

Current Plans for Investigations in Psychical Research

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With the encouragement and hospitality of the A.S.P.R. the writers have pursued during the last three years a series of intensive, and necessarily rather narrow, lines of experimental research. During these three years various methods of experimentation have been devised which permit, we believe, the application of all the necessary scientific safeguards. The time has now come for a "horizontal" extension of our work—that is, the introduction of many additional types of research, in order to put to the test a number of hypotheses regarding the nature of psychical occurrences. Some of these hypotheses are old, some are new.

The results being currently secured encourage us to communicate our plans to the readers of the JOURNAL in the hope that they may be of interest, and may stimulate suggestions and constructive criticism. Our relation to the Society is today much closer than it was at the time of the beginning of our experimentation, and the research group has worked long and faithfully. The members of this group are, of course, to some extent familiar with our plans and hopes, but there are many evidences that the membership of the Society as a whole might care to have from us a rather full presentation of our plans for work in the future. We shall present, then, in this paper, (a) a discussion of the varieties of experimental work which we are planning to undertake at the rooms of the Society, and (b) research plans which reach out somewhat more broadly.

KNOWLEDGE OF RESULTS

First, we wish to report on a device recently developed to study the old question whether psychical ability can be trained, that is, whether percipients can learn, from practice, to get better and better results. In other words, we are interested in the question, "Are psychical functions, at the level at which we are dealing in our research, capable of development?" In this connection it is interesting to con-

sider certain principles which have been demonstrated in the field of psychology. It has long been known, for example, that in acquiring any new skill, it encourages the subject and tends to hold his interest if, as he learns, he knows how well he is doing. Knowledge of results is sufficient in itself to provide much motivation for ordinary learning processes. Reward and punishment, of course, have long been used in motivating human behavior, and perhaps the principles involved can be transferred to the field of parapsychological research. Knowledge of good scores may serve as a reward, and knowledge of poor scores may serve as a punishment. The important fact is that both reward and punishment motivate the usual learning processes. In the whole field of the experimental psychology of learning, as in the study of such processes as learning to typewrite or to telegraph, the learner knows when he "gets it right." He is given an opportunity to see his own errors and to correct them. Long ago Judd showed that children practicing at a difficult task, never knowing when they got it right, failed completely to acquire any skill in the execution of the task. Other children, however, who knew exactly how well they were doing, improved hourly, and quickly acquired a high degree of proficiency. And Thorndike has recently published voluminous data which show that the same is true of adults.

In both the early English and American experiments in telepathy the percipient was frequently given a report of his successes; this was also a standard feature in the experiments of Warcollier in France. The Duke University laboratory has made a practice of reporting the scores to percipients after each series of twenty-five trials of telepathy or clairvoyance, and has found that knowledge of results has a stimulating effect, while withholding such knowledge demoralizes the percipient and may even lead to prolonged scoring below the level of chance expectation. It seems to us, then, that if it is beneficial to know one's score after twenty-five attempts, it might be even more beneficial to know after each single trial whether or not the result of

that particular trial was successful. This line of thought suggested an experimental procedure which makes it possible for the subject to know instantly whether each telepathic or clairvoyant effort achieved its goal.

Accordingly, a two-way communicating system has been set up in the rooms of the Society. The subject who is to be tested sits in room A or F of the floor plan, Figure 1. Before him is a panel bearing five telegraph keys, each one of which is labelled with one of the five ESP symbols: cross, star, circle, wavy lines, and square. (Figure 2). By pushing down one of the five keys he indicates his impression, his "guess," as to the card at which the experimenter, seated in room D, is looking; when the subject pushes down a given key, he turns on a light on the experimenter's panel (Figure 3), the lights being labelled to correspond with the keys of the subject's panel. The experimenter then signals back to the subject whether that particular trial was right or wrong; he throws a two-way switch one way or the other, thereby flashing either the "right" light or "wrong" light on the subject's panel.

It might be objected that this technique permits the operation of various cues. Although in the experiments conducted to date the experimenter has not known consciously what the next card was to be at the time of signalling "right" or "wrong" on the previous card, it might be argued that the experimenter subliminally perceives the next card from the back of the card, and that he informs the subject what it is by varying the duration of the signal flash or the interval between a given trial and the signal, and, finally, that the subject subliminally perceives this cue, thereby spuriously raising his average score.

