work. Podmore had been a member of the Oxford Phasmatological Society founded in 1879. That they were alive to the principal weaknesses inherent in reports of unusual occurrences is apparent from the whole tenor of *Phantasms*, and especially from Chapter IV, "General Criticism of the Evidence for Spontaneous Telepathy" (Vol. I, pp. 114-172).

But bias, where present, may defeat ability and experience, and it is

proper to consider how far the judgment of any of them was a biased one. Podmore was in his early days a Spiritualist, and Myers all though his life hoped to find evidence proving survival. If bias is to be imputed to either, it should be recognised that there was a conflict of possible biases, one operating in favour of accepting as genuine narratives which appeared inconsistent with general materialist principles, and another against accepting narratives which strengthened the position for telepathy as a possible alternative explanation for a great deal of the evidence that might otherwise count as survivalistic. I do not detect much sign of either bias in *Phantasms* or the Census report. The other members of the group did not, I think, start their enquiries with any bias in favour of the super-normal. Mrs Sidgwick and Alice Johnson indeed enjoyed an almost epic fame for persistent incredulity, as Podmore was already, in the middle nineties, beginning to do. In his *Telepathic Hallucinations : The New View of Ghosts*, published in 1909, Podmore re-affirms the position he had taken up many years before in *Phantasms* and the Census report.

I see no reason to suppose that any of the authors of *Phantasms* or of the Census Committee had any personal kink in judging evidence, but if he or she had, it must have been straightened out by the collective judgment of the group. As for the cases printed in the *Journal* between the Census report and 1923, when Vol. XXXIII of *Proceedings* was published, these were submitted to fresh examination by Mrs Sidgwick, and very critical examination as her comments show. Since that time most cases printed in the *Journal* have been critically discussed by two or three persons of experience before printing. The fact that so little reliance has been placed on the judgment of a single person puts the cases printed in our *Proceedings* and *Journal* on a quite different footing from any that can be claimed for even the best collections of cases printed elsewhere.

The early investigators took immense pains to establish personal contact with percipients and witnesses. As Myers, in his Obituary of Gurney (*Proc.*, V, p. 372), remarks :

“Almost every living witness of importance in *Phantasms of the Living* (and many whose names do not occur in that book) had, before the book was published, been personally visited by one of ourselves.”

The whole of this page and of pages 160 and 161 of *Phantasms*, Vol. I, should be studied. The following extract from Sidgwick's *Journal* for 1885 is also instructive :

“Sept. 19. Psychological Research is not disagreeable when the subjects of enquiry live in well-situated country houses and ask one to lunch : one feels, in fact, that one is making the best of both worlds. But when (as on Wednesday) one travels from 7 a.m. to 10 p.m. in abnormal heat on the day of the fair of the neighbourhood . . . the case is altered, and one has to remind oneself of the sacrifices made by other scientific investigators in the cause of truth. However, the results are on the whole satisfactory : the stories that become worse after oral examination are mostly those that we had already judged to be objectionable, and some are decidedly improved by the examination.”

(Henry Sidgwick : *A Memoir*, p. 388.)

It is regretfully to be admitted that of recent years less has been done

in the way of "oral examination", owing to difficulties of travel during and after the war, the shortage of investigators able to give the time, and possibly the lack of invitations to lunch in well-situated country houses.

In many spheres of human activity it is assumed that facts put forward as genuine after critical examination by competent, diligent and unprejudiced persons may safely be accepted by other people as the basis of serious decisions; law, business, private and public affairs are run on that principle. If it were not found to work, the historian's task would be hopeless. Does every scientist repeat over again for himself all the experiments and observations on which his studies are based?

We should therefore, I think, accept the accounts of spontaneous occurrences printed in *Phantasms*, the Census report and Vol. XXXIII of *Proceedings* as in the main reliable statements of fact. Even the ablest men and women are not infallible, and as a matter of prudence some allowance should be made for this when considering the theoretical implications of individual cases, especially such as do not run true to type. This matter of type is important. It was a striking feature of *Phantasms* that the cases which stood up well to examination possessed certain characteristics which differentiated them from the popular tradition displayed in fictional ghost-stories, and exemplified in some narratives purporting to be authentic, but breaking down when examined. Gurney seems to me to have been fully justified in claiming this as strongly supporting the credibility of the cases he quoted (see *Phantasms* I, pp. 165, 166).

But in applying conformity to type in support of credibility, it must be remembered that there was a considerable lapse of time between *Phantasms* (1886) and Vol. XXXIII of *Proceedings* (1923). *Phantasms* was a pioneer work: many of the cases the authors had before them were already old, and although their argument is based on recent, first-hand cases, and their conclusions show that they had been able to free their minds to a very remarkable extent from the influence of the traditional ghost-story, they would have been more than human if they had achieved absolute detachment.

Conditions were different when the Census Committee presented its report (1894) and still more so when Mrs Sidgwick wrote her paper in *Proc.*, XXXIII. Cases from the mythical past could no longer be suspected of influencing the judgment of enquirers into contemporary narratives. If, therefore, any type of case is prominent in *Phantasms* and has quite, or almost, faded out in *Proc.*, XXXIII, it ought to be considered suspect, unless, of course, supported by still more recent examples.

Most of the cases in *Phantasms* seem to me unassailable on this score, but I have long felt some doubts as to *veridical* collective apparitions, one of the stock supports of the argument for physical objectivity. They are discussed at length in *Phantasms* with several examples, many rather old, but are poorly represented in the Census report and still more poorly in *Proc.*, XXXIII. In the main, however, and apart from this exceptional instance, the authors of *Phantasms* acquit themselves of any inclination towards accepting narratives as genuine because they embody incidents of a kind imbedded in occult tradition.

In one other respect *Phantasms* shows a defect due to the rudimentary

state of psychical research when it was written, namely in the treatment of the evidence of adolescents. It is, I think, a fair inference from the outcome of the experiments with the Creery sisters (see *Proc.*, V, p. 269)¹ that the authors had not yet realised the peculiar deceptiveness of what is known as "the teen-age", a factor first brought prominently to the notice of psychical researchers by Podmore's article on Poltergeists, in *Proc.*, XII. In the one case in the book which was later shown to be a hoax (*Proc.*, XIV, p. 114), the principal witness was a youth of eighteen. It would not, however, be reasonable to take either the Creery incident or the case of the youth of eighteen as any indication that the early investigators of spontaneous cases were easy victims of hoaxers.

In the course of sixty-five years not a few attempts have been made to pull the Society's leg, some of them very ingenious and elaborate attempts. We may be fairly certain that any *successful* attempts would be trumpeted abroad and exploited for all they were worth by hostile critics. How many successes have they claimed?

The foregoing criticism of *Phantasms* as regards (1) veridical collective apparitions, and (2) cases depending on the evidence of adolescents, affects, if it is well founded, only a very small proportion of the evidence set out in that book, and barely touches the later collections of cases. The serious question seems to me not as to the facts, but as to the inferences to be drawn from them, and the problem of how far chance will account for them. *Phantasms* and the report on the Census built up an elaborate statistical argument to show the inadequacy of chance. But there is only one type of spontaneous case which can be forced into a quantitative framework, namely, the so-called "death-coincidence", and that only by the unsatisfactory procedure of disregarding all correspondences between experience and event other than the time-relation between them. This weighted the scales in favour of chance. On the other hand, while the Census Committee aimed at getting 50,000 answers to their questionnaire they only obtained 17,000, rather a small number perhaps to carry much statistical superstructure. Fortunately both Mrs Sidgwick and Alice Johnson were well trained in scientific method, the former in physics, and the latter in biology, and they doubtless made as accurate an analysis of the material as its nature admitted.

Historical perspective is needed here. The enquiry was novel and the experimental data at the time of the Census were scanty. There has recently been a tendency to treat them as poor in quality as well as in quantity, and to make perhaps exaggerated assumptions of incompetence on the part of the experimenters. However that may be, scanty the data certainly were, and it was natural that an attempt should have been made to eke them out by extracting the last statistical ounce from the refractory material of the spontaneous cases.

Speaking for myself, I regard the close correspondence in a variety of detail between experience and event as shown in a large number of cases reported by a host of percipients and witnesses, and examined by several experienced critics over many years as being absolutely conclusive against

¹ In these the authors withdrew some published evidence because in other experiments with the same subjects held under different conditions cheating was discovered.

chance-coincidence. But I am painfully aware that this opinion is not shared by all my fellow-members, not to mention the benighted millions still without the fold. For those who seek a different kind of proof of telepathy, experimental data are, through the labours of Mr Tyrrell, Mr Carington, Dr Soal and others, as plentiful now as they were scarce when *Phantasms* appeared, and that being so, the statistics regarding death-coincidences in the early literature seem to me no longer of prime importance.

But the complexity and variety of the spontaneous cases, which make them unsatisfactory for the purposes of quantitative analysis, are precisely the factors which give them value as an approach to the understanding of the still more complex phenomena of trance-mediumship and automatic writing, and, generally speaking, of the whole central problem of personality. I cannot think that if Dr Rhine had been as familiar with the spontaneous cases as he is with experimental E.S.P. he would ever have put forward the paradox that "precognitive clairvoyance can account for all the 'evidence' on record for telepathy" (see *Proc.*, Part 172).

It is therefore much to be regretted that, while in all probability cases like those recorded in our early literature occur no less frequently than they did a generation ago, by far the commonest type of spontaneous case (so Dr West informs us) now being reported to the Society is the precognitive dream. Of all types of spontaneous case there is none of which it is so hard to gauge the supernormal content (if any) as this. The frequency of dreams increases the probability of chance-coincidence: the prevalence of symbolism in dreams makes their interpretation problematical: prediction is worthless where there is doubt as to the thing predicted and as to the time of fulfilment. These three factors in conjunction make precognitive dreams, except in a few instances, of little value to the psychical researcher.

Other types of spontaneous cases are most valuable, if properly evidenced. Any evidential weaknesses that may have affected the value of some of the earlier cases can be avoided if a few well-known but not universally followed precautions are taken: a signed and dated statement made as soon as practicable after the experience; independent corroboration, if possible; careful verification of the event; and so on. Detailed advice can be obtained from the officers of the Society, and it is hoped that many members will have occasion to consult them, so that the S.P.R. may once more enjoy abundance of this very fruitful form of research.

FORECASTS AND PRECOGNITION

BY C. DRAYTON THOMAS

DURING the war of 1939-45 my studies with Mrs Osborne Leonard were interrupted and I could only visit her at irregular intervals. But at most of these the future was mentioned with forecasts of coming military events. With few exceptions these came to pass. Some of these events could have been guessed by a mind which had the ability to ascertain the plans, and the reserves in men and material, of the various belligerents. But no single incarnate mind had this ability, and no one person at any time knew all these facts.

The possession by my communicator of this ability, and this information about military affairs, would sufficiently explain the accuracy of the forecasts. There were, however, exceptions which do not easily admit of this explanation. These would seem to have been instances of pure precognition.

The words "forecast" and "precognition" are frequently used as alternatives for the same thing. As I shall need to distinguish between explicable forecasts and those which are at present inexplicable, the latter will, in this paper, be termed "pure precognition".

Both before, during, and after the war, my communicators gave forecasts of events which were to concern me personally. These rarely failed to materialise. Their accuracy impressed me, and it seemed desirable to inquire if they could be explained. I found that they fell into groups which will be here described and illustrated.

CLASS A

FORECASTS BASED ON PLANS PERCEIVED IN HUMAN MINDS,
OR ON CIRCUMSTANCES UNKNOWN TO THE RECIPIENTS

HOSPITALITY

My wife's parents, speaking through Feda, Mrs Leonard's control, once told me that they were looking forward to seeing us shortly giving hospitality to visitors: there would be two of them and possibly a third. Neither my wife nor I could divine the meaning of this as we certainly had no visitors in prospect. But two days later came a letter from my wife's brother saying that he was coming to England with his son and daughter, and that he wished to stay with us until his Bromley house could be made ready; that his son would probably go to a relative, although that was not decided; anyhow two of them would come to us.

Thus the plan was clear-cut in his mind and the letter was on its way when the forecast was given.

If, subsequently to the giving of a forecast, human plans are changed, this may alter the date given for the foreseen event.

THE WHITEHEAD BAG

In my book, *Life Beyond Death with Evidence*, p. 100, there is a full

account of this striking forecast, apparently based on the communicator's reading in the mind of my mother's friend, Mrs Whitehead, the intention to give a present. Circumstances led to a postponement of the gift, but the communicator persisted in the forecast, which proved to have been correct.

Here is the story in brief.

At a sitting on December 22nd, 1922, my sister Etta (communicator) asked me if our mother had received the gift of a bag. Fedra continued with a description, "A soft silk bag, not all one colour, studded or dotted in design, or partly so." On January 5th I remarked that no such bag had appeared.

Fedra: "Etta's idea was that it would be a Christmas gift to her mother. It may have been delayed. For she still gets that idea and feels that her mother will have that bag." That confidence was justified, for the bag arrived and met the above description exactly. It was given on my mother's birthday, January 27th, by Mrs Whitehead, who was then on a visit to her. Mrs Whitehead informed me that she had made this bag in the autumn, *intending to present it at Christmas*, but later decided to keep it back for the birthday gift. When later I asked Etta how she had ascertained her facts she replied that it was done in the usual way by perceiving the thought in a person's aura.

Might this forecast be attributed to telepathic action? If so, by whom? Neither Mrs Leonard nor I had any conscious knowledge of the matter, and the former had not met Mrs Whitehead.

Had any such forecast been received in dream or by impression or in automatic script it would have been supernormal. As it was given by a communicator who was apparently employing a faculty which *to her* is normal, we may term it an instance of "paranormal telepathy".

In this class "A" may be placed warnings of physical danger, of coming misfortune, sickness or death, such as are received by impression, clairvoyance, clairaudience, or in dreams.

One has an impression that a letter is about to arrive from so-and-so, or that one will almost immediately meet such-and-such a person. These impressions are so frequently justified by the event that they seem more than chance coincidences.

There are also those compelling urges which lead the recipient to visit some person, or render some service, not previously thought of. Clergy have recounted such impressions which led them to visit some parishioner whom they discovered to be in pressing need of their ministrations. A friend tells me that his automatic writing one day named a family but slightly known to him and stated that the people were in need. Tactful inquiry elicited that the mother had remarked to her children that she could only see her way to provide for the next two days and that after that they might suffer want.

Such forecasts or impressions seem to be based on facts already existing, or conditions which will eventuate in the facts. They may come from the percipient's Subliminal Self, or from discarnate friends and guardians.

We now pass to an extension of this type of forecast.

CLASS B

FORECASTS BASED ON PLANS PERCEIVED IN HUMAN MINDS, TO WHICH COMMUNICATORS ADD PLANS OF THEIR OWN AND CARRY OUT THE COMBINED PLAN BY INFLUENCING HUMAN ACTION

THE LUTON VISIT

During my first sitting with Mrs Leonard, February 3rd, 1917, a forecast was given which Feda seemed only partly to understand and which suggested nothing whatever to my mind. I quote from condensed notes taken at the time :

There will be a little journey to take some temporary work and in the end this will lead to something important. The work looks unimportant but will prove to be important. It is, say, about thirty miles from London. Your guides are preparing for it and will see it through with you. (Here came a pause of about one minute during which Feda seemed to hold a whispered conversation with some person invisible to me.) It seems to Feda that the importance is on account of someone you will meet there.

I was perplexed and could understand nothing of this. My engagements included several Sundays away from home, among them a Sunday School Anniversary at Luton, with a Lecture on the Monday evening. As the date for this, May 7th, drew near I was informed that my home would be with a Mr and Mrs Squire. As we walked home from the morning service Mrs Squire said that a remark of mine prompted her to ask if I had read Sir Oliver Lodge's book *Raymond*, and if I knew anything about the possibility of communication with those whom one had lost. I replied suitably and she then told me of their having recently lost a son in the war. We had several talks on the subject, and finally I invited her to share my forthcoming sitting with Mrs Leonard. It was only then that it occurred to me that as this was for her and her husband a very important matter, it might be the work hinted at in the forecast. Remembering that the foretold journey was to be one of "about thirty miles" I inquired how far was Luton from London. The reply was, "Thirty miles!" As this agreed with the forecast I was all the more interested in the next remarks of my hostess, which were to the effect that she was glad I had come to them for these three nights as it had given her a new outlook and hope, but that she had narrowly missed the chance. She went on to explain that, on being asked to entertain me, she had refused, because since losing their son they had been too sad to enjoy social intercourse and preferred to be alone. However, the official who arranged for the preacher's entertainment had asked her to reconsider, and presently approached her a second time on the matter. She had again refused, but when he asked her a third time, and was very pressing about it, she finally, but with reluctance consented.

