(This paper was not read before the Institute, but was circulated in proof form).

PRECOCINITION.

By C. A. Richardson, Esq., M.A.

The term "precognition" is used with various shades of meaning, but, for the purposes of this paper, I shall define it in a very general way as the apprehension in some sense or other by an 'observer'—and I use this neutral kind of term deliberately—of an event which is temporally located in his future, or located in the time-system of some other observer or observers at a period correlated with a time in the future of the first observer.

Two main kinds of question arise in a study of precognition. One is the investigation of the empirical evidence for the occurrence of precognition. The other is the consideration of metaphysical reasons which might seem to make the occurrence of precognition possible, and, if possible, likely.

I shall be concerned chiefly with the second of these questions, for the first has already been fairly thoroughly traversed in the light of the facts available to date, and the corresponding records may be consulted.

I will make a brief reference at this point, however, to some of the main sources of the empirical evidence for precognition. In the first place there is the evidence discussed in various parts of the Proceedings of the Society for Psychical Research and in the works of such writers as F. W. H. Myers.* I shall not consider these further here, but there are two more recent pieces of research relevant in this connection which deserve a special word of mention.

The first of these more recent inquiries is the work of J. W. Dunne† which falls into two parts, concerned respectively with a description of the evidence Dunne had accumulated in regard

* See, for example, his article on "Retrocognition and Precognition", in the Proceedings S.P.R. vol. xi, pp. 334-593.
† See An Experiment with Time (A. & C. Black, 1927) and The Serial Universe (Faber & Faber 1934).
to the occurrence of precognition, both in the dreaming and the waking states, and with the presentation of a theory of the nature of time designed to account for the empirical facts.

The nature of the evidence which Dunne describes, and the manner in which it was collected, leave little doubt as to the factual accuracy of the record. Just what is the most likely interpretation of the facts recorded is, of course, another matter. To account for these facts Dunne presents a most ingenious and thought-provoking theory of the nature of time. I have made some comments on this theory elsewhere,* and will only remark here that, in spite of certain suggestive and significant elements in it, I do not find the general principle involved in it by any means convincing.

A second recent investigation, carried out during the past ten years, which has produced evidence relevant to the occurrence of precognition, is that conducted by Dr. S. G. Soal into the question of telepathy. Dr. Soal has described his experiments in papers forming part of the *Proceedings of the S.P.R.*, but a comprehensive though concise account of these experiments and their results has been given by C. D. Broad in *Philosophy*, Vol. XIX, No. 74 (November, 1944).

Very briefly Soal's experiments consisted in the "guessing" by a "percipient" of cards invisible to him but viewed in succession by another person, the "agent". The records were then subjected to the most rigorous statistical analysis, as a result of which it appeared that the odds against the proportion of successful "guesses" obtained with certain percipients and certain agents being due to chance alone, and therefore the odds in favour of the occurrence of some process which might most appropriately be called "telepathy", were enormously high.

That feature of the results, which is especially significant for our present discussion, was that the card guessed by the percipient was generally not that viewed at the moment by the agent, but the card which the agent would view next or next but one, or which the agent had viewed last or last but one. Whether the card mentioned by the percipient was next or next but one was apparently determined by the length of the time interval between the viewing of successive cards by the agent. With an interval of 2 to 3 seconds between "guesses", many "fore-

* See *Happiness, Freedom, and God* (Harrap, 1944), pp. 87f.
hits" one ahead were scored. When the interval was halved, these forehits nearly vanished and were replaced by forehits two ahead. It was also noted that the percipient frequently did not form a mental image which was a replica of what the agent saw on the card, but gave a response closely associated in some way with the latter. Thus, for example, when the agent looked at the picture of an animal, the percipient would write down almost automatically the initial letter of the animal's name. Accordingly Broad concludes that what has been established is "precognition" only in the purely behaviouristic sense of "cognition", i.e., presumably cognition either as represented or as constituted by appropriate overt behaviour on the part of the percipient.