Therefore, the apparatus is currently being altered so that the subject's act of pushing a given key automatically flashes the "right" or "wrong" light, according to manipulations performed by the experimenter at his panel, in accordance with the target for each trial.

The experimenters use as materials for the experiment decks of ESP cards, previously prepared by a third person

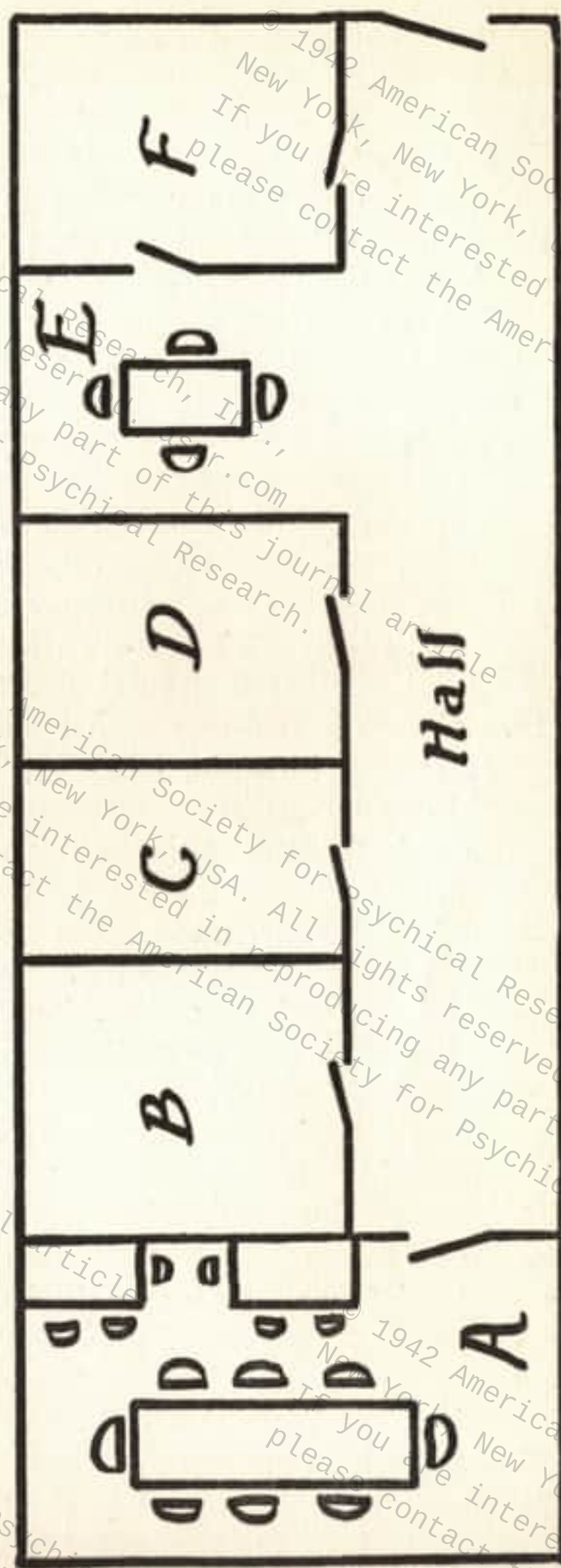


FIG. 1. FLOOR PLAN OF THE A.S.P.R. OFFICES



FIG. 2. SUBJECT'S PANEL

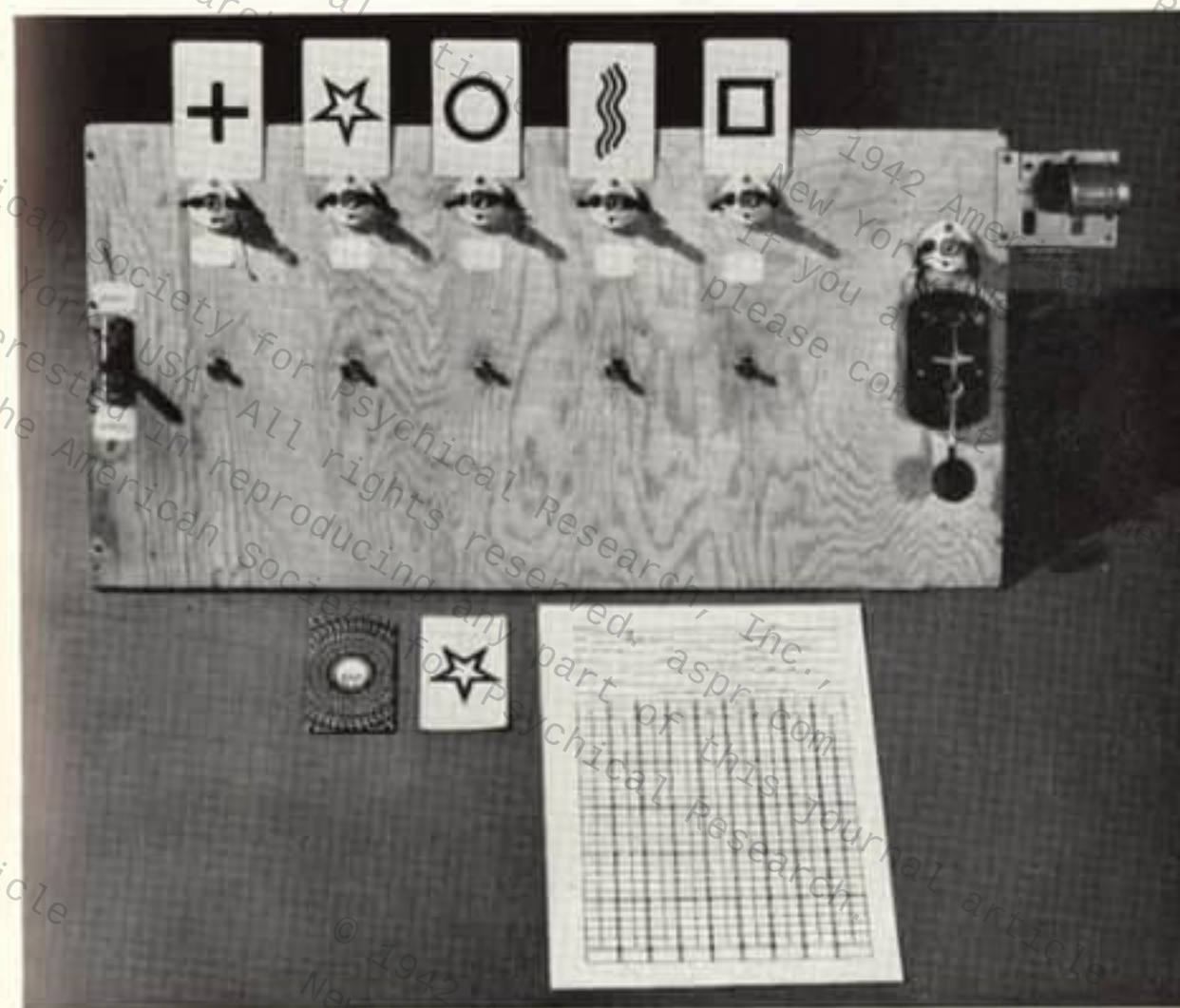


FIG. 3. AGENT'S (EXPERIMENTER'S) PANEL

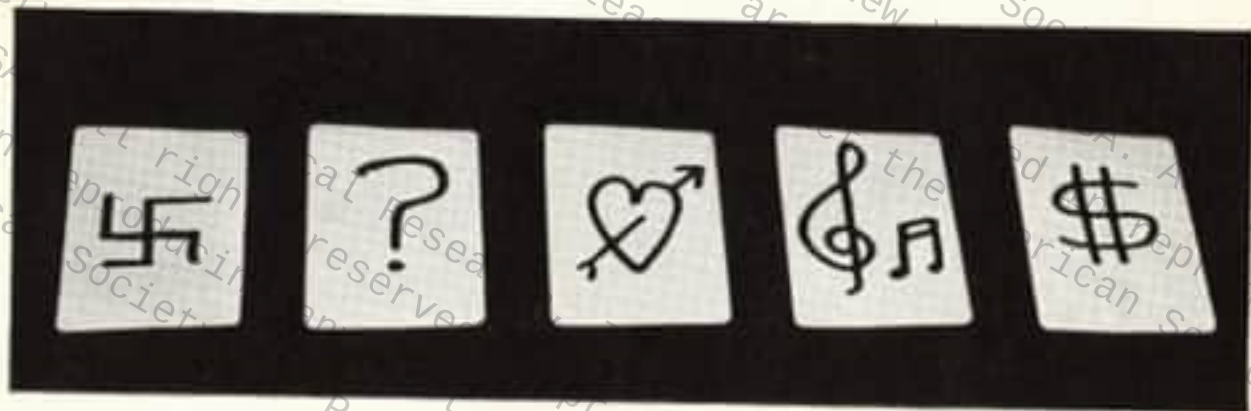


FIG. 4. THE "FIVE-SYMBOL" DECK



FIG. 5. THE "AFFECTIVE TONE" DECK

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according to random numbers, so that each event in the experiment is independent; there is thus no way in which the subject can logically infer what card is coming next, as would, of course, be the case if each deck of twenty-five symbols were confined to five each of each symbol. The subject must get his impressions as to the cards by extra-sensory perception or, in the long run, he will score only at the level of chance expectation, which is one trial correct out of five, or five correct out of twenty-five.

It is important to note that the experimenter's panel is also equipped with an automatic electrical counter which records the number of correct trials, or "hits." This makes recording errors extremely unlikely, if not impossible. It is interesting to note that thus far the automatic counter has not once indicated that the human recording has been in error by so much as a single trial.