Realising by now that there might be more in this than appeared on the surface, I wrote to the above church officer asking if he could confirm what had been told me. He replied that, knowing I should be comfortable with this family, he had felt a particular wish to put me with them and, *without knowing why*, had felt unwilling to take a refusal.

Mrs Squire later accompanied me to a sitting with Mrs Leonard, at which I witnessed a happy reunion with her son. Subsequently she went alone and these sittings brought joy and thankfulness to her and the family.

This bears out the forecast given three months earlier: "It will lead to something important . . . your guides are preparing for it and will see it through with you. . . . The importance is on account of someone you will meet there."

Consider how neatly these events dovetailed together.

A. I am engaged for Luton on a given date.

B. The entertainment official decides to ask Mr and Mrs Squire to take me for the occasion.

C. He feels an unaccountable reluctance to accept their refusal and finally overpersuades them.

D. A remark of mine leads Mrs Squire to ask about possibilities of communication.

E. She finds the comfort and assurance needed.

I was struck by the persistence of the official in persuading the Squires to entertain me, since there were many other homes to which I might equally well have gone. Also that Luton should be the exact distance from London named in the forecast. How unaccountable all this when viewed from the standpoint of common experience, and yet how simple to the enlightened mind! The need of the bereaved mother was perceived, her prayers "heard". My knowledge could help her. I was to be in her town. The official could be impressed to get me to her house, and she could be prompted to question me.

Mr and Mrs Squire had been unknown to me until this visit, nor had I previously heard anything about them.

Here, as in other cases of this class, we note evidence of a purpose which was not in the sitter's mind and cannot possibly be ascribed to him. Whose purpose was it if not the communicator's?

Myers (*H. P.*, p. 265) says: "I ascribe some precognitions to the reasoned foresight of disembodied spirits . . . their not infallible inferences from what they know."

LIVERPOOL STREET STATION

At a sitting in April, 1935, I had a long conversation with Elsie, a lady with whom I had close friendship in the long ago and whom I had hoped to marry. She died. During this talk she made a forecast which puzzled me at the time and to which I had absolutely no clue. Its substance was as follows:

Quite soon you have to go to a place very closely associated with me. You may not know yet that you will have to go, but when you do you will say, "Oh, full of memories of her!" What I say now belongs to a big subject, the plan of life. Part of our lives is planned, but we are free co-operators. If we do not interfere, the plan outworks for us. There is no forcing, but instinct guides us to co-operate with it. One is free to fall in or to step aside. It applies to you; your steps are being guided easily and firmly. Well, I have a feeling that soon you will find yourself at a place associated in your mind with me. You

have been there several times and I have been there several times with you. You think of me there where you walk down a little hill, not a steep place, and if you notice it you'll remember other times.

Feda then added: When you get to a corner is there the word "Avenue" written up, or is she only thinking "Avenue"?

As above remarked, I failed to find any satisfactory interpretation of this and, as usual with forecasts, put the matter aside until time and the event should explain it.

Six days later I went to Liverpool Street Station to meet my friend Major Mowbray, whom I was to accompany for a meeting in Cambridge. As there are two routes to Cambridge, via Kings Cross or Liverpool Street, I had written to Mowbray asking him to decide which route and train. So that it was he, and not I, who fixed the route. As I reached the sloping road leading down into the station I realised that this fitted with Elsie's forecast. It was impossible to enter that station without recalling the many times we had been there together: indeed it was one most memorable conversation we had there which finally led to our engagement. On our many journeys together for days in town, this was the station to which we came. It is for me ever redolent of her memory.

Thinking over the forecast during the journey, it occurred to me to ask Major Mowbray if he would give me a list of the associations which Liverpool Street Station brought to his mind. It seemed that he had used the station for many years during his residence in Cambridge and he gave me a longish list of its associations for him, but did not mention "the hill". Nor was he aware of any "avenue" thereabouts. I asked a second person the same questions with the same negative result.

What then had the reference to "Avenue" meant? Elsie, having used Liverpool Street Station all her life and done shopping in its neighbourhood, might well know the names of the streets better than most people. I therefore inspected a map of the district: to my surprise it showed, close by the station, two streets the names of which both ended with the required word. There was Finsbury Avenue, a small and unattractive lane, and Throgmorton Avenue which, I found when going there, displayed its full name conspicuously on both sides at its end nearest to the station. It is only some 200 yards distant from Liverpool Street Station.

Thus within six days of receiving the forecast I found myself fulfilling it to the letter, and by no choice of my own, but by Major Mowbray's choice to travel via Liverpool Street. Had he chosen the alternative route the forecast would have failed. Why had Elsie risked it? My theory is that, in such cases, the communicator relies on an ability to influence the person concerned and, from previous practice, is fairly sure of success.

The introduction of the word "Avenue" would seem to have been in the nature of a clue, or an additional description, by which I might be certain that I had discovered the place to which the forecast referred.

THE ANNUNCIATION PICTURE

During a temporary residence at Harrogate I came to town for a sitting on November 5th, 1942. On this occasion Elsie spoke for almost the whole

time. She began with a reference to background and foreground which, as later appeared, was a designed preparation for the description of a picture. Here is the substance of what was said :

Feda : Elsie is in the background of your mind while other things are in the foreground. The slightest thing may bring her to your recollection and into the foreground again. She is never lost on the canvas of your memory, nothing dwarfs or so obscures that she is lost in the picture. She is always there and is brought to the fore when necessary. When one passes over, the background of that spiritual canvas comes into the foreground. It would not be right for her to come into the foreground all the time. She has helped you by being in the background.

Now why this harping on the words background and foreground? Evidently it was a preliminary devised to assist reference to a certain picture of which she wished to speak.

Feda : " Lilies " ; she is giving me something about lilies, a picture which should remind you of her. They are not real flowers, not in a pot, but in a picture. And not only lilies but words also, something about it should remind you of her and her position with regard to you, a sort of reassurance of all she stands for and remains in your life, even if the words background and foreground are not literally given in this picture.

Feda does not understand where this picture is, and it may be better not to ask, as she might not be able to explain. She hopes you will find it and get the message from this picture.

She says that occasionally she and Etta can impress you to act in some way by influencing your mind. Before you come across anything we tell you of, observe what happens to your consciousness a second or two before ; there is a slight blank or suspension of thought. If you will notice that you may realise that something is happening. She will try to show you this picture.

The above would seem to have been a carefully prepared speech planned to introduce references to a particular picture which I was to look for and notice. That we had no such picture in our Bromley house I was certain, and so resolved to inspect all pictures in our temporary home at Harrogate on my return. I had arranged to spend the following day with my cousin at Harpenden and there, during the evening, we sat listening to the radio. When it came to the American Broadcast I was sitting facing the fire and presently, wearied of listening, leaned back in my chair with mind more or less vacant. Very suddenly came the thought that I might use the opportunity for glancing around the room to see if any of the pictures showed lilies. After inspecting three of the walls I turned round to see what might be behind me. At once I noticed a picture representing an angel with the annunciation lily in her hand. Rising to make a closer examination, I noticed that it met exactly the description given at the sitting. These were its chief features :

" Background ; Foreground ". The background is strikingly separated from the foreground by a distance of several miles ; far away one sees

water with shipping and an island. There is almost nothing but foreground and background. Elsie and I often visited picture galleries and she was a keen observer of detail.

“Position with regard to me”. The angel speaking to Mary (one from the Beyond with a message to one on earth) is analogous to Elsie from her life in the Beyond speaking to me.

“Get the message from this picture”. It will be recollected that the angel said to Mary, “Hail, thou that art highly favoured” (Luke 1, 28). I am indeed highly favoured in many ways, and that Elsie thinks so has been abundantly shown by her in many previous messages.

This discovery of the picture and its apposite character came as a real surprise to me. That the urge to look for the picture came suddenly when my mind was somewhat blank favours the idea that Elsie was prompting me to look for it. Fedra had said, “She will try to show you this picture.”

How do I interpret this incident? Something as follows: Elsie would know that I was to visit my cousin, either from her own observation of my thoughts or in conversation with my father and Etta. They would, if she required it, show her the house and leave her to select some object there which would be suitable for a test message. The presence of a plan is the outstanding fact, and the plan included a reliance on so influencing my mind that I should notice the picture which she had selected for the forecast.

It was some six years since I had been in this room and I was unaware that my cousin possessed any such picture. The parallel suggested between an angel speaking to Mary and Elsie’s communications was an idea so entirely new that I am positive it had never entered my thought.

I think that the events above recorded warrant the conclusion that invisible helpers not only perceive intentions in human minds, but that they sometimes exert a telepathic influence by which they contrive to guide human actions into harmony with their own purposes.

CLASS C

FORECASTS MADE BY COMMUNICATORS, FOR THE CARRYING OUT OF WHICH
THEY REQUEST HUMAN CO-OPERATION

Dr A. T. SHEARMAN

My sister Etta and I had been on intimate terms with Dr A. T. Shearman and his wife. He had been a widower for many years when, in June, 1936, Etta gave a long communication for him from his wife, emphasising that I was *not to forward it* until hearing from him, which she was confident I should presently do. I had last seen Arthur Shearman in June, 1931, and we rarely wrote except at Christmas. Etta realised that this message (which contained some 650 words and many evidential items about which I knew nothing) was part of a plan and intended to achieve some purpose about which I was kept in the dark.

In September I had a letter from Arthur with a gift of his latest book. With my reply was enclosed the above communication.

Arthur sent me a full annotation on the evidence which had evidently greatly impressed him, for he said, among other appreciative remarks,

"I am bound to say that in my judgment proof is established. . . . I did not look forward to a revelation so really important from a scientific point of view and as welcome to myself as this is."

In giving me her message Etta had remarked,

"I think there is some reason for her wishing to help Arthur but don't say anything about this part ; just keep to yourself what she says now. She feels he needs help *himself*, but doesn't wish to say that to him."

On my reporting at the next sitting that Arthur was impressed by the message, Etta remarked, "It may help him. It is the right time for it. There have been things happening with Arthur, developments that you don't know anything about."

It was only three months later that the reason for this communication from Arthur's wife became apparent. He died the following January after some months illness. From his doctor I then ascertained that it was just about the time when his illness entered its final stage that the communication had reached him. It would seem, therefore, that my communicators realised from Arthur's health condition that the end was not far distant and had therefore planned to cheer him by messages proving the identity of his wife and her intimate acquaintance with his doings. Note Etta's confident prediction that Arthur would be writing to me.

(A more complete account of this incident was published in the *S.P.R. Journal* for November, 1937.)

Here again purpose is evident, but it was not any purpose of the sitter and cannot be ascribed to any incarnate human being.

CLASS D

FORECASTS MADE BY COMMUNICATORS BASED ON PLANS MADE BY THEMSELVES

THE FORETOLD LETTERS

On several occasions it has been announced in my sittings that I shall shortly receive a letter ; details are then given by which this letter may be recognised. Here are two illustrations :

On October 28th, 1938, my communicators inquired if I had recently received a letter from a middle-aged man about his son. As I had not, they gave me some particulars about the case.

Within two weeks came a letter which met the forecast, and in a correspondence which followed, it appeared that the writer's deceased son had prompted his father to write, hoping thereby to establish communication with his father through Mrs Leonard.

A second case is on similar lines.

March 17th, 1939 :

Feda : Will you keep a lookout for a letter asking you about a lady, not one we have had, a new one. I think that someone has written, or is writing, to ask if you can help about her. The one she's expecting to write is a man.

After certain identifying details had been given we continued :

C. D. T. : Won't it be a pity, Fedra, if after taking all this trouble I don't get any inquiry?

Fedra : I think you will and soon. . . . The lady seems satisfied and says, "*I'll see what I can do.*" (Italics are mine : note this intention of exerting influence.)

Ten days later I received a letter from a Mr C. G. Netherton of Bournemouth. Correspondence followed and we found that out of thirty-one items given for purposes of identification, twenty-three were definitely accurate. Mr Netherton told me that the idea of writing to me had been in his mind since March 2nd, but that he only decided to send the letter a day or two before he actually did so. Mr Netherton informs me that his wife had been a firm believer in the possibility of psychic communication. It looks as if she had been impressing him to write, and that a belief in her ability to do so was the ground of her forecast that I should hear from him. Other letters of a like character have been similarly foretold. The inference is obvious.

The foregoing classes B, C, D, can be best explained by the ability of communicators to ascertain the thoughts and intentions of men, subconscious as well as conscious, and by plans formed in communicators' own minds. With those data they proceed to draw inferences in accordance with psychological laws as familiar to us as to them. It may well be that, in addition to this means of acquiring their data, they make use of causal laws, whether physical or psychological or both, about which we on earth know nothing. Consider how a meteorologist bases his forecasts of coming weather on a knowledge of laws governing atmospheric movements which are unfamiliar to ordinary people.

CLASS E

A FURTHER CLASS OF FORECASTS MAY BE IN THE NATURE OF EXPERIMENTS WHICH DISCARNATE INTELLIGENCES UNDERTAKE FOR PURPOSES OF THEIR OWN

THE GARAGE PROPRIETOR

We once owned a house in Ramsgate. My parents occupied it until my father's death. Later it was sold and my mother rented a house on the sea-front. I frequently visited her, and always put my car in a nearby garage. The following was given eight years after my mother's death.

The Forecast

Fedra : Your mother says she feels you may be hearing about Ramsgate and the old days there. She feels it strongly ; it is strange how she feels it. Not very interesting, but will take your mind back to her other house there, also some talk about property.

Here are the stenographer's paragraphs relating to the above :

Fedra : Your mother says, I just wanted to say that I felt that you might be hearing some news from people at Ramsgate.

C. D. T. : Oh, really?

Fedra : Yes, and she is not sure if it's important news and she is not

even sure if it's coming from Ramsgate, but it will be about Ramsgate and about the old days at Ramsgate. She felt it very strongly, she says. It's strange how she feels it. (Here I suggested that possibly the idea originated in my having recently read some letters she wrote me from Ramsgate long ago.)

Feda : She thinks not, because she knew about those old letters. . . . She feels something more than that, something from other people, something from outside.

C. D. T. : I will look out for it with interest.

Feda : Yes, it will be interesting because she has mentioned it ; but she doesn't think very interesting otherwise. She thinks that it may specially be about property there. You remember the other house she had?

C. D. T. : Very well.

Feda : She feels that there may be some allusion to it, or something that will take your mind back to that other house. That's what she feels.

Note in the above how appropriate to the later event are the words :

“ hearing some news about Ramsgate ”

“ not important ”

“ not sure if it's coming from Ramsgate ”

“ thinks it may specially be about property there ”

“ feels that there may be some allusion to it (her old house Birkdale) or something that will take your mind back to that other house.”

The Fulfilment

Exactly three weeks after the above was spoken at my sitting, a gentleman accosted me in Bromley High Street. He introduced himself as the proprietor of the garage I had so regularly used at Ramsgate, and we exchanged reminiscences of my cars and of my driving with my mother. He inquired about her and then asked if we still had our old house. I replied telling him of its sale and of the other house my mother afterwards rented. From this he proceeded to tell me that he was living just outside Bromley, but had decided to go back to Ramsgate and was now inquiring about houses there. He then showed a letter which had that morning come from a house-agent and which offered him a house and a bungalow. We spent some time discussing the relative merits of these two properties.

Only after we parted did I realise that this conversation had fulfilled the forecast so recently given.