However that may be we clearly have in the results of Soal's experiments evidence which is almost as certain as anything can be of the occurrence of something which can properly be called "precognition", and incidentally also of retrocognition, and the fact that the time-intervals involved were short does not affect the principle.

Taking the results of these experiments in conjunction with the other sources of evidence I have mentioned we cannot but come to the conclusion that, so far as the ascertained facts are concerned, the prima facie case for the occurrence of precognition is very strong indeed. We are then left with the question as to whether there are metaphysical reasons regarding the nature of the universe which would render intelligible to us the occurrence of facts of this kind, and so reinforce the empirical evidence indicating the occurrence of precognition, rather than causation by chance factors, as the true interpretation of the facts.

Precognition may take various forms. In the first place it may take the form of a replica of a future event, that is a sense-experience, or perhaps a particularly vivid image complex which may be difficult to distinguish from a true sense-experience, which is closely similar in essential respects to some future sense-experience. On the other hand precognition may take the form not of a replica of a future event, but of something signifying or symbolising that event, or otherwise closely associated with it. I quoted an example of this kind of thing in connection with Soal's experiments.
On the other hand precognition may in some cases not be an apprehension of a sense-experience at all, but rather of such things as emotions or attitudes of mind. Typical examples of this occur in what are often called “premonitions”, which may vary from more or less vague feelings of uneasiness, depression, or excitement to a rather clearly defined sense of the kind of event which is impending. In all the types of precognition mentioned, it may occur either in the waking or in the sleeping state.

Finally precognition may refer to an event in the observer’s own future or to an event in someone else’s future. In the second case it is evidently closely connected with telepathy, and again we have examples of this (it is true only at short range) in some of Soal’s experiments.

It is perhaps worth considering briefly this question of “short range”. The estimation of lapse of time is largely a relative matter depending both on psychological factors and on physical factors such as the observer’s particular time-scale. Not only will it vary from one human observer to another according to the circumstances of the individual case, but there are also strong general grounds for believing that wide differences of time sense exist between human observers and sub-human sentient beings, and it is to be presumed that similar wide differences would, or could, exist between human and super-human beings, if the latter were to form part of the universe as they may well do. It follows that the important thing is the establishment of the occurrence of precognition in principle. Though a particular example of precognition may appear short-range to the observer or observers concerned, its very occurrence indicates the possibility of the occurrence of other examples of precognition which might seem long-range to the same observers, while it might itself appear long-range to different observers or in different circumstances.

In considering the question of precognition in a metaphysical setting, I should venture to say in the first place that it seems very difficult to make the occurrence of precognition intelligible on any metaphysical theory which regards time as something objective and independent of all observers; and, in the second place, I think it is equally difficult to make precognition intelligible if we regard the analysis of the stream of an observer’s experience into separate, or separable, existentially independent events as anything more than a process necessary and convenient
for thinking about experience. But the difficulties I feel in these respects will, I hope, become apparent in the remainder of this paper.

If for a moment we speak in the usual terms of time, especially in regard to the way in which it appears in current physical science, it seems to me that the fact of telepathy, if it may now be regarded as an established fact, must involve pre-cognition or retro-cognition or (more probably) both. For the theory of relativity shows that there is no absolute sense in which a pair of events, where the two members of the pair occur to different observers, can be said to be simultaneous. Hence if event A, occurring to observer X (the "percipient") is a replica of, though not identical with, event B occurring to another observer Y (the "agent"), event A can never be said to be "simultaneous with" event B. The time component of the invariant interval between A and B will always have a non-zero value, either "past" or "future" in sense, whichever time-system of reckoning is taken, and this is true even though the relative conditions of the two observers may be such that the time-value is small, as will generally be the case in experimental telepathy.