This first method has been designated by us as the "knowledge-of-results," or KR procedure. The scoring level for the first ten thousand calls was 5.265 correct calls out of 25. This represents a deviation in excess of chance expectation of 106 hits. The critical ratio, based upon these data, is 2.65; this means that a deviation as great as that obtained is expected, if chance alone is operating, about once in 250 such experiments. The data are, therefore, strongly suggestive although not conclusive.

There is also a second method in current use, representing a slight deviation from the first method, which we call the "guess-till-you-get-it" procedure. The subject tries, as before, to guess the card, but if the signal light flashes back "wrong" he tries again and again until he has successfully identified the target. Although our chief interest is in the question of whether the first call on a given card is correct, there are numerous other problems of interest. Some subjects report that often it is difficult for them to make their choice between two out of the five symbols, for two appear quite vividly to the inner eye, or sometimes even externalized in the form of a visual hallucination. Perhaps, though

failing on the first guess, he will score better than chance expectation on his second guess, thus gradually learning to discriminate between the two symbols which present themselves to him. Possibly extra-chance scoring on the first guess may be the result, at least in some subjects, of a lessening of tension; he knows that he is going to have five guesses, so he can afford to "take it easy." On the other hand, there is a possibility that other subjects will become frustrated by a failure on the first guess, and will therefore make a series of wrong guesses, succeeding in identifying the card only when there is just one guess left, which, of course, must be correct. The probabilities are in a state of flux as the subject makes successive wrong guesses, but the chance expectation at each point is easily determined, and it is possible that interesting deviations from expectation might appear at any call.

Both the methods described above have given highly gratifying results, which will in due time be analyzed and published. At present two explanations of these results seem possible:

First, it may be that these methods are so interesting to the subject that he tends to get high scores simply because he is interested, and not because he is actually *learning* anything about ESP. Second, it is possible that, as stated above, the subject is actually learning what to do—is actually acquiring the "knack," so that scores will improve week after week, or will at least remain consistently above chance level. In the light of subsequent results, over a long period of experimentation, we will be able to decide which of these alternative explanations for current scoring is the correct one. Then it will have to be decided whether it is worth while to extend the method to other stimulus material, such as colors, words, and other varieties of stimuli among which the subject must choose.