I am well aware that ultra-critical people may assign this forecast to the action of delayed telepathy between this gentleman and the medium or me. And indeed there seemed to be a possibility, which I saw on reflection, of some such telepathic explanation. It might be something as follows : This gentleman seeing me in Bromley decided to speak when opportunity offered. On receiving the letter from the house-agent about properties in Margate and Ramsgate he decided to discuss it with me should we shortly meet. This intention, being fairly strong and directed to me, reaches my aura where it remains decipherable. Let us therefore suppose that Feda during the sitting becomes aware of it, but mistakenly attributes it to my mother who is then speaking.

I did not consider this suggestion in any way satisfactory ; it seemed to

raise more difficulties and improbabilities than it solved. But it decided me to put questions should I again meet the garage proprietor. A meeting came about accidentally this morning and I write this immediately on reaching home. He had seen me in Bromley, but that was *four years ago* on his first arrival in the neighbourhood. As he had not seen me again he concluded that I no longer lived here.

This seems to dispose of the telepathy hypothesis and to absolve the gentleman from any thought about me which could have brought about the forecast.

How then shall the forecast be explained? My mother, on being asked this at a later sitting, could only reply that she had felt it strongly, but did not know how the idea came to her.

My Suggested Explanation

On thinking the matter over there emerged from my store of memories one which seemed to form some basis for a reasonable hypothesis. My sister had long ago described how plans were made in higher spheres and passed thence to those whose work lay with earth. "Suppose," she said, "the thought is sent that the poor in London should almost immediately be assisted in some special way. It goes forth as an impersonal message urging help to the needy. As it is passed down through the spheres it gains individuality until it would be caught by some who, when on earth, were in touch with London conditions and possibly by some whose friends were living there in poverty. The next step will be that promptings are given strongly by them to social workers, or charitable persons, who so become impressed with the idea that something should be done."

More was said, but the above suffices for our purpose. It states that some of the plans made in the Beyond require *human co-operation* and that therefore human minds have to be impressed.

It would be natural that general directions should be given out by beings of greater experience and wisdom and passed down to others for application in detail. The latter may not always understand the plans in which they thus take part and help bring into effect. This is the method adopted by National Governments when higher officials issue general directions which are carried out in detail by subordinates.

If such be actually the case, we can understand how it is that some communicators give forecasts which they themselves do not understand, but merely "feel", and also that some of these dimly perceived directions may have a scientific or experimental purpose in view.

One can realise that the impressing of human minds is not easy. Some would have more aptitude for it than others. In my long experience of receiving messages from first-time communicators it has been noticeable that, while some did well, most did it indifferently and many failed to be effective. This being so when it is a case of impressing the Control during the favourable conditions of a sitting, how much more uncertain must be the impressing of men and women who are in the midst of their daily avocations and preoccupied!

To quote my sister again, "We have to learn the effect of our power and to what extent it may be distorted or interfered with on your side." Many will prove unreceptive and others unresponsive.

Another statement may be suggestive when added to the foregoing. We are told that in the Beyond there are groups of people who were interested in psychic studies while here and who pursue them still. One can imagine how such persons will wish to discover to what extent their telepathy is reliable when directed to minds on earth. To discover this they would need to experiment. And each new arrival who elected to work for earth would find it necessary to practise this art.

The Plan

With the foregoing in mind let us picture how the particular forecast we are discussing might have been planned.

Certain facts would be already known to the planners.

1. That the garage proprietor and I both resided in Bromley.
2. That he was hoping to get a house in Ramsgate.
3. That he would remember me, my mother and her house.

The problem of the planners would therefore be :

- A. To bring about our meeting.
- B. To impress him to speak to me.
- C. To induce him to refer to Ramsgate days, our house there, and to property.

Should they succeed in this it would be *evidence to them* that their telepathic effort was successful ; if it failed they must learn how to become more effective.

The plan succeeded as foretold. The garage proprietor was led to cross my path. While walking along the street I noticed a slightly familiar face approaching. Not recollecting the name or the place where I had seen him, I should certainly have passed by had he not accosted me. It was he who spoke to me and asked if I did not recognise him. So the telepathic influence would seem to have been exerted on him and not on me. I was taking my usual shopping route, whereas he was rarely in Bromley. I have seen him but once since and that was a few days after. That he should *on this very morning* have received the letter offering him a choice of properties made it *the ideal day* for bringing about the fulfilment of the forecast.

How long previously this may have been planned we cannot guess, but its fulfilment was twenty-one days after my receiving the forecast.

Further Speculations

How came the plan to be made the subject of a forecast? It may be that to make my mother "feel it strongly" and then tell me of it at the sitting was an exceptional addition to ordinary procedure. Possibly the planners were testing their ability to impress my mother from their higher sphere ; if so, that would account for her receiving the impression vaguely and without full detail.

Another suggestion would be that my mother happened to catch the thought which was directed to me by planners on a sphere beyond hers. My father, speaking through Mrs Leonard, once told me that he had caught the idea of a building close to our house. This seemed most unlikely to happen, yet the event proved that my next door neighbour had been

planning to build, and did presently build, a garage close to our dividing fence. Many similar instances could be given.

Again, it is conceivable that the planners wished to draw my attention forcibly to the subject of precognition with a view to emphasising the fact of their planning for earth. Certainly this incident, together with others about the same time, did very definitely cause me to begin a study of precognition.

Whether the above speculations are in accord with fact or not, it is, I consider, highly probable that such plans are frequently decided on, even if rarely made the subject of forecasts. Can we suppose that ardent investigators of psychic problems lose their interest when transported to another realm of life? Would they not be curious to investigate from their new standpoint? Others may have done it before, but each who wished to work for the good of humanity would need to learn for himself how to influence human minds. Until this can be done with some degree of certainty no important work for earth could be undertaken. Such experimental practice might well be sometimes made the subject of a forecast, as providing a more definite mark at which to aim. And the fact that the majority of forecasts relate to unimportant matters is in accord with this suggestion; for it is *just such trivial forecasts* which *prove most arresting* to us on account of their unlikelihood and which also *least interfere* with the usual course of our lives!

That a certain amount of experimenting is undertaken by some in the Beyond is a conclusion suggested by other instances. My father, in the course of earlier sittings, often spoke of his wish to discover whether he could do so-and-so. Often he failed, sometimes he succeeded. The Myers communicator at Mrs Willett's sittings once said, "I am now going to begin fresh experiments. You might tell Mrs Verrall, when opportunity occurs, that the need for experiment from this side has not been sufficiently grasped on your side."

It would not follow that those who may be planning to influence human minds in order to achieve some particular end are uniformly wishful to give a forecast of the hoped-for result. These forecasts are infrequent and, of course, the opportunity for giving us information beforehand is limited.

Reference might be made to the series of *Cross Correspondences* which were obviously attempts at instructive and cleverly devised experiments. (See *S.P.R. Proceedings* for June, 1911 and several later numbers.)

In *Human Personality*, Vol. 2, p. 275, Myers says, "Experiments, I say, there are; probably experiments of a complexity and difficulty which surpass our imagination; but they are made from the other side of the gulf, by the efforts of spirits who discern pathways and possibilities which for us are impenetrably dark. We should not be going beyond the truth if we described our sensitives as merely the instruments, our researchers as merely the registrars, of a movement which we neither initiated nor can in any degree comprehend."

If Myers found good ground for believing that experiments were planned and carried out by the discarnate, much more can we; for since his day we have had, besides the Cross Correspondence series, Book Tests, and then experiments with *The Times*, in which names and words

were given which would be found in the morrow's issue, although not yet in type at the hour when the forecast was given.

Experimental forecasts indicate an important line of evidence for the continued activity and interest in our doings of those who have preceded us into a more exalted sphere of life.

CLASS F

PURE PRECOGNITION

A few of the forecasts received by me through Mrs Leonard look like pure precognition, *i.e.* veridical cognition of the future obtained by some means other than rational inference. I give as examples the two following.

THE EASTWOOD SISTERS

During a Leonard sitting on December 17th, 1943, while Feda was speaking for my sister Etta, she remarked that a visitor was coming to stay at our house. This struck me as absurdly impossible, for the following reasons. We had but recently resumed occupation after having closed the house for three years. Our two maids, both over sixty, were now exerting themselves to the utmost in cleaning the place from attic to cellar and although the task was far from ended they were both visibly weary and overworked. It was out of the question to impose extra labour on them, such as a visitor would involve. Besides this, my wife was seriously ill, so ill indeed that it was necessary to obtain outside help in nursing her, and a Miss Eastwood came for this purpose each morning. As for myself, household shopping and attendance on my wife left no leisure for entertaining visitors. We were all living under pressure of exacting conditions. And so I regarded this announcement as nonsense.

Yet the visitor actually came and stayed with us five nights!

About midnight on Sunday, the 2nd of January, there was a short air raid over Bromley, where we reside. Two bombs fell near the town centre but did not explode. The Fire Wardens therefore cordoned off adjacent streets and shepherded the residents to a public shelter where they might remain until the bombs should have exploded or been removed.

Among these people were the above-mentioned Miss Eastwood and her two sisters. The former arrived next morning looking tired and overwrought. She informed our maids of the night's experience and of the public shelter in which they had sat, cold and miserable, until daybreak. She also mentioned that they were to make that shelter their home for a probable five nights, and were dismayed at the prospect.

Our housemaid repeated the story to me and then suggested that it would be a kindness to offer the three sisters the use of our spare rooms. Realising that this housemaid would have to shoulder the chief part of all extra work involved, and as the cook said she had no objection, I discussed the matter with my wife and we then invited the three sisters to come. They accepted the invitation and spent the following five nights at our house.

Here are verbatim notes of the forecast given sixteen days before.

Feda: Etta wanted to say that she got a very strong impression—

this may be something to do with Clara—of someone coming back into your house that was connected with it before.

C. D. T. : Very unlikely!

Feda : Very unlikely, perhaps, to your mind, but very likely to hers. She wants you to remember that.

C. D. T. : What makes you think that, Etta?

Feda : She gets a strong feeling of a return of someone.

C. D. T. : I wonder how you get that feeling.

Feda : She says, I can't quite explain it in words that would convey it to you.

C. D. T. : We are not thinking of having anyone and I doubt if anyone is thinking of coming.

Feda : It's not quite an ordinary visitor, but rather quickly, rather suddenly ; don't think I mean today or tomorrow, I'm not quite sure of that. But what I mean is—wait a minute—that when they come they will come without very much notice or—do you see? perhaps no notice. She feels as if they might come, as it would appear, suddenly to you ; and she does feel it is someone who has been linked up with your house. It's like a return of someone, and don't put it out of your mind because you don't think it could possibly happen. It is certainly nothing you have arranged for, nothing at all ; and she just leaves it at that.

Note in the above remarks :

1. " This may be something to do with Clara ". Clara is my wife, and her dressmaker for thirty years has been one of the Eastwood sisters.

2. " Someone who has been linked up with that house. It is like a return of someone." The dressmaker has often visited our house, besides which she spent two of her summer holidays here. Her sister, as previously mentioned, had been coming daily to help.

It will be noticed that Feda said " someone " and also " they "; the latter word was probably used because Feda was not told the sex of the person in question.

3. How perfectly apposite were the phrases used : " a return," " to do with Clara," " someone coming back into your house that was connected with it before," " not quite an ordinary visitor," " rather quickly, rather suddenly," " someone who has been linked up with that house," " nothing you have arranged for ".

All the above are accurate descriptions of what came to pass. It was only after the invitation had been given and accepted that its relevancy to this forecast occurred to me.: for the forecast had in the meantime quite passed from my memory.

Note the chain of events which led to the fulfilment of my sister's forecast. Of these there were five :

1. A German airman flew over Bromley dropping two bombs ; and of all the extensive area of the town it was within a small rectangle of streets which included the Eastwoods' home that they fell.

2. These were delayed-action bombs. Had they exploded on falling it is unlikely that the Eastwood sisters would have quitted their house.

3. Two of these sisters had been intimately connected with my wife.

4. But for the fact that one of them was now in daily attendance at our house we should have remained unaware of their plight.

5. Had not the housemaid suggested our offering hospitality it would not have occurred to me to invite them.

Our guests remained with us for five nights. And so it was that various "chance happenings" combined to bring about the exact fulfilment of the prediction given at my sitting sixteen days before!

Was the German bomber impressed, influenced (term it how we may), to drop his bombs at the particular spot and moment which would bring about the event as foreseen? We do not know!

I am confident that this fulfilment was no chance coincidence, but further than this I cannot go. It will have been noticed that Etta "gets a strong feeling", and when I express a wish to know more, she says, "I can't explain it in words that would convey it to you."

The source of feeling is often elusive even with ourselves, especially with faint impressions that so-and-so is likely to happen; and it might well be that Etta, while aware of the feeling, was far from clear as to its origin. On the other hand she might have known something of the laws of cause and effect, as they operate on realms above earth, but despaired of her ability to convey to me anything that I should find intelligible.

And so I have placed this Eastwood forecast here where it may serve to illustrate that class of precognitions which, up to the present, has defied the human intellect to explain it. One may make guesses but guessing introduces factors about which we make other guesses. To "explain" the unknown by other unknowns would satisfy neither the reader nor me.

THE TURN OF THE TIDE AT EL ALAMEIN

In the spring of 1941 the British Army of Occupation in Libya was chivalrously depleted to provide an Expeditionary Force for the succour of the Greeks. The Germans seized the chance of sending over the powerful force with which Rommel hoped to invade Egypt. By November 1941 Rommel was raiding the Egyptian frontier. Then we had some successes and forced him back so resolutely that by December 6th our patrols were raiding 150 miles into Tripoli. Shortly after this we broke Rommel's front and captured Benghazi.

Then came our reverses and before the end of January 1942 Rommel had retaken Benghazi.

The following June we had to retire to the Egyptian frontier, but left a considerable garrison to hold Tobruk. In June we lost Tobruk and some 25,000 of its garrison. Then Rommel captured Mersa Matruh and we lost another 6,000 men. By June 30th the Germans were within 90 miles of Alexandria!

That was our worst plight and only relieved by the assurance that reinforcements were on their way round the Cape of Good Hope.

On July 1st, fighting was resumed around El Alamein. By the 11th we had taken 2,000 prisoners and another 4,000 by the 19th. When General Auchinleck relinquished the command he was able to announce that in the previous two months we had captured 10,000 of the enemy. It was on August 18th, 1942 Lieut-General Montgomery was given command of the 8th Army, and on October 23rd began an all-out offensive.

It was successful. By November 3rd Rommel's forces were in disorderly retreat. Two weeks later the Germans were driven out of Cyrenaica and our church bells were ringing for the victory. That was the first stage in the German retreat, which continued intermittently until the only Germans left alive in North Africa were in our prisoners' cages.

This decisive victory, a turning point of the war, was gained at the end of October and the first days of November. According to an official account, announced by the B.B.C., the actual turn of the tide began on *October 30th*.

At midsummer I came down from Yorkshire to take sittings with Mrs Leonard. The full text of my records are given later; for the moment I limit them to this summary:

June 30th 1942. Your father feels sure that something very, very important comes in October. "He keeps writing 28th, and 29th, October, and turning something over then."

This crucial date was also given by another communicator. At a Leonard sitting on August 26th 1942, the Rev. A. F. Webling was told by his communicator son:

"I've got a date in my mind. As I told you, I don't always know these things about the future . . . but in my mind recently a date keeps coming up. I ought to say two dates next each other; something about October 28th and 29th; something to do with the war. And I feel it is a turning point of a very, very vital kind, very outstanding. I seldom get anything like that. It is as if a little door opens and something pops out, almost as if it were thrown out, saying, 'Take that.' This date came and my own mind has to interpret it. And I interpret it as having a very grave bearing on the war which will prove to our advantage. *Father, I felt relief.* (This was spoken in the direct voice.) I would like you to underline that."

Thus we find that the date given by my father sixteen weeks before the event was repeated by another communicator a clear nine weeks before the striking fulfilment on October 30th.

The date thus twice forecast proved to be the turning-point of the war in North Africa, the start of that invincible progress of our Eighth Army which brought our troops to Tripoli and Tunis, then through Sicily and far up the Italian Peninsula, and finally by way of Normandy, Brussels and the Rhine to the shores of the Baltic. And with never a setback or retreat!