It follows that telepathy implies pre- or retro-cognition, and as, when we are dealing with different observers in this context and not with the same observer, the idea of pre-cognition presents no greater theoretical difficulty than that of retro-cognition, there seems no reason why both should not occur. These considerations are of course quite different in principle from those arising from the evidence for pre-cognition in Soal's experiments on telepathy. In the case of the latter all those concerned were naturally assumed to have a common time-system—and this was obviously very nearly true—and the time-intervals between the observations of agent and precipient were reckoned in this assumed common time-system, and were of an order and a kind different from those I have just been discussing.

In view of all the foregoing it seems to me that precognition is so closely bound up with telepathy—or, as I should prefer to call it, "telecognition"—that any empirical evidence for the latter is equally evidence for the former, while a metaphysical theory which helps to make the occurrence of telepathy intelligible will also apply likewise to precognition.
I think this is true whether the agent cognises something in his own future or in the future of someone else. The second case is clear, and, as regards the first, precognition of events in the agent's own future is really a form of telepathy or telecognition within one individual experience. It is true that the "distance" or "interval" involved is then temporal in character, whereas in ordinary telepathy from one person to another the emphasis is usually placed on spatial separation. But this is not strictly justified for, as I have already pointed out, the relation between the experiences of two different "observers" is never purely spatial but always spatio-temporal, at any rate in the conventional meanings of those terms.

It may be asked whether the occurrence of telecognition of the future implies a rigid determinism. The answer to this question depends on the way in which determinism is conceived. I have dealt with this point elsewhere,* and any adequate discussion of it here is not possible. But briefly I should say that precognition is just one other sign of that interrelatedness of all experience without which reality would not be a cosmos but a chaos, and so indeed hardly consistent with existence at all. On the other hand, if it were held that precognition implies that the agent has no control of the future, I should regard the contention as ill-founded, for clearly there is no logical contradiction in the agent's precognising a future which is, to some extent, controlled by him. In other words, he may cognise a future the nature of which will have been partly fashioned by his own activity.

This brings me to the essence of the metaphysical question. I have tried to show the close interdependence of precognition and telepathy, and to suggest that the former is a particular case of the spatiotemporal interrelationships both within the experience of one individual and between the experiences of different individuals, of which telepathy in the widest sense is the general manifestation. The question then is to determine those features of a metaphysical theory of the structure of reality, which will render intelligible the occurrences of telepathy both in its general and in its more special manifestations.

It seems to me that the salient facts here are the unity of the individual experience and the organic interrelatedness of the

* See *Spiritual Pluralism*, Chapter IV, and *Happiness, Freedom, and God*, Chapter IV.
experiences of different individuals at all levels, which are facts. I would suggest, partly of direct apprehension and partly of an inferential belief without which experience is unintelligible. In brief, telepathy and precognition arise from the unity of reality and the necessary consequence that every individual is to some degree and in some way en rapport with every other individual.

Now, in the case of those who are, in the conventional spatio-temporal sense, “near” to us, this rapport is a matter of immediate apprehension which is the basis of normal human intercourse and of our dealings with the realm of “animate” and “inanimate” Nature at large. But, if it be true that each individual is en rapport with all others, how is this manifested in the case of individuals who, spatio-temporally, are greatly “distant” from one another?

I am inclined to think—and the idea has been mooted in one form or another before—that the answer to this question is to be found in the phenomena of the sub-conscious. By the “sub-conscious” I mean that mass of images, feelings, and so on, which normally lie below the threshold of consciousness, but which do on occasion rise above that threshold without, in general, any special voluntary procedure on the part of the individual concerned (though the manifestations may in certain circumstances be helped by such procedure) and without the application to him of any special technique. It is to be carefully distinguished from the “unconscious”, which consists of those emotionally toned constellations of memories and ideas which are suppressed from consciousness, and can be brought to consciousness only by the use of a highly specialized technique involving, in general, treatment of the individual concerned by a skilled psychiatrist.

I should say, then, that the conscious and sub-conscious together—and they merge into one another—constitute the field of apprehension by the individual of his interrelatedness—indeed I think “interaction” is a quite appropriate term here—with all other individuals in the universe, and that, whether an effect is conscious or subconscious and, if the latter, whether it passes over into consciousness, are matters depending on the factors in the particular case, one salient factor being the spatio-temporal relationships involved.