A good many subjects have already been used with these methods; nevertheless, we are anxious to use many more. If any readers of the JOURNAL have time to devote to experimentation of this kind, we should be grateful for their col-

laboration. This would necessitate, at present, coming to the rooms of the Society; the method could, however, easily be duplicated and used elsewhere.

The knowledge-of-results procedure does not necessarily require a two-way signal set of the type described above. We are beginning to experiment with another method in which individual ESP cards are placed in small cardboard boxes, one card in each box. The row of twenty-five or fifty boxes, with the lids on, is placed so that the subject can see them all. The subject makes his call on the first card, then he removes the lid and sees whether he guessed it right or wrong, and so on with the second and other remaining cards. Since the order of the cards in the boxes has previously been recorded by a third person, and since the experimenter writes down the subject's call before each box lid is removed, it is believed that this method is thoroughly adequate for determining the possible effect of knowledge-of-results in a clairvoyant procedure. The box method also has the advantage that a group of subjects can be tested simultaneously, the experimenter making sure that every member of the group has made his call before the box lid is removed.

AFFECTIVE STIMULUS MATERIAL

In most of our work during the last few years we have emphasized simple visual material, such as playing-cards, the Duke University ESP cards, cards printed with arabic numerals, letters of the alphabet, and other types of material which have no particular emotional significance to our subjects. Efforts to introduce an emotional factor, arousing greater interest and making the experiment similar in one respect to the emotional cases that are so striking in the literature of psychical research, entail many difficulties. We are now using not only the simple materials just described but also a new deck of five symbols (Figure 4) consisting of a musical clef, a dollar sign, a question mark, a swastika, and a heart pierced by an arrow. We are also using a set of five pictures (Figure 5), the nature of which ranges

from intense horror to rollicking humor. A third set of emotional material consists of American flags interspersed with swastikas, sometimes mixed in fifty-fifty proportions, sometimes with only a few flags mixed in among many swastikas. The subject's task is to designate which one of a long series of cards is a "flag" card. Also, we are continuing to use color cards, for these have marked emotional value for some subjects. We need, however, several more months of experimentation with these new types of material to permit a comparison of the results with those obtained by the old and more familiar materials.

SENSORY AUTOMATISM

Another current method has been developed along a rather different line. It has long been noticed that sensory impressions, such as the voices or footsteps which we occasionally hear in the rustling of the wind, or the human shapes that we discover in the landscape at dusk, may serve to give expression to our half-conscious thoughts or fears. "Illusions"—that is, misinterpretations of some objective entity, are more common than "hallucinations"—impressions lacking an objective reference point in the world of physical stimulation. The English "Census of Hallucinations" found that true hallucinations were rather rare; but illusions, even very striking ones regarding the forms or voices of human beings, are common indeed. Now there is nothing to prevent a supernormal or veridical impression from building itself up from the objective physical impression of a dull sound or vague visual presentation. Thus crystal-gazing, as in Miss Goodrich-Freer's experiments,² may take its departure from an objective physical surface of light and shade and develop into a vision of a distant event. And an occasional subject, like the medicine man of some primitive tribes, may while listening to a conch shell hear in its roaring sound voices conveying information to which others are insensitive. These impressions which elaborate themselves from a starting point in direct sensory stimulation must of

¹ Report on the Census of Hallucinations, *Proc. S.P.R.*, Vol. X (1894)

² Recent Experiments in Crystal-vision, *Proc. S.P.R.*, Vol. V (1888-89)

course be classified as "sensory automatisms," to use F. W. H. Myers' term.³ Now while no ordinary member of an experimental group will frequently have full-fledged *hallucinations* during telepathic experiments, many of them can discover definite forms in an indistinct visual stimulus and in this way give an unconscious extra-sensory impression opportunity to externalize itself (much as was done in Warcollier's work). We are therefore beginning to use sheets of milk glass which are sufficiently smooth and also sufficiently irregular to present to the subjects, under daylight conditions, a vague suggestion which takes form as *star*, *waves*, *cross*, *circle*, or *square*. The roaring of the conch shell also permits some subjects to hear words describing the object used in the experiment. In this way impressions are easier to receive and there is less sense of "sheer guessing" as one makes one's calls.