On November 12th, 1942, General Montgomery's Order of the Day said: "We have completely smashed the German and Italian Armies." He reported 30,000 prisoners already taken. That battle was the turning point of our war in N. Africa; it had started on October 23rd, and by November 3rd the enemy had begun a disorderly retreat. The actual turn of the tide of battle was October 30th, when Rommel began his flight from El Alamein. (This was officially reported by the B.B.C.) Our actual and final breakthrough was on November 1st.

The *Daily Telegraph's* review of events, given that December, said, "Autumn witnessed the passing of the general strategic initiative from the hands of the Axis to those of the United Nations. . . . It was not,

however, till the end of October that the United Nations may be said to have begun demonstrably to capture the initiative."

Thus was fulfilled the forecast that something important would mark a turning point at the end of October.

How confidently the Germans had expected to capture Alexandria is shown by a newsreel composed of shots taken by German cameramen in Libya. This newsreel was captured in North Africa and is dated October 26th, 1941. In it the commentator says, "Rommel's invincible troops are about to start this offensive," and the impression is given that the end of British offensive is but a matter of days. Little was it expected that by November 4th our Eighth Army would have won the smashing victory of El Alamein. This film was being shown in North Africa on November 8th, 1942, when the Allies landed there. (From a correspondent of the *Daily Telegraph*.)

On receiving this forecast I posted a copy to Mr Saltmarsh who acknowledged its receipt and later wrote me about its fulfilment which he had discussed with a friend. When Mr Webling sent me a copy of his communicator's repetition of this same forecast I sent this also to be kept with mine for future reference. On Mr Saltmarsh's death these were deposited with the S.P.R. Thus there are witnesses that at a date four months before the event—and again two months before it—this crucial date of the end of October had been given.

Was any such forecast in the mind of our highest military circles? It was known at the end of June that substantial reinforcements were on their way, but the ships were taking the long route round the Cape. Had their date of arrival been approximately known, also the period that must elapse before those reinforcements could reach the battle front, it would have been a risky guess to give October 28th and 29th as the date on which those reinforcements would turn the scales in our favour. Yet the communicators gave the precise date, the only modification made by my father in June was that the important event might happen earlier. Even if we suppose that some mind, or minds, were holding this date as the probable turning-point, how are we to explain the thought being picked up and made to emerge at Mrs Leonard's trance sitting? Merely to suggest "telepathy" is to evade the question; for we have no conception of the way by which thoughts travel from mind to mind, or are possibly shared by minds, apart from our everyday methods of exchanging ideas by word, writing, or arbitrary signs. Nor is the telepathic theory applicable to the forecast given above, *The Eastwood Sisters*.

The key to the problem of pure precognition might possibly be either, (a) some higher dimension of Time, or (b) perception by intelligences on grades of existence higher than that of our communicators and whose abilities enable them to make use of causal laws unguessed by mortal man. These alternatives are not mutually exclusive and both might come into play. But on such matters we are guessing in the dark.

The result of Dr Soal's experiments with Mr B. Shackleton (*S.P.R. Proceedings* for December 1943) confirms the reality of pure precognition.

We may again quote what Myers says in *Human Personality*, p. 265: "I suspect that it is not by wider purview, wiser inference alone, that finite minds, in the body or out of it, have attained to knowledge of what

yet must be. I imagine that the Continuity of the Universe is complete ; and that therefore the hierarchy of intelligences between our minds and the World-Soul is infinite ; and that somewhere in that ascent a point is reached where our conception of time loses its accustomed meaning."

Page 390 : " Nor can we guess how high may be the communicating intelligence, how far-reaching its prefiguration of what for us has yet to be. We are led thus to our last, our boldest conjecture . . . the possibility of a knowledge which comes to man from no individual, or at least from no human source : which is no longer inference but the reflection of Reality itself."

In some instances it is difficult to decide whether the forecast should be classed as experimental or a pure precognition. Consider the following two. First one from Mrs A. W. Verrall's paper on her "Automatic Writings" (*S.P.R. Proceedings* for October 1906, p. 331). In December 1901 she wrote of a man reading by candle-light a book *Marmontel* ; it was borrowed, and one of two volumes. The following was given as a clue to this, " Passy may help, Souvenirs de Passy or Fleury."

On March 1st, 1902, a Mr Marsh came on a visit and mentioned that he had been reading *Marmontel*. On being asked to say under what circumstances he had read this book, his replies bore out the forecast. On February 21st he had read the first volume, which contained an account of the finding at Passy of a panel connected with the story in which Fleury played an important part.

There were a few inaccuracies, but so close an agreement between the script and the fact as to preclude chance coincidence. The account is impressive and should be studied in full.

As written it looked like a reminiscence and not a forecast of the future, the script of December giving the incident as in the past : whereas it did not actually occur until the following February. Was this part of the test blurred during reception? It looks more like an experiment than pure precognition ; for the words introducing it were, " Nothing too mean, the trivial helps, gives confidence. Hence this."

We cannot easily imagine the means by which a communicator might have contrived to bring about a fulfilment of the forecast, but we may assume that he would rely upon laws psychological and causal at present unknown to us.

* The second case is given by Myers in *S.P.R. Proceedings* for December 1899, p. 487. It has often been quoted in abbreviated form, but should be read in full.

Mrs Atlay, wife of the then Bishop of Hereford, dreamed that she read prayers in the Palace Hall during her husband's absence ; that prayers being ended she opened the dining room door and saw between table and sideboard a large pig!

When morning came Mrs Atlay recounted her dream to the children and their governess and presently read family prayers, the Bishop being away. She then opened the dining room door and was astonished to see an enormous pig standing in the spot where she had seen it in her dream.

Questions by Myers brought answers showing that the pig was not in the Palace at the time of the dream, but safely in its sty. It had entered the room while gardeners cleaned the sty and prayers were in progress.

Servants coming for prayers had left all doors open. The pig had wandered some distance to enter the house.

Is this a case of the purely precognitive faculty, which possibly lies dormant in us all? Or could it have been the result of an experiment by some discarnate humorist, who either saw his opportunity in the unfastened sty and open doors of the Palace, or who had influenced those concerned to give the pig its chance, and then, trying his powers on the animal, had guided its wanderings?

Myers wrote (see *Human Personality*, p. 390): "In many of our cases there is absolutely no clue to the source of precognitions; and we may ascribe all these, if we will, to the Subliminal Self without extraneous aid. Yet, on the other hand, there are many cases where the agency of unembodied spirits is asserted, and with evidence that cannot be ignored."

CONCLUSION

Reviewing our examples, we note that those least difficult to understand related to human plans already existing in some incarnate mind. It would seem that our purposes can sometimes be observed by friends in the Beyond and made the foundation for a statement that such-and-such a thing will come to pass. And it usually happens! But if, meanwhile, we change our plan, or its execution should be delayed, the forecast becomes to that extent inaccurate.

Secondly, we found a type of forecast which seemed to depend on the ability of agents in the Beyond to use, and perhaps modify, our human plans, adapting them to plans of their own.

Thirdly, we saw that human co-operation is occasionally asked for in psychic sittings which provide opportunity for the request.

A fourth class, somewhat similar to the second, differs from it in that the original plan, which forms the groundwork, was not man's but one devised in the Beyond.

We thus conclude that in such forecasts of the future we have a body of evidence for the existence of intelligent action in minds other than those of earth.

It has been suggested that Time is an illusion, or that there is a different time-scale in other-world conditions, so that events yet to happen here have already happened there. Doubtless this is attractive to students of relativity, and even to the man-in-the-street who knows that what he sees when looking at the star Sirius is that which happened there some eight years ago, and that what takes place on Sirius today cannot be observed from earth until another eight years have elapsed. Yet such considerations do not lead me to feel satisfied that, if I see a car accident this day week opposite my house, it has already happened in ethereal realms!

Hence I have suggested explanations which do not run counter to life as we know it, and which agree with what we are told of activities in the life Beyond. It is, in brief, that *higher minds can infer, from what they observe, combined with what they themselves plan to do, that such and such an event will presently happen.* Compare this with the planning of enterprising business men, of Cabinet Ministers, of Generals in wartime.

What these do in earthly life is done, I suggest, by their predecessors in the Great Beyond.

THERE REMAINS A MYSTERIOUS ASPECT OF PRECOGNITION

When we have sorted out collections of forecasts and glimpsed possible, or even probable, explanations of the simpler types, there remain some for which any explanation so far suggested seems highly improbable. What, for instance, are we to think of the two cases, *Eastwood Sisters* and *Turn of the Tide at El Alamein*? or of the *Gordon Davis Case*? In the latter there was minutely and accurately described to Dr S. G. Soal at his sittings, a house and some conspicuous articles of its furniture. Yet the future occupant of that house did not go to reside there until *eleven months later* and it was *his* occupation and *his* furniture which had been described in the forecast. At the date of Dr Soal's sitting other people were living in that house and some of the furniture described had not yet come into the possession of its future occupant! (A full account of this noteworthy case is given in the *S.P.R. Proceedings* for December 1925, pp. 569-589.)

On my briefly recounting this Gordon Davis Case to one of my communicators he said, "With regard to the apparent knowledge of facts as they would be at a future time—so it seems—I have spoken to you of what we term *The Eternal Now*. I myself have often thought that your next week is sometimes our today. I have compared notes with others and find that we agree. I am frequently uncertain whether a thing happened to you yesterday, or whether it is to happen tomorrow.

"In the case you mention . . . the house and its furniture may have been seen as a picture of what would presently be. Visions of the future have undoubtedly been seen and described with extraordinary detail. Another possibility is that the power of thought happened to be focussed by conscious or unconscious desire; the man may have wished for a house of that kind. The power of thought is indeed strong; it may have raised him to a state in which he could visualise and describe it. There is such a thing as projection of vision, or, let us say, a stray beam penetrates the window or wall of time. It would not be well for it to operate often, but it is permitted occasionally to show that it can be done."

That it is sometimes done seems evident from the facts of precognitive clairvoyance.

Had our communicators said that they obtained information about a future event from people on higher spheres than their own, that would have but removed the problem a step further away and left it still unsolved.

What they do say, however, is that they themselves can sometimes become aware of the future event without knowing how this awareness comes to them. This can be paralleled with our own experience.

For we are constantly aware of facts without being able to understand *how* the awareness arises in consciousness. I am not alluding to rare and dramatic occasions, called supernormal. I am thinking of the thousands of instances which occur daily: for when we see, hear, feel with hands, taste or smell, the same thing happens! We are mostly oblivious to the wonder of this; for having been accustomed to it from childhood we fail

to notice the inexplicable in that which inevitably, regularly and constantly happens.

Our sense organs, eye, ear, etc., serve to bring nerve impulses to the brain. That is well understood; for the nerves can be dissected and their rate of impulse-passage measured. But why should impulses which reach the brain produce in us an awareness of what takes place around us? We know that they do this, but we are unaware *how*. Between brain and personal consciousness there is a mysterious process which has not, so far, been grasped by man's efforts to understand it.

And so, like our communicators, we know without knowing *how* we know.

In foretelling a future event, communicators sometimes remark that they "feel strongly" that it will happen—for example, the *Eastwood Forecast*, and the reference to property and Ramsgate in the *Garage Proprietor* case. Such foretellings are a manifestation of the basic fact of *awareness*, and only strike us as strange because they are *less common* than other forms of it which occur with us in daily consciousness. While communicators occasionally become aware of events in the near future, we are continually becoming aware of things in the near vicinity, and this awareness (via the senses) is a mystery too.

To those who believe that life beyond death affords unlimited scope for progressive development, it is reasonable to think that some at least of those who passed on thousands of years ago will have attained knowledge and powers of mind far beyond imagination to conceive. On earth there are yet remote and backward tribes whose members, not having conversed with travellers and explorers, would be completely unable to realise the methods by which some of our everyday actions are accomplished. And, though the learner might be eager and his teachers expert, it would be impossible to make him understand how we travel by train, talk by telephone, reproduce by gramophone, or hear and see by radio, unless and until a number of mechanical and electrical operations had first been made clear to him. To a man whose most lethal weapon was the poisoned dart, the construction and action of atomic bombs would be inconceivable.

Our knowledge of these things has come through the labours and inventiveness of generations. Each stage gained made further stages possible. Some events were more epoch-making than others; the production and use of fire, of explosives, of steam and electricity, marked epochs in human progress; as also in the mental progress of mankind did the alphabet, numerals and printing.

In my many years of intercourse with friends in the Beyond it has become abundantly clear that they have not remained stationary in mental power, but that activity of thought and acquisition of knowledge have been accelerated. When one considers the change in outlook and power of apprehension which the few years between adolescence and advanced maturity have brought us, it can be better imagined what progress is being enjoyed by those who passed centuries ago and whose activities are not checked by the need of spending one-third of their time in sleep. May we not liken them to the travellers and explorers who know so much more than they can explain to remote and backward tribesmen in whose position, relative to the former, we find ourselves? Until we have grasped

certain elusive truths, we are precluded from grasping others yet more difficult. Among the latter may be the nature of time.

Consider the implications of the following conversation which followed my reporting the success of the *Eastwood Sisters* forecast and for which I invited explanation :

Feda : Your father says that Etta, owing to her deep interest in matters psychical when on earth, has more ability than many in estimating, from what she feels or knows, what will come to pass.

C. D. T. : But surely it is impossible to estimate without some facts on which to build? In this case there was no plan in anyone's mind.

Feda : He doesn't know how to explain through Feda what he means and would wish to say. But he thinks people like Etta, who develop their psychic gifts before and after passing, can to some extent make a better use of their understanding about *Time*. When she gave you the prediction there was apparently no foundation for it.

C. D. T. : None whatever.

Feda : Look, he is going like this ; Etta—a line there *A* and one there *B*. She anticipated *B*, although she was at the point *A*.

C. D. T. : Yes, that is clear.

Feda : On your plane of perception, unless in some exceptionally psychic state, you would have to stay at your own point in time. Etta has a better, shall I say, observation post than yours.

C. D. T. : Admitted ; but she cannot see what does not exist!

Feda : But it does exist! And that is just what I cannot explain.

C. D. T. : Then your statement is that there was a sense in which the event had already taken place and Etta was able to view its happening, although in earthly time—

Feda : In earthly time it had not materialised. It had not manifested itself in your conditions, in your dimension.

Our mental powers have been evolved in a struggle for physical needs and seem at present incapable of grasping adequately such facts as endless space, time without beginning or termination, or even the *modus operandi* of our memory and perception. It may be that an understanding of precognition will be less difficult than the foregoing. Yet it is sufficiently difficult to baffle our present mental powers.

Man is able to see for a certain distance around him ; optical instruments can give him more far-reaching views. But the deepest plumbing into space by the most efficient of his instruments fails to find any indication of finality ; there is yet more to be seen beyond the furthest limits of vision. And so it is with mental probings also ; for man finds himself surrounded by a mental haze into which he probes in vain. It is true that he sees the immediate concrete earth, also the social life around him. But what a restricted gaze! If he would view the life and conditions of his great-grandparent's time he must depend on a few old letters, certain books and historical records which convey to him little of the vivid life which those departed relatives knew. Still more is he fogged when he desires to see how the successive strata of the earth beneath his feet were laid, or the actual condition of the earth's central core. Imagination, aided by scraps of inference, is his only probe in this, as in many other

directions also. In whichever direction he looks this impenetrable haze baffles him. The majority of his fellows therefore elect to take life as it comes, assessing things at their surface value and leaving to scientists and philosophers the inferential delving into that which does not seem to immediately concern either our necessities or our pleasure.

What wonder, then, that they accept Time in like manner and have no suspicion of the mystery at which instances of precognition hint? Men with spiritual experience rest satisfied that, as they step firmly forward in the path of duty, a further length of that path will be made clear, step by step, by the Providence which has shaped the pathway hitherto. For to such men the Guided Life is a most real fact.

In addition to the collected cases of Myers, Richet and Osty, instances of foreknowledge and prediction, gathered from *S.P.R. Proceedings* and elsewhere, will be found in the following more recent books :

Some Cases of Prediction. Dame Edith Lyttelton.

Foreknowledge. H. F. Saltmarsh.

The Personality of Man. G. N. M. Tyrrell.

OBITUARY

LORD RAYLEIGH, F.R.S.