It would not be in place here to discuss the various types of phenomena in which subconscious relationships and activities
are concerned or the particular conditions favourable to their occurrence, though I have attempted this elsewhere.*

But certain general considerations suggest themselves. For example, in the individual’s precognition of his own future it is the essential unity of the individual experience which is presumably involved. As a result of this unity the whole experience of the individual will be in some way inherent in what, in analytical thinking, we regard as the “parts” of that experience. This concept of the inherence of the whole experience in its parts is the analytical symbol corresponding to what, in concrete fact, is the indivisible unity of experience, and here the merging of conscious and subconscious will be fundamentally involved.

Perhaps the prime observable example of this particular relationship of whole and parts is provided by memory experiences in which we evidently have an inherence of the “past” in the “present”. We should also expect some evidence of the inherence of the “future” in the “present”. But no doubt it will at once be asked why examples of precognition are relatively so fragmentary and uncertain as compared with the definite and regular nature of memory processes.

Stated in such a form I doubt if that question is really significant, for we are here dealing with ultimate facts. The characteristics of telecognition vary with the parts of experience concerned, and this variation is a main factor in distinguishing that part of the individual experience which is “past” from that part which is “future”. To inquire then as to why there should be such striking differences between precognition and retro-cognition is rather like asking why there should be a “past” and a “future” at all.

Summing up then, we may regard the conscious and the present as coterminous, or, alternatively, we might perhaps say that the conscious is the “field” of the spatio-temporal present; for evidently the conscious is always present, while nothing is present to us in experience (in any appropriate meaning of “present”) of which we are not conscious. The sub-conscious is then the field of the inherence in experience of events which are past or future, the conscious and subconscious together

* See Spiritual Pluralism, Chap VIII, and The Supremacy of Spirit, Chaps. V and VI.
constituting the field of the interrelatedness both of the parts of the whole experience of the individual concerned, and of that experience with the experiences of others.

I suggest that some such metaphysical theory as I have outlined is required to order in an intelligible manner the combination of plurality and diversity in unity which we apprehend in experience; and that, if we adopt such an hypothesis on these general grounds, the substantiated facts in regard to telepathy, and the closely associated phenomena of precognition and retrocognition, fall readily into place.

The particular conditions in which these phenomena occur, and the way in which they vary, are matters for observation and experiment according to the methods of the empirical sciences. A number of interesting points crop up which can only be briefly mentioned here. For instance, it has, I think, sometimes been held that we do not cognise a definite future, but only a probable future, perhaps those future events which have, at a given present, maximum probability. Again, in the opinion of some there is a common field of subconsciousness and not a number of distinct individual fields. There is, too, some evidence that in certain cases there is a kind of "time-lag" in the subconscious in the operation of the process of telecognition. There is also evidence that the occurrence of telepathy depends in part on the kind of relations existing between the individuals concerned, especially emotional relations. Finally, it has been suggested that there may be two kinds of telepathy, one operating through the medium of the subconscious in the way that we have been considering, the other having a physical basis in the form of radiations from the brain analogous to the electro-magnetic radiations which make radio communication possible. That telepathy is not always, and perhaps not usually, physical in basis seems to follow from evidence which shows that its effects are not modified by distance in the way that the effects of electro-magnetic radiation are modified. But this does not rule out the possibility of something in the nature of "brain-waves". Presumably the intensity of such waves would vary with the distances involved, and observation of the occurrence of forms of telecognition depending on distance—remembering that "distance" is spatio-temporal and not purely spatial—would provide the strongest kind of evidence for the existence of "brain-waves".
The precise determination of the facts in regard to the particular points I have just mentioned must await further experiment. Such experiment is likely to develop more rapidly now that it is no longer regarded in certain nominally "scientific" circles as hardly respectable even to entertain the idea that such phenomena as telepathy and precognition may possibly occur. But in this paper I have been concerned for the most part simply to suggest that one result of a metaphysical theory arrived at on general grounds would be, not only to show that the occurrence of the various forms of telecognition are possible and intelligible, but that it would be really surprising if they did not occur.