NEGATIVE SCORING

There have been many evidences that ESP testing, whether for telepathy or clairvoyance, may set up a negativism, a hostile or defeatist attitude, in the subject, so that he not only fails to score above chance expectation but consistently and significantly scores below such a level. The Duke University work has repeatedly included reference to such prolonged negativism. Mr. Hugh Woodworth of Vancouver has recently distributed an unpublished manuscript with new data on, and an ingenious interpretation of, the negative attitude. Our earlier work published in the *Proceedings* of this Society contains references, as the reader will recall, to significant below-chance scoring in the task of choosing between red and white cards. A negative trend is in many ways as interesting as a positive one, for, as Dr. Rhine long ago remarked, one must, in a sense, "know where it is" in order to miss a target consistently more often than chance alone would account for.

A method, therefore, which could consistently induce a negative attitude and drive subjects temporarily into a

³ *Human Personality and Its Survival of Bodily Death*, Vol. I, p. 222

negativistic phase, to be pulled out later by a different method, will have considerable psychological value. In group experiments carried out with college classes, we have some slight suggestive evidence that *opaque black envelopes*, each containing a card to be called, may produce a negativistic state such as will give below-chance scores. The group method is not completely satisfactory, however, and we hope to work intensively with a few subjects who are consistently and markedly negativistic.

HYPNOSIS

It has been the consistent experience of the French investigators, and of a few German and British investigators as well, that the hypnotic condition is favorable to telepathic phenomena. Warcollier rather cogently urges that it is not hypnosis *as such*, but the relaxed or "dissolved" semi-sleeping condition of the subject which is helpful, and that other methods of producing a prolonged drowsiness, while keeping the subject's mind on his task, serve as well. He points out, in fact, that the period just before falling asleep and just after waking is ideal for his purposes. We have begun some modest experiments with the drowsy relaxed condition, and are working with one subject who passes into an hypnotic condition, which, while not completely somnambulistic, is still well dissociated. There are good paralyses and post-hypnotic phenomena. We have accordingly begun experiments in telepathy and in the perception of distant objects through a procedure of the sort discussed by Myers under the term "traveling clairvoyance." We are also in communication with one of the country's best hypnotists, and we look for an extension of present studies through collaboration with this psychologist.

LONG-DISTANCE TELEPATHY EXPERIMENT

Another research project is the long-distance telepathy experiment, about which our readers are already informed through Mrs. Allison's letter announcing the dates and procedure. The present experimental effort is a development of the long-range experiments conducted by Mrs.

Allison at the Boston Society for Psychic Research, but with a considerable number of modifications suggested by Whately Carington's experiments in Britain with group telepathic tests. Five simple drawings chosen by a suitable random method from a large population are used on each experimental evening. Mrs. L. A. Dale acts as agent every Tuesday evening at the Society's rooms, retracing and concentrating upon each of the five drawings in succession for a period of five minutes.

We shall score the data by the most recently developed Carington procedure, using also several other methods. We are interested not only in "dead hits" but also in partial hits, and not only in those which appear at the exact time that the given picture is being looked at by the agent, but also in those which are displaced forward and backward in time (precognitive and retrocognitive cases). We shall study the agreement between the *word* used by the perceiver to describe his impression and the *word* written as a label under the drawing at which the agent is looking. We have also developed a rather elaborate "control method" to ascertain the degree to which the drawings or impressions correspond with drawings *not* actually used by the agent in the experiment. The way having been paved by the genius and long experience of Whately Carington and René Warcollier, we believe that we can, without adding much that is new, do a job that will be based upon, and in some ways will go beyond, previous studies. We shall send large samples of the data to Carington in England for scoring as well as scoring our data here. This study will also probably justify a rather long report.

MEDIUMISTIC EXPERIMENTS

Finally, there are currently in progress at the Society two series of sittings with non-professional mediums: the first series is with a trance medium, the second is with Mrs. Halsey, who, under the pseudonym of Mrs. Vernon, is well-known in the literature of psychical research. It is

hoped that reports of these experiments will in time appear in the JOURNAL.