ROBERT JOHN STRUTT, LORD RAYLEIGH, was a member of the family in which interest in psychical research dated back beyond the formation of the Society for Psychical Research, and was closely associated with distinction in physical science. His father was one of the group of Cambridge scientists with whom Sidgwick, Gurney and Myers were closely allied, and his mother was a Miss Balfour and shared to the full the manifold intellectual interests characteristic of that family. Lord Rayleigh joined the Society in 1925 and was President for the years 1937-1938. He was a man of very many activities, not only in the field of pure science but in the application of scientific methods to the management of large agricultural estates.

Of his work in physics Dr A. J. C. Wilson of University College, Cardiff, writes as follows :

LORD RAYLEIGH AS A PHYSICIST

“ Among the younger generation of scientists Lord Rayleigh’s achievement as a physicist hardly receives the recognition it deserves. There are probably two complementary reasons for this ; his reputation is overshadowed by that of his great father, and his early election to the Royal Society and similar honours are attributed to his inherited position rather than to his ability. In truth however his own work in experimental physics and his long record of public service amply justify the many honours he received.

His early interest was radioactivity, and he published numerous papers in this field, typical subjects being Distribution of Radium in the Earth’s Crust, Helium and Argon in Common Rocks, Direct Estimate of the Minimum Age of Thorianite, and Accumulation of Helium in Geological Time. His work on the distribution of helium in various rocks led to an estimate of the “ age ” of the earth, that is, of the time during which the earth has existed as a solid body. Among his other contributions to the main line of advance of physics were studies of line spectra and of active nitrogen. The work on line spectra was carried out in collaboration with the late Professor A. Fowler, and was important in the latter’s interpretation of line spectra and in the development of the quantum theory.

Lord Rayleigh’s independent position and private laboratory at Terling made it possible for him to explore some of the fascinating by-ways of science, closed to the industrial physicist, and fast closing to the academic physicist in a world of planning. Among these may be classed his work on the colours of beetles’ wings and on the ultimate shape of pebbles. His interest in minerals, early shown in his studies of radioactivity, was maintained to the end of his life, one of his last papers being on an attempt to imitate the structure of the type of stony meteorites called pallasites. Besides his strictly scientific work he published biographies of his father and Sir J. J. Thomson.

It would be improper not to mention Lord Rayleigh’s activities as Chairman of the Civil Research Committee on Radium Requirements,

Chairman of the Governing Body, Imperial College of Science, President of the British Association, and chairman or member of many other boards and committees, though details hardly fall within the scope of this note. It is in this field of public service to science that his loss will be most widely felt."

His other activities afforded him little leisure to devote to active psychical research, but he maintained a very keen interest in the Society, which he showed both by contributing papers to the *Proceedings* and by his share in the administrative work of the Society, and shortly before his death by a very generous donation. Besides his Presidential Address he described in Vol. XLI of *Proceedings* "A Method of Silhouette Photography by Infra-red Rays for use in Mediumistic Investigation", as to which Dr A. J. B. Robertson writes as follows :

"Rayleigh in 1932 described a method of silhouette photography by infra-red rays for use in the investigations of physical mediums. At that time the available infra-red plates were not of sufficient sensitivity to enable a short period photograph to be taken without the introduction of a certain amount of visible light. Rayleigh pointed out that the difficulty could be overcome by photographing only a silhouette of the structures which might be produced, such as cheesecloth, or the psychical substance found by E. and M. Osty to be apparently produced by the medium R. Schneider and to be capable of absorption of infra-red rays. With Rayleigh's method practically the whole of the infra-red beam can be caused to enter the camera and contribute to the image formation. The method, however, gives only the outlines of a uniformly opaque object. Rayleigh used a double convex field lens of large aperture to focus the radiation on the camera lens, which was focussed on the region in front of the field lens or on the field lens. Obstructions of the infra-red beam could be detected with a photo-electric cell.

Rayleigh's apparatus was used by Lord Charles Hope and Mr C. V. C. Herbert in the investigation of R. Schneider. Although some absorption of the radiation was observed nothing definite could be seen on the plates ; this may have been due to the supposed psychic substance absorbing only rays of a wavelength too long to be registered on the photographic plate. Rayleigh, however, pointed out that his method was not very suitable for the detailed study of ray absorption, the photo-electric cell being liable to accidental disturbance."

In another paper he recorded some most interesting reminiscences of our first President, Henry Sidgwick, who was his uncle by marriage.

It happened that during his presidency the Society's claim for exemption from income tax came before the Special Commissioners. At the hearing Lord Rayleigh made a most powerful declaration as to the scientific status of the Society and the importance of its researches, which produced a profound impression and placed the issue beyond any doubt.

On the outbreak of war in 1939, when there was great anxiety as to the safe preservation of the Society's important archives and records against any risk of destruction through enemy action, Lord Rayleigh very kindly consented to store the documents (about a dozen large packing cases) at his country house, Terling Place, Essex, where they remained in safety "for the duration".

DR N. M. BUTLER

THE death of Nicholas Murray Butler, President of Columbia University, carries our thoughts back to the very beginnings of psychical research. For he, in collaboration with several other American scholars led by William James, helped in the organisation of the first American Society for Psychical Research, and as a corresponding member of the S.P.R. retained his affiliation with these lines of investigation until his death.

Trained as a philosopher and also as a lawyer, Dr Butler was early drawn into a life of administrative activities. It was he who, as Chairman of the Department of Philosophy at Columbia University, brought experimental psychology to that institution in the person of James McKeen Cattell ; he who, a few years later, grasped the vision of a central teachers' training institution and gave Teachers' College, Columbia University, its primary impetus ; he who, as editor of an educational journal, crossed swords with the reactionaries at the turn of the century. Columbia University grew at an accelerated tempo during the opening decades of this century, largely as a result of his grasp of the ways in which its undergraduate and graduate schools might integrate existing local educational institutions and might serve the needs of a metropolitan community. He was always active in politics and deeply concerned with problems of international relations, upon which he constantly wrote and spoke. It was partly through him that funds left by Andrew Carnegie in the interest of world peace were expended for the benefit of education in international affairs. His knowledge of the legal and political history of Great Britain and the United States was drawn upon in the deliberations which followed World War I, and his advice continued to receive deep deference during the succeeding years. He was, in short, among the band of distinguished scholars who, despite their key position in public affairs, have not held themselves aloof from the still inadequately recognised domain of psychical research.

GARDNER MURPHY

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH

PART 176

OBITUARY

THE HON. MRS ALFRED LYTTELTON, G.B.E.

IN the many spheres of public life in which she was interested—politics, social reform, the League of Nations, the English-speaking Union, the project for a National Theatre—Dame Edith Lyttelton found opportunities for the exercise of exceptional gifts of sympathy, practical good sense and a keen, but kindly judgment of persons and affairs. The same qualities made her a most valuable member of the S.P.R., which she joined in 1902, and an influential member of the Council, to which she was appointed in 1928.

At the beginning of her Presidential Address in 1933 she said :

“ I have no claim or right to be in this position. I have had no scientific training. I am neither a psychologist nor a metaphysician nor a philosopher ”.

Theory was not indeed her strong point, and to that extent we may agree with her modest disclaimer. But sympathetic insight into human problems, wide reading and, above all, long exercise of psychic faculties, taken together, constitute no mean qualification for high office in our Society.

Mrs Lyttelton began producing “ scripts ” in 1913, shortly after the death of her husband, Alfred Lyttelton, her “ scripts ” being mostly records of inspirational speech. They were first made known to the Society by Mr Piddington’s paper in *Proceedings* Vol. XXIX, in which she is called “ Mrs King ”. The real name was, however, made public in Mr Piddington’s paper in *Proceedings* Vol. XXXIII (pp. 438–605), in which he pointed out that her scripts were closely connected by verbal links, which he explained in detail, with the scripts of other members of “ the S.P.R. group of automatists ” which she had not seen. If all these scripts were put together in accordance with the links between them, it was found that there were persistent predictions of the War of 1914 dating back to a time well before any general apprehension had arisen of a serious risk of war between Britain and Germany. It would not have been surprising if Mrs Lyttelton, with her knowledge of public affairs, had in 1913 consciously recognised the risk of war as appreciable. The interesting point, psychologically, is that she did not at the time interpret her scripts as foretelling war, though to any other person that would have seemed the obvious meaning, and, psychically, that her scripts dovetailed so remarkably with the scripts of the other automatists.

This aspect of the case did not attract so much attention as a single incident in her scripts, the apparent prediction, made in two scripts of February and May 1914, of the sinking of the *Lusitania* in May 1915, an event the effect of which on international relations has been exceedingly far-reaching. The prediction was not exactly fulfilled in all details, and the possibility of its having been a fluke cannot be disregarded. Before, however, adopting that view, the reader would do well to consider not only Mr Piddington's comments (*Proceedings* Vol. XXXIII, pp. 499, 500, 599-603), but also what Mrs Richmond says below as to some other, unpublished, predictions in Mrs Lyttelton's scripts.

Not unnaturally the problem of precognition was constantly in her mind. This was the subject on which she spoke in the series of B.B.C. talks in 1934. Out of a large number of cases then reported to her by listeners she made an interesting selection published as *Some Cases of Prediction* (1938).

Myers's description of the subliminal as part rubbish-heap and part treasure-house is familiar. Between the wars popular interest in psychological developments was concentrated on the former aspect. Mrs Lyttelton's book *Our Superconscious Mind* (1931) was a useful corrective of this one-sided view. Even more persuasive, however, was her own life-work in which the distinguished conduct of public affairs was harmoniously combined with the exercise of faculties that uninstructed opinion often regards as queer and unworthy of serious study.

W. H. S.

Mrs Richmond, who came to know Mrs Lyttelton well through a common interest in psychical research, writes as follows :

The national, social and literary activities of Mrs Lyttelton were enumerated in *The Times* and other papers when she died on September the 1st, and they all put her interest in Psychical Research last on the list. Still, it was mentioned and this is some advance.

Really Psychical Research and what she called the life of the soul came first and foremost in her mind, and all her other activities flowed from her great desire to help people towards a different outlook in the light of a real belief in Eternity. When she was young, this interest was submerged by the more ordinary things of life, in which she was always intensely interested, and during the time of her great social success her psychic gifts were manifested in her insight into character and her extraordinary sympathy for those she felt akin to, and also in her writings.

She wrote several plays in which Mrs Patrick Campbell, a great friend of hers, acted and she did not hesitate to deal with subjects not then very popular with playwrights, such as sweated labour, which is the theme of *The Thumbscrew* and *St Ursula*. This last shows more signs of her interest in dreams and communications of a transcendental order. It was the death of her infant son that first made her fully conscious of a conflict in herself, about what she really believed. The religion in which she had been brought up failed to help her, and a psychological struggle ensued that only sensitive people suffer from.

But this conflict prepared her for the blow of her husband's death in

1913 and it was then that she started the "automatic writing" which, in time, showed such precognitive qualities.

The scripts that could be understood at the time are published in *Proceedings* Vol. XXXIII, March 1923, by J. G. Piddington. But several very interesting points in the scripts were quite incomprehensible at that time. For instance on May 24th 1915 she wrote, "The hand stretched out to stay Berchtesgaden", and on Jan. 31st 1915, four months before the above, come these words,

"The nemesis of Fate nearer and nearer, no respite now, nearer much than you think and once it begins there is no stay—no one knows . . . The Munich bond remember that. You will see strange things". Even when victory was won in 1918 no sense could be made of these two scripts; they referred to happenings twenty years later.

It was not till 1922 that I met Mrs Lyttelton. My husband had been doing automatic writing in connection with the S.P.R. group for a few years, but we had no idea who the other writers were.

At that time we needed a country house, and a firm of agents arranged an appointment for me to see Mrs Lyttelton, who had one to let. I can never remember how we got onto the subject of Psychical Research within the first few minutes of that interview, but we did. The house became quite a secondary consideration and our friendship began from that moment. We took the house, and soon started having sittings together in it, when Mrs Lyttelton and her daughter, Lady Craik, invited us, as they often did for weekends.

Sometimes all four of us wrote or spoke in turn. Sometimes, more rarely, Mrs Lyttelton and my husband had a sort of duet, while Lady Craik and I took down what they said. Very often just Mrs Lyttelton and I would sit together and this continued periodically till a short time before she died.

The content of these messages proved extremely helpful and instructive to all of us, and they set up a curious and valuable state of telepathic rapport that seemed, and still seems outside time. It is not possible to describe this, or the various levels that our messages revealed, rapidly changing sometimes from trivial to profound themes, or keeping up a humorous conversation full of insight and good advice, and sometimes strafing us for our lack of persistence in our good resolves.

They were definitely an educative process and an adventure together. The messages for "the S.P.R. Group" were of quite a different tone to the rest, and we hardly ever understood what they meant. But we all felt reassured and encouraged if they were approved of by Mr Piddington. I remember Mrs Lyttelton completely rewrote her book *Our Super-conscious Mind* because Lord Balfour and Mr. Piddington gave her first attempt at it faint praise.

Right up to the last few days of her life she was writing a book on the soul as the link between time and eternity. Her interest in this subject never failed and to those of us who knew her intimately her friendship belongs to the eternal things.

THE STATISTICAL SIGNIFICANCE OF "DISPERSED HITS" IN CARD-GUESSING EXPERIMENTS

BY M. S. BARTLETT

A FEW years ago an informative summary account of card-guessing experiments on telepathy, especially of those carried out by S. G. Soal, was published by C. D. Broad¹; reading this account recently, I found it a very useful introduction to the comprehensive report² by S. G. Soal and K. M. Goldney of their series of experiments in precognitive telepathy. However, as the significant results which emerged mainly arose not with 0 (direct) hits, but with +1 (precognitive) and -1 (postcognitive) hits, and as some of the statistical tests described by Broad were concerned with the significance of *simultaneous* +1 and/or -1, or +1, 0 and -1 hits, it seems advisable to note that these last tests on what might be termed "dispersed hits" are not necessarily valid, and require further examination.

In a test for 0 hits, with 25 cards of 5 types, the mean number of hits obtained by chance is correctly stated as $5N$, where N is the total number of sets of 25 guesses, and the variance (standard deviation squared) as $4N$ (approximately). But in a joint test of 0, +1 and -1 hits, while the mean number of hits is certainly $73N/5$, the variance is not necessarily, even approximately, $73 \times \frac{4N}{25}$, *independently of the guessing pattern of the subject.*

The effect of non-random guessing patterns (in the absence of genuine telepathy) is always one to be watched for. For example, it is known that if an experiment were conducted simultaneously on several percipients, these could not be assumed necessarily to give uncorrelated answers; again, in an earlier article³ in these Proceedings, W. L. Stevens drew attention to the effect of a predilection on the part of the subject to a particular topic on the original analysis made by Whately Carington of a series of drawing experiments. In the present instance I am not aware that the effect (which only arises when more than one type of hit is considered simultaneously) has previously been pointed out, though qualitatively it can be made apparent by considering extreme cases. Thus if I knew that scores were to be judged on +1, 0 and -1 hits simultaneously, and were asked to be a subject, I would deliberately choose, if I wanted to be cunning, a guessing pattern where runs of the same type of card occurred, for then I should be likely to score heavily (on +1, 0 and -1 hits simultaneously) if I scored at all, whereas on an alternating guessing pattern I should be either right on 0 hits and hence wrong on +1 and -1 hits, or if right on +1 and/or -1 hits, wrong on 0 hits, and therefore less likely to make a big score by chance.

The effect does not introduce actual bias, as I should be just as likely to get low scores as high ones, but it alters the variance and hence the appropriate significance test. This difficulty is of course avoided if tests on such simultaneous hits are not used; for example, if a percipient were found from preliminary trials to score mainly on +1 hits, it would be

¹ *Philosophy*, 19 (1944), 261.

² *Proceedings*, Part 167, 21.

³ Pt. 163, 256.

reasonable in a further series of experiments to concentrate on the significance of such +1 hits. But, at least in the case when the *actual* order of the cards is entirely random (for example, where there is no restriction to 5 cards of each of the 5 types in each set of 25), it is not impossible to work out the appropriate variance for the total score on more than one type of hit, appropriate to any observed guessing pattern. The method is given below for reference.

Scoring for -1, 0 and +1 hits.

When a total score receives a contribution from each *guessed* card on -1, 0 and +1 hits with the actual cards, it is easy to see that the same total score is obtained if we count the number of -1, 0 and +1 hits of each *actual* card with the series of guessed cards. Since the actual cards are assumed to occur at random, the variance of the total score is the sum of the variances of the scores from each actual card. Such scoring depends on the pattern of the three relevant guessed cards. These patterns may be grouped as shown in the Table (A, B, C being any three different types out of the five), where the corresponding contributions to the variance are given.

<i>Pattern</i>	<i>Variance</i>
(1) A A A	$\frac{36}{25}$
(2) A A B, A B A	$\frac{16}{25}$
(3) A B C	$\frac{6}{25}$
(1a)* A A	$\frac{16}{25}$
(1b)* A B	$\frac{6}{25}$

* Required for the two end cards in a series.

Examples :

(i) Guessing pattern consisting of 25 cards of one type. This gives two patterns (1a) and twenty-three of (1), so that the variance is

$$\frac{2 \times 16 + 23 \times 36}{25} = \frac{860}{25} = 34.4$$

(This result agrees with a value worked out by Soal and communicated to me in the course of correspondence.)

(ii) Guessing pattern consisting of 5 cards of one type, followed similarly by 5 cards of each other type. This gives two patterns (1a), fifteen of (1) and eight of (2). Hence the variance is

$$\frac{2 \times 16 + 15 \times 36 + 8 \times 16}{25} = \frac{700}{25} = 28.0$$

(iii) Guessing pattern consisting of one card of each type, repeated five times. This gives two patterns (1b), and twenty-three of (3). Hence the variance is

$$\frac{2 \times 6 + 23 \times 6}{25} = 6.0$$

Similar methods could obviously be worked out for other scoring systems, e.g. -1 and $+1$ hits only, or -2 , -1 , 0 , $+1$, $+2$ hits.

Multiply-determined hits.

The above discussion is also relevant to the discussion of what are termed "multiply-determined" guesses, that is, where the actual cards corresponding to $+1$ precognition and -1 postcognition are of the same type (see Appendix B of the report referred to). Unfortunately once we choose to consider the actual cards according to such a classification, we are in effect sorting them out into non-random groups, so that, as in the case where the actual order is restricted to give 5 cards of each type in every set of 25, the relation between the actual cards and the guessed cards becomes rather complicated, for both sets may not be entirely random. However, it is sufficient to note that the sorting of the actual sets into multiply-determined and non-multiply-determined hits *creates a pattern for the actual cards*, so that, *whether or not the guessing pattern is random*, the variance for such hits will be affected. This can be seen by a consideration of a hypothetical set of cards with two types only; it is then impossible not to get a $+1$ or a -1 hit if the guess is not multiply-determined, since if I guess A and this is wrong for the back-hit, it will score for the fore-hit. The methods of the previous section may be used to obtain the appropriate variance (in the absence of genuine cognition), if the guessing pattern is random, working this time on the series of *guessed* cards as the random series and on the pattern of the actual cards according to whether or not they have been classified as providing multiply-determined guesses. We obtain for the variance contribution to the total score of $+1$ and -1 hits from each guess for which $+1$ and -1 hits are possible:

$$\text{Multiply-determined : } \frac{16}{25}$$

$$\text{Not multiply-determined : } \frac{6}{25}$$

As a check, the chance of a multiply-determined guess is $\frac{1}{5}$, and

$$\frac{16}{25} \times \frac{1}{5} + \frac{6}{25} \times \frac{4}{5} = \frac{8}{25},$$

the correct variance for random guesses and random actual cards.

It follows that a simple χ^2 test of deviations from expectation will not be based on the correct variance in this particular case, and hence will not necessarily be valid for the purpose used in Appendix B.

REPLY TO PROFESSOR BARTLETT

BY S. G. SOAL

I SHOULD first point out that Professor Bartlett's main criticism does not apply to the report on Precognitive Telepathy published by Mrs Goldney and myself in 1943. He rightly contends that if (+ 1) (0) and (- 1) guesses are pooled the correct theoretical variance is not given by the binomial formula $73 \times 4N/25$ but depends on the guessing patterns employed by the percipient. But in the main experiments with Shackleton the above method was not used but the (+ 1) scores were estimated separately and found to yield a significant positive deviation which on a conservative estimate gave odds of the order of 10^{35} to 1 against such a deviation being the work of chance. Professor Bartlett, I understand, would not seriously challenge the statistical validity of this result. His criticism however does apply to the method of pooling used in estimating the results of the experiments with Mrs Stewart and Mr Shackleton in 1936 ["Fresh Light on Card-Guessing; some new effects" *Proceedings*, S.P.R. Vol. 46, pp. 152-198]. It remains therefore to ascertain whether or not the significance of these preliminary experiments was over-estimated.

There are in all 112 sets of 25 (2800 trials) of which 80 sets were produced by Mrs Stewart and the remaining 32 by Mr Shackleton. The *observed* standard deviation for the 112 sets is found to be 47.9 as compared with the value

$\sqrt{\frac{73 \times 4 \times 112}{25}} = 36.17$ actually used in estimating the

significance of the pooled (+ 1) (0), (- 1) guesses. We may first note that if we use the observed standard deviation (47.9) instead of 36.17 we still obtain a highly significant result.

We have

Total number of (0, + 1, - 1) trials	= 8176
Expected number of hits	= 1635.2
Actual number of (0, + 1, - 1) hits	= 1900.0
Deviation	= 264.8
<i>Observed</i> standard deviation	= 47.9
Critical Ratio	= 5.52

Making allowance for the fact that this set of 2800 trials was chosen from a total of 128,350 trials by various persons we arrive at the approximation $P = 2.7 \times 10^{-5}$. Even so the 1936 results are seen to very significant. The high value of the observed variance is due to the fact that there is a considerable amount of paranormal cognition and is only to be expected.

A fairer method is to work out the expected variance by means of the very useful scheme worked out by Professor Bartlett. It is a simple matter to count the numbers of guesses of the types AAA, AAB, etc., and to estimate the contributions to the variance arising from the different types. I have done this both for Mrs Stewart and for Mr Shackleton.

The results are given in tables I and II on the next page.

TABLE I

(2000 trials by Mrs Stewart)

Type	A	V _A	E	V _E
AAA	41	59.04	73.6	105.984
ABB, AAB, ABA	818	523.52	883.2	565.248
ABC	981	235.44	883.2	211.968
AA	39	24.96	32.0	20.480
AB	121	29.04	128.0	30.720
<i>Totals</i>	2000	872.00	2000	934.400

Under A is given the actual number of guesses of each of the five categories and under V_A is the corresponding contribution to the theoretical variance. Under E is given the expected number for each category if the subjects' guesses were a random series and under V_E the corresponding variance. The total of the V_E column (934.400) should be $\frac{4}{25} \times 80 \times 73$ which is true.

It is seen that the correct value of the theoretical standard deviation is $\sqrt{872.00} = 29.5$ which is slightly *less* than $\sqrt{934.400} = 30.6$.

Hence we are on the safe side in using the formula $\frac{4}{25} \times 80 \times 73$ in estimating significance of pooled (0, +1, -1) guesses.

An inspection of Table I shows that the difference between these two values is largely accounted for by the unwillingness of the guesser to repeat the same symbol three or more times in succession. This tendency which is to be observed in the majority of subjects generally results in a lowering of the theoretical variance owing to the comparatively high contribution made by the group AAA to the total variance. On the other hand a guesser who deliberately (or otherwise) makes frequent runs of the AAA type will tend to create a variance which is very much higher than $\frac{4}{25} \times N \times 73$.

It is therefore safest to use the method of Professor Bartlett.

TABLE II

(800 trials by B. Shackleton)

Type	A	V _A	E	V _E
AAA	11	15.84	29.44	42.3936
ABB, AAB, ABA	315	201.60	353.28	226.0992
ABC	410	98.40	353.28	84.7872
AA	10	6.40	12.80	8.1920
AB	54	12.96	51.20	12.2280
<i>Totals</i>	800	335.20	800.00	373.7000

We again find in the case of Shackleton that the correct value of the standard deviation = $\sqrt{335.20} = 18.3$ which is less than $\sqrt{373.7} = 19.3$.

Our conclusion is that neither in the case of Mrs Stewart nor in that of Shackleton was there any overestimation of the significance of the results obtained in the 1936 experiments.

Multiple Determination

The problem of the "multiply-determined" guesses is a much thornier one than I had originally supposed. There does not appear to be any simple method that is valid for finding the theoretical variance since the subjects' guesses will never constitute a random series. Professor Bartlett has given the variance in the case where both the guess and the presentation series are random but additional complications will occur owing to the presence of true cognitions.

Taking as a very rough estimate the variance to be $\frac{1.6}{5}N$ where N is the number of guesses for which both ± 1 hits are both possible and using the expectations given on p. 136 *Appendix B (Proceedings Part 167)* under hypothesis (a) I find $X = 2.7$ for the 1936 work and $X = 2.6$ for Shackleton's work with the agent J.A1. Neither of these results is sufficiently striking to permit of much faith in the possibility that there is anything in this business of multiple determination. We must therefore regretfully abandon the conclusions of *Appendix B*, but there seems no cause to doubt the main result of the 1936 experiments.

ADDITIONAL NOTE ON A TEST OF SURVIVAL

BY ROBERT H. THOULESS

THE first cipher passage given on p. 253 of my article on "A Test of Survival" is no longer of any value for the test, the key word having been discovered. The second passage on p. 258 remains as a test of my survival. I propose also to add a third passage which (like the second) is enciphered by a method too complex for breaking.

My first passage was enciphered by the Playfair system. By spending on it his spare time for a fortnight a cipher expert discovered the key-word, which was SURPRISE. I am grateful to him for the trouble he took over the matter. The moral which must be drawn for the purpose of tests of survival is that unbreakability must be ensured by a complex method of encipherment; it is not sufficient that the message should be a short one.

The cipher expert suggested another method of encipherment which he said would be, in practice, unbreakable, and which would also be simpler to construct than the method I employed for passage II. I add, therefore, a third passage enciphered by the method he suggested: BTYRR OOFLH KCDXK FWPCZ KTADR GFHKA HTYXO ALZUP PYPVF AYMMF SDLR UVUB. This is a meaningful passage (not a quotation) which has been enciphered by a method which I will explain, involving two key words. The giving of these two key words will be the proof I hope to give of survival after my bodily death.

The method of encipherment is as follows. The original passage is enciphered by the Playfair system using the first of the key words.¹ A single letter chosen at random is then put at the beginning and end of the enciphered passage and it is enciphered again by the Playfair system using the second key word. The introduction of the additional letter at the beginning and end is simply to throw the letter pairs out of step with one another in the two encipherments.

I will illustrate the method with the passage "Balm of hurt minds". Let us suppose the two key words are "psychical" and "research". The two Playfair letter squares will be:

I	II
P S Y C H	R E S A C
I A L B D	H B D F G
E F G K M	I K L M N
N O Q R T	O P Q T U
U V W X Z	V W X Y Z

The passage is first enciphered by the first letter square:

Original	BA LM OF HU RT MI ND SX
1st encipherment	DL DG VO PZ TN ED TI CV

¹ The method of using the Playfair system can be found in most books on ciphers or in the *Encyclopaedia Britannica* article on "Codes and Ciphers" (vol. V p. 957).

1st encipherment (re-paired)	PD	LD	GV	OP	ZT	NE	DT	IC	VP
2nd encipherment	QB	QL	HZ	PQ	YU	KC	FQ	NR	WO

And, written in blocks of five, the passage becomes : QBQLH ZPQYU
KCFQ NRWO.

The second encipherment requires one modification of the standard Playfair method. Normally, any letter pair containing the same letter twice repeated, is broken up by the interpolation of an X between the two. This method will not do for the second encipherment because : (i) after the interpolation, the pairing of the two encipherments would no longer be out of step, and (ii) decipherment would be made difficult by the absence of any indication of which letter was an added one. The difficulty can be overcome by breaking up any such letter pair for the second encipherment by the interpolation of another double letter, not necessarily "XX". For example, suppose the first encipherment gave the letter pairs : DN RA AL TP. These would be re-paired as .D NR AA L.. Let us now insert a double C between the two As : .D NR AC CA L.. The letter pairs now remain out of step after the interpolation. There is no difficulty in deciphering since it will be apparent that the CC must be dropped out for the second decipherment since no pair that is not interpolated could possibly have the second letter the same as the first.

To sum up. Passage I is now withdrawn from my test of survival since it has proved not to be unbreakable by rational means. Passage II remains as part of the test ; its key is a continuous passage. Passage III is now added to replace passage I. Its key is two words. The method of encipherment of passages II and III have both been explained so that all that is to be communicated is the key in each case. Both passages are practically unbreakable by rational means and either method is recommended for anyone who wants to repeat the test. The method described here is less trouble than the other.

ON THE NEED FOR CAUTION IN ASSESSING MEDIUMISTIC MATERIAL

BY DENYS PARSONS

IN the *Journal* for March–April 1947, (p. 22), a case was contributed by Mrs G. entitled “ Veridical information given by a medium of matters outside the sitter’s knowledge ”.¹ It described part of a sitting with the trance medium, Mrs Bedford, in which a communicator described the circumstances of his death and sent messages.¹

On reading this case, my first reaction was to draft a letter to the Editor arguing that the case was evidentially almost worthless because most of the statements made by the inedium would be found applicable to the circumstances surrounding many a passing. On second thoughts it occurred to me that the unsupported statement of my opinion would be equally worthless ; accordingly I devised an experiment to test it.

First, it must be recalled that Mrs G.’s case was quite inadequately annotated. I wrote to Mrs G. asking for the answers to twenty questions which had been left unanswered by the annotators. From her answers it was clear that the correspondence of the medium’s utterances with the facts was much more exact than had been apparent from the published version. The only incorrect or unrecognised items were names and initials. However, I decided to proceed with the experiment.

I obtained from four ladies, small objects for a normal psychometry experiment with a professional medium (not Mrs Bedford). When the readings were received they were typed out on separate sheets and onto the end of each one was added, without a break, the substance of Mrs Bedford’s trance communication, transcribed practically verbatim from the *Journal* account. The typescripts were then sent to the subjects for annotation. In order to impose as little as possible on the good faith of these ladies who so kindly co-operated, I took care to explain that some fictitious items had been mixed in with the genuine reading as a “ control ”. I did not of course explain that all the “ fictitious ” items were contained in a long section at the end of the reading.

It was necessary to guard against bias in the selection of subjects. If I had chosen four ladies myself, it might be said that I had selected those whom I considered might have histories similar to that of Mrs G.’s friend. But Mrs G., though not a Spiritualist, has regular sittings with mediums. It seemed reasonable to select subjects who might also be accustomed to do so. Miss Mercy Phillimore, Secretary of the London Spiritualist Alliance, was kind enough to approach four ladies on my behalf. The only stipulation I made was that they should be over forty years of age. Miss Phillimore was unaware of the nature of the experiment.

¹ The case was also published in *Light*, April, 1947. Mrs G. has kindly shown me her notes of the whole sitting which was about twice the length of the published excerpt. The unpublished portion contained much material applicable to Mrs. G., though, in my opinion, its evidential value is lessened by the fact that it was not proxy material, as was the published section, and that it was not a first sitting. However the question whether or not the unpublished part of the sitting was veridical is irrelevant to the present investigation.

The Results. The results gave confirmation of my forecast, the accuracy of which surprised me. The four ladies are designated Miss A., Mrs Z., Mrs C. and Miss D. The readings of Mrs C. and Miss D. were poor as a whole and completely negative for the section relevant to this experiment. The readings of Miss A. and Mrs Z. were poor except for the spurious added passage which elicited the most striking annotations. These are printed on pages 346-351 in parallel columns for comparison.

Miss A.'s annotations, with the exception of items 9 and 16, fit perfectly.¹ In one respect the fit is even better than the original; Mrs G.'s friend could not recognise item 17 which gave the names Arthur, Charles, and Harold, and three initials. The name Arthur is particularly appropriate to Miss A., and so are two of the initials. The correspondence in item 15 concerning the numbers 4 and 2, is very weak, but in Mrs G.'s case it is little better, as the digits have to be reversed to make sense. The name "Jack" in item 15, I learnt afterwards, was a pseudonym, so Miss A.'s annotation here is irrelevant, but helps to show that almost any common name can be fitted in somewhere. "Jack's" real name, though, an equally common one, had no associations for her in this context. Mrs Bedford gave one additional fact to Mrs. G. about "Jack" which could not be published.