SPONTANEOUS CASES

Both of the writers have been reading a good deal during the last few months in the field of spontaneous telepathic occurrences, that is, the field of apparitions, coincidental dreams and the like, and they are attempting a systematic study of the psychological conditions which obtain at the time of these occurrences. We are slowly preparing a "master chart" which will indicate the physical and mental condition of both agent and percipient, the emotional bond between them, the immediately preceding conditions, the season of the year, weather and time of day, the form which the impression took, the form and content of the first report which the percipient made regarding it, the impressions of the witnesses to whom the experience was communicated, the influence of selective memory in distorting the impression as time went on, and other psychological conditions.

Our hypothesis is that spontaneous cases differ from experimental cases only in that nature has combined a number of favorable conditions in the spontaneous cases, while the experimenter has gropingly and not always very successfully attempted to combine them in the experimental cases. Consequently it should be possible, by studying intimately the principles governing spontaneous cases, to duplicate in some measure the physical and mental conditions which are helpful. There is, of course, a great deal which cannot be duplicated. Many of the spontaneous cases have to do with violent and tragic events. There is, nevertheless, much that can be done, and when the conditions are fully specified by the experimenter and then concretely realized in the experiment, there is much greater certainty regarding the real dynamics of the situation.

Such a "master chart" serves, then, two purposes. First, it begins to make possible a plan for the systematic study of current spontaneous cases happening all about us, an undertaking which we hope to be ready to inaugurate in a

few months. Second, it paves the way for experimental investigations in our own laboratory, utilizing either those individuals who have had one or more spontaneous experiences, or others whose temperament or way of working permits experimental procedures making use of conditions similar to those in which the spontaneous cases occur.

An example from geology may be fruitful. The experimental scientist cannot in his laboratory create the Grand Canyon of Arizona, even in miniature. He does not have the time dimension; he cannot in a short time get rock erosion and the elevation of the earth's surface by any combination of his laboratory methods. He can, nevertheless, test in his laboratory each of the general principles which underlie the formation of the Grand Canyon. He can study gravitation, friction, the building up and breaking down processes in trees and plants, the processes by which fossil bones and gravel interact. The laboratory thus offers an opportunity to put to exact test all of the hypotheses suggested by studying the Canyon; and the laboratory discoveries in turn show him what to look for, and how to find in the Grand Canyon the specific evidences which he might otherwise blindly overlook.

Or a case from astronomy. The eclipse might be regarded as a "spontaneous case." The astronomer cannot experimentally produce anything one-half so striking. He can, nevertheless, study the laws of motion and of optics, formulate a conception of celestial mechanics and the bending of light rays. The eclipse tells him much about the nature of light and the chemistry of the sun, which leads to new studies in a high-temperature laboratory, from which new laws are formulated; these in turn lead back to new and more insightful perception of the sun.

The "spontaneous cases" in psychical research are like the Canyon or the solar eclipse—not events to be *contrasted* with experiments, but events which permit a glimpse into basic laws which suggest further laboratory analysis. It is probable, of course, that the spontaneous cases represent a

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greater "force" or a higher concentration of "energy" (of what sort we have no inkling at all), permitting an impression to break through even when some of the conditions are not as favorable as they might be. Nevertheless, we should expect in the long run that such cases would happen more often in "favorable" than in "unfavorable" personalities and more often at favorable than at unfavorable moments.

By analysis of a very large mass of material it ought, therefore, to be possible to find out what really is "favorable."

At the same time it is conceivable that we might find out something about the nature of that energy which, in sufficient quantity, breaks through to the percipient, causing him to experience an event which we call paranormal.

Members of the Society will greatly advance our work if they or their friends will send us at this or at any time reports of past or current events that are significant for psychical research. In writing reports on spontaneous occurrences, we shall be grateful if the following questions are kept in mind:

1. Please give a full account of any telepathic or other psychic experience that you have had. Please include date, place, circumstances preceding the experience, your age at the time, and your physical and mental state, etc.
2. Are there persons or documents to corroborate your memory?
3. Please indicate how corroboration can be obtained.
4. Do you know of similar experiences among relatives? Describe as above.
5. Would you be willing to discuss the incident with a member of the Research Committee?
6. Would you be willing to give an hour a week for three weeks to experiments in telepathy?