In the *Journal* for December 1947 Mrs G. contributed another instalment to the case, obtained through her own automatic writing: "No need for more tests, but *keys* is one. Remind her of keys to do with holiday." *This incident was added to the typescripts and was recognised as applicable by Miss A.* (item 18).

Mrs. Z. knew two families to whom many of the statements could be applied, some to one and some to the other. The correspondence is much less good, and there seemed little point in asking Mrs Z. to re-annotate the reading for the two families separately.

¹ I was concerned lest Miss A. should be upset when she heard that this section of the reading was fictitious. However, she was gracious enough to write: "I quite understand that it was a planned experiment, and my mother and I are not at all upset to know how it was worked."

Mrs. Bedford's trance statement to Mrs G. - *Comments of Mrs G. and her friend Mrs B.*

1. There is another person you saw before he passed over; oval face, eyes sunken in, high forehead; you saw him in bed.

A friend of mine—a man aged 69 died at the house on 9 Aug. 1947. I had been nursing him. The description is applicable. (Mrs B.)

2. He passed over with a complication in his mind about material possessions, but he says: "Thank God, I put everything all right."

He was worried about material possessions. He had put everything right in his will which he made at the last moment. (Mrs G.)

3. He was slim.

He was stout, but became very thin during the last year of his life.

He had another disease as well as the one he died of. You felt very sorry for him.

He died of heart disease but a growth was suspected as well. I felt very sorry for him. (Mrs G.)

4. He speaks of a lady on this earth. Tell her he is not dead. She is not to worry about the changes she had in mind. He realises expenses are great, but she should not look too far ahead in planning.

All this is applicable.

5. He speaks of her looking through his papers.

I went through his papers and destroyed some of his private letters.

6. He thanks her for what she put in his coffin.

I put some of his favourite flowers into his coffin.

Comments by Miss A.

My father's face was oval; he was ill and in bed for several weeks before his death and his eyes became sunken in the course of the illness. I saw him each day.

He was unworldly in regard to material things for himself, but all his life was anxious to provide for my mother satisfactorily in the event of his death. At a sitting with a medium taken six months after his death, an early question to me was: "I hope the money is all right? I tried to see to that," (or similar words conveying this meaning).

He was always slim.

He died of thrombosis, but was previously ill with bronchitis. Yes, naturally I hated to see him suffering, he was never very strong.

The lady I assume to be my mother. She had been worrying about the question of moving house and of what was best to be done for her daughter in the event of her own passing. There have been heavy expenses in connection with repairs which have been causing her concern. The phrase "She should not look too far ahead etc." is very pertinent, I know, because it has been with me that she has discussed these problems.

My mother has from time to time looked through my father's papers which were kept in perfect order.

She placed a bunch of violets in his coffin, he particularly cared for violets.

Comments by Mrs Z.

I did not see either of the two men I knew who passed over in the last two years. "High forehead" applied to both.

The complication about material possessions applied to one of the men but he did not "put everything all right".

Yes, he had another disease apart from the one which caused his death. Yes, I felt very sorry for him. He was seriously ill for a long time.

Both left wives; one is worried financially. She has made changes which have been good. I don't think she worried about the changes.

Probably both wives looked through papers.

Nothing was placed in either coffin.

*Mrs Bedford's trance statement
to Mrs G.**Comments of Mrs G. and her friend
Mrs B.*

7. He knows she looks at his photo and has talked to him.

I had looked at his photo and spoken to him after his death.

8. She is to think more of herself and to remember their conversation about survival. There is a great love round them. He realises what she feels.

Before his death I had a conversation with him about survival in which I expressed my firm belief that after his death he would still be able to be near me and see me.

9. He speaks of expecting a letter before he died which did not arrive.

This is true, but Mrs G. did not know he was expecting a letter. (Mrs B.).

10. He had been unfortunate for years before his passing. He could have achieved more. He was very sensitive.

All this is true. (Mrs G.)

11. He knows she is worried about finances. He has one or two valuable pieces which he gave her and he says she is not to be sentimental but to sell them if she wants to.

This remark about "not to be sentimental about the furniture" was very typical of him. He had no sentiment over furniture, while I always said I hated parting with things associated with people I loved (Mrs B.). She was worried about finances. (Mrs G.).

12. She must not get rid of the house. Good fortune will come to her.

She was thinking of it. She has had better fortune than previously. (Mrs G.).

13. It gave him great comfort that she was there at the end. He knew she whispered to him that she

When he was dying I whispered a message to him that I loved him, and that he was not to worry as we

*Comments of Miss A.**Comments by Mrs Z.*

There is a little family group photograph of the three of us which is on my mother's desk. She often puts a vase of flowers there and speaks to him in her thoughts.

Her thoughts are probably more taken up with her daughter than herself. There certainly is great love between husband and wife. My mother does not remember any particular conversation about survival. My father's religious faith would leave him in no doubt about survival.

I know nothing of this.

My father was not fortunate in material affairs or in his business partnership, which was uncongenial. Given a different partner he might have achieved a great deal more; as it was, being very sensitive, he retired into his shell.

Yes, my mother has been worried about increasing expenses. The most valuable things are probably the rings my father gave her, to which she is so much attached sentimentally that nothing would induce her to part with them, nor does it appear necessary.

Owing to troubles over repairs and three burglaries, my mother has been considering whether it would not be best to dispose of the house.

This paragraph is true. My father could say little to us near the end of his illness, as he had

I expect they have both looked at photographs, but I doubt if either would "talk to him".

I'm sure neither talked of survival. I'm afraid neither of the two marriages contained "great love".

I know nothing of this.

Fairly true about one of them.

Fairly true about one of them.

Neither had a house. One lived in a flat, the other in a hotel.

One wife was present at the passing. Yes, I believe he was afraid of her leaving him, even for a few

*Mrs Bedford's trance statement
to Mrs G.*

loved him, but he could not answer. He was so afraid of her leaving him. He went very peacefully.

14. They had many years together.

15. I get the number 42, 4 and 2.

16. He is helping Jack. He has left some personal things to Jack.

17. He has met Arthur in spirit. Initial B. Initials M and E. Who is Harold? He is with someone called Charles who passed over recently.

18. An impression about an incident concerning keys, to do with holiday.

*Comments of Mrs. G. and her friend
Mrs B.*

should meet again. He was apparently quite unconscious when I said this to him. (Mrs B.). He was afraid of her leaving him. He went peacefully. (Mrs G.)

Yes.

The number 24 would have a great significance to me as it was the number of a house he had lived in. It was also his lucky number. (Mrs B.)

Correct. (Mrs G.)

Not placed. (Mrs G.)

There was an incident in which hotel bedroom keys were brought back from holiday by mistake. (See *Journal*, Dec. 1947, p. 124.)

*Comments of Miss A.**Comments by Mrs Z.*

great difficulty in breathing. He could not bear my mother to be away from the sick-room. Yes, it was a peaceful passing at the end.

minutes. The passing was very peaceful.

Yes, nearly forty years together.

Yes, both marriages were long.

This branch of the family was four in number—two parents and two children.

Not correct.

“Jack” is the name of a very intelligent and much loved dog of ours who appears in the little family group photograph mentioned above. I can make nothing of the reference to leaving personal things.

I cannot place Jack. All possessions were left to the wives, no one else.

Arthur is the name of a particular friend of ours. We have been told in communications at sittings that Arthur and my father have met and spend time together on the other side; there is a link of music between them.

One man who passed over was called Arthur. I cannot place the initials, nor Harold or Charles.

Initial B. unknown as a member of the family. M is my mother's initial, and E is my brother's. Charles and Harold not recognised.

In 1946 the keys were lost while the house was let and I was away on holiday.

I cannot think of any incident concerning keys.

Discussion.

The experiment shows the need for caution in assessing mediumistic material. We have here a lengthy and detailed statement which, if taken at its face value, provides evidence of paranormal cognition, if not of survival. It is all the more impressive in that it was virtually a proxy sitting; most of the items were unknown to Mrs G. at the time. The same statement is circulated to four other persons only. Two of them accept it as applicable to their own circumstances, one of whom confirms almost every detail.

I do not wish anything I say to be construed as reflecting on the sincerity of Mrs Bedford. It is reasonable to suppose that all professional mediums, of varying degrees of psychic ability, unconsciously become familiar with those items which are most readily accepted by sitters; when psychic inspiration fails, or perhaps mixed with genuine items, these "popular" items will inevitably issue forth. Statements about things placed in the coffin, for example, or loss of keys, must be very safe guesses. Other items appear to be out of the ordinary but are not: "He had another disease besides the one he died of." Medical friends tell me that this is far from uncommon. Some less reputable mediums and clairvoyantes undoubtedly make conscious use of such a practice to earn their livings. But even with mediums of the highest quality it is clear that much material may be given which appears at first sight to be exclusive to the sitter, but of which the evidential value must be discounted because it is in fact not exclusive. The discounting done, the ground is a little clearer for a decision whether or not the mediumistic utterances are of supernormal origin.

AYAHUASCA, PEYOTL, YAGÉ

By A. J. C. WILSON

THE plants known under the names of ayahuasca, peyotl and yagé have three things in common. When consumed in suitable quantity they evoke visual hallucinations of astonishing clarity and brilliance of colour, and usually of a pleasing nature. Secondly, because of this property they are revered by the Indians of the regions in which they grow, and have a central place in their religious ceremonies. Thirdly, and this is the reason for writing of them here, they are supposed to produce clairvoyant, telepathic and precognitive powers in persons consuming them. The use of peyotl for this purpose in Mexico is mentioned by several early Spanish writers.¹

Dost thou wander about at night, calling upon demons to help thee? Hast thou drunk peyotl, or given it to others to drink, in order to discover secrets, or to discover where stolen or lost articles were? (Nicolás de León, *circa* 1611.)

If the consultation is about a lost or stolen article or concerning a woman who has absented herself from her husband, or some similar thing, here enters the gift of false prophecy, and the divining that has been pointed out in the preceding treatises; the divination is made in one of two ways, either by means of a trance or by drinking peyote or ololiuhqui [*Datura meteloides*] or tobacco to attain this end, or commanding that another drink it and ordering him to remain under its spell; and in all this goes implicitly hand in hand the pact with the devil who by means of the said drinks. . . . (Hernando Ruis de Alcarón, *circa* 1629.)

[Peyotl] causes those devouring it to be able to foresee and predict things; such, for instance, as whether on the following day the enemy will make an attack upon them; or whether the weather will continue favorable; or to discern who has stolen from them some utensil or anything else; and all other things of like nature which the Chichimeca really believe they have found out. (Francisco Hernandez, *circa* 1638.)

Similar general statements regarding ayahuasca and yagé could be given, but it is difficult to find detailed accounts of specific instances. There is little or no evidence of the property of inducing paranormal powers that reaches the standard required by the Society for Psychical Research for printing as evidential. The two or three instances quoted below do no more than establish a *prima facie* case for further investigation.

I. PEYOTL

Peyotl (peyote, mescal,² muscale) is a small cactus, *Echinocactus Williamsii*, growing in arid regions of Mexico and the southern United

¹ These quotations are taken from La Barre (22), pp. 23-4. (Bold-face numerals refer to the bibliography on pp. 361-3.)

² Mescal is properly a species of agave, from which an alcoholic drink is brewed. The name has been transferred to a spirit distilled from the drink, then to other

States. Most of the plant is underground; a carrot with the leaves removed gives some idea of the size of the cactus and the amount of it visible. The exposed surface is covered with small rounded knobs, arranged in fairly definite rows and each crowned by a tuft of white hair, and the central depression is filled with such tufts. The cactus contains several alkaloids, chiefly in the portion above ground level, of which *mescaline* is responsible for the coloured visions, and *lophophorine* is decidedly poisonous. The use of peyotl when taken by mouth is however quite safe, as large doses provoke vomiting and thus protect the consumer.

The Indians of Mexico, such as the Tarahumare, send special expeditions lasting some weeks to the regions where it grows, the persons taking part being subject to severe restrictions, particularly in the matter of food. The plants are ground with water and the liquid is drunk at an all-night ceremony, dedicated to the god Hikuli, who is believed to be incarnate in the plant.

At times the shaman dances, at times his assistants, and women may dance either separately or simultaneously with the other men participants. The bare-footed men are wrapped to the chin in white blankets; the women wear clean skirts and tunics. The clockwise dancing (with a turn of the body at the shaman's place) consists in a "peculiar quick, jumping march, with short steps, the dancers moving forward one after another, on their toes, and making sharp, jerky movements, without, however, turning round". The men have deer-hoof sonajas, and the rasping and singing are continuous save when the shaman politely excuses himself to the fetish hikuli; others must also ask permission to leave the patio. In the intermittent dancing they beat their mouths with the palm imitating hikuli's talk, or cry "Hikuli vava! (Hikuli over yonder!)" in shrill falsetto. (22, pp. 34-5).

Such ceremonies were formerly confined to the Indians of Mexico, but since about 1880 a religion based on peyotl has spread gradually north and west among the Indians of the United States, and by 1930 had penetrated into Canada (22, 29, 30, 37). Dancing is absent, the ceremonies are simpler, and the dried tops of the cacti ("mescal buttons") are chewed and swallowed without previous preparation, though "tea" may be brewed from them for the old or ill. It is perhaps worth while to quote a few sentences from an appreciation of this religion by two members of the U.S. Office of Indian Affairs.

In the center of the room a sickle or moon-shaped altar is built of earth or other material, its open arms, or horns, facing the eastern door. In front of it a ritual fire is kept burning. . . . The roadchief [chief officiant] prays to the Father Peyote, who is the manifest God, just as Jesus Christ is the Father incarnate. The leader eats the first four peyotes and passes the sack around until everyone has also eaten four. . . . Christian hymns are often sung in meetings, and the Bible is sometimes

things vaguely resembling it in intoxicating action, such as the mescal bean (seed of *Sophora secundiflora*), and peyotl. The identification of peyotl with *teo-nanacatl*, a poisonous mushroom also used in Mexico for producing hallucinations, appears to be incorrect (22, pp. 128-30; 33; 34).

seen on the altar with the fetish peyote. . . . the moral values of Christianity pervade the peyote cult. . . . The Indian actually merges the two religions. He believes that the white man's God and his own are the same, but that each approaches him in his own way or by his own road (30).

Although continually gaining new converts and spreading into new regions, the peyotl religion appears to be dying out among the tribes that embraced it earliest. La Barre (22, p. 90) mentions some "precognitive" happenings in such meetings, but unfortunately gives no details. For what they are worth, I quote them here :

. . . prophecy in minor matters still occurs via peyote (*e.g.* the Delaware case in which a serious industrial accident might have been avoided if he had only been able to interpret correctly a warning peyote gave him). Old-time Comanche could hear the enemy while still away off when they ate peyote, and in making raids could discover the whereabouts of horses, etc. White Wolf, again, visioned Charley Seminole's face all bloody at a peyote meeting, but was unable to interpret the prophecy ; somewhat later, sure enough, the Seminole accidentally shot himself under the eye.

Psychologists and other persons of European descent studying the effects of peyotl have ordinarily taken about an ounce of the dried plant, or an equivalent amount of the alkaloid, say one-fifth of a gram of mescaline sulphate. The doses taken by the Indians are two to twenty times as large. The typical effects of the drug are as follows, though there is much individual variation. There is first nausea, varying in intensity from a vague feeling of discomfort up to actual sickness. It can usually be relieved by a small quantity of food or drink. One case has been recorded where an excessive dose produced a feeling of imminent death (15). Then there is a sharper perception of colour, light and shade, and often a coloured flicker, typically blue, begins to play around the outlines of objects. On closing the eyes or going into a darkened room coloured visions appear. At first these are simply colours without definite outlines, and in one subject, who states that he is normally devoid of the power of visual imagery, they hardly passed beyond this stage (16). Usually, however, more or less geometrical patterns appear, such as coloured rain, fields of jewels or flowers, interlacing spirals, fretwork, arabesques and the like, usually in motion. It is possible that the background of these designs is furnished by the blood circulation immediately behind the retina (25, 26, 27). These are followed by more organic forms, birds' or butterflies' wings, vegetation, landscapes, and in the last stages animal or human forms appear, the latter usually in quaint and unfamiliar costumes. The last effect is often a night or two of "absolutely restful insomnia" (16). When sleep supervenes dreams do not appear to be influenced in any way by the drug. The whole process occupies perhaps eight to twenty hours, during which time hunger, thirst, and fatigue are at least partly suppressed. For this reason the Indians of Mexico often eat peyotl on long journeys. In some subjects peyotl produces disorientation in spatial relations and in the sense of time (15, 16, 19).

The following extracts from first-hand accounts will give some idea of the visions and other mental phenomena. In the first case there were no visions (36) :

Fifteen minutes afterwards I experienced slight dyspnoea accompanied by transient headache, which symptoms were rapidly followed by intermittent tetanoid spasms in the hands and feet, and with a sensation of general *bien aise*. A sense of egotistical concentration, together with a delightful feeling of irresponsibility toward one's surroundings, succeeded, and lasted, in all, eleven hours. No spectral illusions were present; however; neither was there any vertigo nor subsequent drowsiness. The heart was accelerated during the whole of the period, the radial pulse varying between 80 and 90. The pupils were unaffected, and the digestive powers were undiminished.

In the second case coloured visions were seen, but did not develop to any great extent. There was however temporal and spatial dislocation (16) :

During most of the observations I was bothered with stomachic aches and pressure in the abdomen, and later with continuous frontal and occipital headache. . . . I reclined and bandaged the eyes . . . a spot of white light of low intensity appeared about the center of the horopter [field of view]. From then [1.43 p.m.] until 2.58 there were intermittent color effects. Colors from violet to orange appeared, but seldom red. The colors were rarely of a high degree of saturation. Two spatial forms were present . . . one in the form of an arc in the upper half of the horopter, and the other in the form of lines down the center of the horopter. The colors seemed to be in constant movement. They did not seem to be affected when I opened the eyes inside the blinders, which were entirely light-proof. . . . At 3.22 the blinders were replaced and the color effects began immediately. During this period colored circles appeared, always spinning in a counter-clockwise direction. . . . The blinders were then [about 3.54] removed, and the parts of my body, seen visually, seemed to be very far away. I extended my arm and fixated the finger-tips, and then stretched the arm away from me. The hand seemed to move a distance of at least ten feet. The stenographer moved her head and shoulders back a few inches, and she seemed to be drawing back many times that distance. This distortion of space was present for both monocular and binocular vision. . . . Accompanying the distortion of space there was also a distortion of time. A given period of time seemed very much more extended than normally. Speech seemed slow. Walking became a ponderous affair. In walking I felt successively sensations from the muscles and joints involved. I became aware at each step, for example, of the sensations due to the curling of the toes.

The third example illustrates fully developed hallucinations (10) :

Visions began to appear within twenty-five minutes after ingestion of the drug. At first they were simple in pattern and colouring, and were visible only with the eyes shut. Later they became more complicated; they no longer comprised geometrical designs, but took on three-dimensional form, appearing as figures and scenes, all most brilliantly

illuminated and coloured, and all changing with the utmost rapidity. The hallucinations now became apparent with the eyes open, though never to the same extent as when the eyes were closed. . . . The first vision consisted of a black diamond edged with green, followed shortly by circles of yellow light against a dark background. Next appeared something recalling a desert scene. "On the horizon is a setting sun, lighting up the landscape with a dark-red glow. The radiations from the sun are a beautiful combination of red and black. In the foreground are several black figures as though they might be camel riders or trees. The foreground now begins to assume a greenish-yellow colour." . . . "A particularly picturesque scene: an old-fashioned single span bridge across the upper reaches of a river. There are large stones at the sides of the stream and a narrow navigable channel in the middle. A very restful picture . . . now there is a sort of close-up of the bridge, which is of the old-fashioned type composed of large blocks of stone . . . while looking at the bridge a pillar has appeared in the centre and transformed it into a double-span bridge. . . . The water is quite still and there are sharply delineated shadows in various tints of blue, green and yellow. . . . The water now starts to ripple; it is now drying up and the rocky bed becomes visible. . . . The bridge is getting smaller and the rocky bed is gradually becoming transformed into a stone road in a moorland scene."

Sometimes the sensations seem to have differed in kind from those of everyday life, as in this last example (the artist in 15) :

The first paroxysms were the most violent. They would come on with tinglings in the lower limbs, and with the sensation of a nauseous and suffocating gas mounting up into my head. Two or three times this was accompanied by a color vision of the gas bursting into flame as it passed up my throat. . . . At another time my eye seemed to be turning into a vast drop in which millions of minute creatures resembling tadpoles were in motion. . . . My right leg suddenly became heavy and solid; it seemed, indeed, that the whole weight of my body had shifted into one part, about the thigh and knee, and that the rest of my body had lost all substantiality. . . . At one moment the color, green, acquired a taste in my mouth; it was sweetish and somewhat metallic; blue again would have a taste that seemed to recall phosphorus; . . . the strangest of all my color visions . . . began with a feeling that the skin of my face was becoming quite thin and of no stouter consistency than tissue paper, and the feeling was suddenly enhanced by a vision of my face, paper-like and semitransparent and somewhat reddish in color. To my amazement I saw myself as though I were inside a Chinese lantern, looking out through my cheek into the room.

The visual phenomena are in most cases visions rather than hallucinations, as they are seen only in the dark or with closed eyes. Opening the eyes normally dispels them, though the real objects then seen may be perceived with some modification of their normal appearance, or in the observer's mental attitude to them. Occasionally the visions persist with open eyes, taking up a position among or hiding real objects, and they would then rank as genuine hallucinations. The visions do not seem to be

reproductions of objects previously seen, and are rarely under volitional control, though Indians of the peyotl religion claim that with practice they can alter or suppress entirely their visions (17, 29). In the developed stages the source of the visions is presumably the subliminal consciousness of the observer; the remarkable similarity of the visions in the early stages—the “form constants” of Klüver (20)—supports the suggestion of a physiological basis for them (25, 26, 27). If the source of the developed visions is in the subliminal, that is if the effect of the drug is to weaken the barrier between the conscious and the unconscious, the occasional occurrence of telepathic phenomena would be explained, as these processes appear to take place subliminally (1, 5). Rouhier tried the effect of an extract of peyotl on six subjects (32), one of whom developed apparent telepathic abilities (31). During the period of his visions he occasionally saw objects thought of by one of the persons, and in a case of apparent telepathic clairvoyance he described in some detail a bedroom with an empty bed. The bed should have been occupied, but it was established that it was in fact empty at the time of the vision. Warcollier (5) quotes what appears to be the percipient's account of the same event. I translate the latter here, in preference to condensing Rouhier's longer version.

A first vision of the head of Dante and of that of Henri IV having succeeded perfectly, Mme S. wished to try to make me see a little book that she knew was to be found at the home of her cousin, a cousin who had just become a mother and whom she believed to be in bed in her room at the time of our experiments. Almost at once I had a vision of a room of which I described the furniture, the hangings and the bed, but, contrary to what Mme S. believed, I saw this bed empty, and, in spite of all her efforts to make me see the person whom she believed to be in bed there, I persisted in depicting it absolutely empty. Among the objects furnishing this room and which she recognized from my descriptions were two objects that astonished her: a bottle of brown perfume in a cardboard box and a pot of tooth-paste. . . . As for the book that she wished me to see, there was no trace in the room.

The next day our friends had, if not the answer to the riddle, at least the explanation of the fact. At the time of our experiments, her cousin, taking advantage of a moment when she was alone with her nurse, had got up for the first time and had sat down in a neighbouring room, carrying away the famous book that I had been unable to find. As for the two unknown bottles, they had just, an hour before, been given to the young mother and were as yet unknown to anyone in the family.

It would be easy to criticize the conditions under which this experiment was conducted, but it is one of the few that have been recorded in detail.

2. AYAHUASCA

There has been considerable confusion between ayahuasca (caapi) and yagé (caapi-pinima), as their effects are very similar and the two are often used in conjunction by the Indians. It seems clear however that there are two distinct species of plants involved, ayahuasca consisting of *Banisteria Caapi* and related species (*B. inebrians*, *B. Rusbyana*, etc.) and yagé of *Haemadictyon amazonicum*. The latter is distinguished from the former

by the blood-red veins of its leaves ; among the tribes that call ayahuasca (aya-huasca = dead man's vine) *caapi* (caa-pi = narrow leaf), yagé is called *caapi-pinima* (painted *caapi*) in allusion to these veins (44). The active constituent of ayahuasca is the alkaloid *harmine*, found also in the Russian plant *Peganum harmala* and having some applications in medicine.¹

The various species of ayahuasca are climbing plants (lianas) growing in the upper reaches of the Amazon and its tributaries, and also in similar habitats on the western slopes of the Andes. Their height may exceed one hundred feet. They are sometimes cultivated by the Indians along the borders of their manioc plantations. A preparation of the lower stems is used, these being either ground with water or simply boiled until a drink of suitable strength results. Spruce (44) gives the following description of the use of ayahuasca at a "feast of gifts" :

In November 1852 I was present, by special invitation, at a Dabocurí or feast of gifts, held in a mallóca or village house called Urubú-coara (Turkey-buzzard's nest), above the first falls of the Uaupés ; . . . We reached the mallóca at nightfall, just as the butútos or sacred trumpets began to boom lugubriously within the margin of the forest skirting the wide space kept open and clear of weeds around the mallóca. At that sound every female outside makes a rush into the house, before the butútos emerge on the open, for merely to see one of them would be to her a sentence of death. We found about 300 people assembled, and the dances at once commenced. . . .

In the course of the night the young men partook of *caapi* five or six times in the intervals between the dances ; but only a few of them at a time, and very few of them drank of it twice. The cup-bearer—who must be a man, for no woman can touch or taste *caapi*—starts at a short run from the opposite end of the house, with a small calabash containing about a teacupful of *caapi* in each hand, muttering "Mo-mo-mo-mo" as he runs, and gradually sinking down until at last his chin nearly touches his knees, when he reaches out one of the cups to the man who stands ready to receive it, and when that is drunk off, then the other cup. In two minutes or less the effects begin to be apparent. The Indian turns deathly pale, trembles in every limb, and horror is in his aspect. Suddenly contrary symptoms succeed : he bursts into a perspiration, and seems possessed with reckless fury, seizes whatever arms are at hand, his *murucú*, bow and arrows, or cutlass, and rushes to the doorway, where he inflicts violent blows on the ground or the doorposts, calling out all the while : "Thus would I do to mine enemy (naming him by his name) were this he!" In about ten minutes the excitement has passed off, and the Indian grows calm, but appears exhausted. Were he at home in his hut he would sleep off the remaining fumes, but now he must shake off his drowsiness by renewing the dance.

¹ Reinberg (43) gives a list of the names among various tribes. Usual synonyms for ayahuasca include *çaya-huasca*, *iyona*, *çiri-panga*, *natema*, *kaçpi*, *kããpi*, *kapi*, *nepi*, *nepe*, *pinde* ; for yagé they include *yajé*, *yahé yajén*, *yaje*, *iáhi*, *kaapi-pinima*, *kadana-pira*, *kulikaxpiro*, *mihi*. The identity of yagé with *Haemadictyon amazonicum* is not quite certain ; neither Spruce nor Reinberg saw yagé in flower, and the identification was based mainly on comparison of the leaves.

Here it seems that the plant was used simply for the pleasureable effect of the intoxication and the hallucinations, but it is employed in greater amount and with perhaps the addition of yagé or *huanto* (*Datura arborea*, active principle presumably *hyoscine*) by the medicine men when their professional services are required for the recovery of stolen property, foreseeing the approach of the enemy, discovery of unfaithful wives, and in other important affairs of primitive life. When so used the waking hallucinations are continued into a profound unconsciousness, on awakening from which the medicine man relates and interprets his visions.

First-hand accounts of ayahuasca visions are rare, and there is not the profusion of studies by psychologists that one finds in the case of peyotl. Travellers in the regions where it grows are however agreed that the initial hallucinations are pleasant, consisting of such things as butterflies, flowers, birds, cities, aerial views, and that these are followed by terrifying appearances, such as monsters, jungle beasts, armed opponents. I have been unable to find an account of a veridical hallucination affecting a person of European descent after its use. Reinberg (43) drank about a teacupful of a decoction made by boiling 120 cm. of ayahuasca stem and five or six yagé leaves in one and a half litres of water until the quantity was reduced to one-quarter litre; he gives the following description of his experiences:

There is some difficulty in swallowing saliva, and I have almost a sensation of paralysis of the muscles of the neck and larynx. Before my eyes shine luminous circles, phosphenes [spots of light], and I see flying in a *ebloissant* sky butterflies belonging to the species collected this morning, which are abundant here. The view is very clear, too clear, and it seems to me that I am looking through a little hole pierced in a card. . . . I observe all symptoms with a perfect clarity of mind and am present at all happenings *as if it were someone else affected* and this symptom specially impressed me. I have pains in my ears: salivation is increased: I have no nausea. But Teofilo had explained to me that nausea (*mareación*) is the precursor of [paranormal] dreams. . . .

Reinberg then took more of the decoction, and had such violent physical symptoms that he abandoned the experiment and attempted restorative treatment. Spruce was given caapi at the feast described above, but was overwhelmed with various other native delicacies before he was able to observe any visual effects.

3. YAGÉ

Yagé also is a climbing plant, but attains a height of only ten to fifteen feet. Its reputation as an inducer of telepathic visions is greater than that of either peyotl or ayahuasca, so much so that Zerda Bayon (49) named its active principle *telepatina*, which has been regularized as *telepathine*. Barriga Villalba (45), who isolated it independently, named it *yagéine*, which is perhaps a more suitable name for ordinary chemical use. It is prepared and used by the Indians in much the same way as ayahuasca, and the visions it induces are similar, though a bluish aureole is said to be characteristic. Rouhier (48) analysed a native preparation, and found that it contained 0.26% of *yagéine*. *Yagéine* is poisonous, doses of about 0.2

gram per kilogram of body weight being sufficient to kill guinea pigs. The immediate cause of death is cessation of breathing.

It is difficult to form an opinion on the supposed telepathic property of yagé. Many accounts agree on its reputation among the Indians, but it is probably safe to say that no instances exist of the standard required for printing by the Society as evidential. The only detailed case I have found is the following :

I was induced after considerable hesitation on my part by Colonel Custodio Morales, Commandant of the military detachment in the Intendencia of the Caquetá, who wished to try the effects of yagé upon himself in my hut on the bank of the river Hacha, to give him 15 drops of a preparation of yagé which at the time I believed to be its active principle. He took the tincture at night in a jar of water, and in the morning, at reveille, he came to me with the news of the death of his father, who lived in Ibagué, and of the illness of his little sister, whom he loved very dearly. All this he declared that he had seen during the night ; no one had arrived who could have communicated such news to him, and the nearest post or telegraph office is at least 15 days' journey away. About a month after this strange vision a courier happened to arrive with letters which announced to him the death of his father and the recovery of his sister from a serious illness. It should be mentioned that Colonel Morales is a man of eminently nervous constitution, that he was very ill-fed, and that he is highly intelligent.

This story is quoted from a letter from Dr. Rafael Zerda Bayon in the *Times* (49) ; a version differing only in minor details is given by Warcollier (5) from a South American source. Warcollier was unable to obtain confirmation direct from Colonel Morales. The incident is suggestive, but many similar occurrences with corroboration from the percipient or others conversant with the circumstances would be needed before it could be admitted that yagé deserves its telepathic reputation.

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There are very many publications dealing directly or incidentally with these plants, and an exhaustive bibliography would be prohibitively long. The following list contains (i) relevant publications consulted in detail in preparing this note, and (ii) a few publications that appear from abstracts or references to be important, but which for some reason could not be consulted. The latter are distinguished by printing the author's name in italics. The fullest bibliography on peyotl, extending to some fourteen pages, is given by La Barre (22).

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