WRITTEN COMMUNICATIONS.

Dr. R. E. D. Clark wrote: I have found Mr. Richardson's paper exceedingly difficult to follow. He appears to be asserting that events are inter-related but it is not at all obvious to me how this explains, or even helps us to understand, the existence of precognition. It seems strange that in a paper on this subject no mention is made of W. W. Carlington's recent book Telepathy. Could Mr. Richardson be induced to explain his theory more simply by contrasting it with Carlington's views?

By an appeal to relativity Mr. Richardson attempts to show that "telepathy... must involve precognition or retrocognition." The argument is difficult to follow. There is no metaphysical difficulty about asserting that two events are simultaneous. Relativity asserts that it is impossible to devise a practical test of simultaneity, not that simultaneity is non-existent. The impossibility of devising such a test arises, of course, from the fact that light travels at a finite speed and that no means of communication known to physics travels with a velocity greater than that of light. But we know nothing at all about the velocity with which information is transmitted by means of telepathy. The velocity may be finite for all we know or it may be greater or less than that of light. In view of our complete ignorance on such matters it is very difficult to see why Mr. Richardson introduces relativity at all. In using the language of relativity (e.g., "distance is spatio-
temporal and not purely spatial”) he apparently implies that telepathy travels with the speed of light but he does not tell us why he holds this view.

Mr. W. E. Leslie wrote: While this Paper has interest because of the light it may throw on the nature of Prophecy, its primary value is philosophic because of its bearing on the relation of Persons to Space-Time and to each other.

In a Paper on Telepathy read before the Institute in 1924, I suggested that minds were in some sense in contact with each other apart from Space-Time, and suggested that this might throw light upon apparently well-authenticated cases of prevision. Now prevision, or, to use the present phrase, precognition seems fairly based upon experimental evidence.

We seem now to be touching an aspect of Reality which our minds, conditioned by our practical contact with Space-Time, have great difficulty in grasping. In any case the old categories of mechanistic materialism are hopelessly out of court, and it seems a pity that the author should have toyed with the idea of “Brain-Waves.” After discussing the theory in the Proceedings of the Society for Psychical Research, Mr. Whately Carrington says “Frankly if it were not for the currency the notion has gained in the popular mind, I would not consider any radiative theory worth powder and shot, or even the small amount of space I have felt necessary to devote to it here.” (XLVII, p. 171.)

Mr. John Evenden wrote: An important difficulty in the development of any metaphysical theory is that its nature makes it hard to either substantiate or overthrow. In his fascinating and thought-provoking paper the author has wisely made no extravagant claims for his theory, and has allowed for possible substantiation and modification. The following comments might be found useful.

The paradox to be met in a theory on this subject is firstly that it must allow three observations about the nature of time: (1) That the past is irretrievable, (2) that there is a probability or free will element in the future (I speak as a Christian, hence ruling out determinism), and (3) the inevitability of the progression of the
present; whilst secondly the unity of spatio-temporal experience must be taken into account. The Author has met this paradox in his paper which he bases on the unity of experience but there is also the possibility of basing the metaphysic on the other aspect of the paradox, and having (if possible) explained telecognition and precognition, bridging the gap to the unity of experience, with the aid of these phenomena. It is a problem of which end to start from. I have for some time been working on the second type of theory, but would not care to claim that it is superior to the author's, and see no easy way of resolving this problem.

In establishing the unity of experience it should be useful to study the work of psychologists on the "specious present," to which no reference is made in this paper. References to this work can be found in the bibliography in M. F. Cleugh's book _Time_.

The analysis given of relativity and telecognition appears to afford two further possibilities of great interest, making three in all. They are: (1) That telecognition is subject to the laws of space, that is, it can be associated with a velocity, c, whilst not being necessarily a wave motion; thus meeting "the possibility of something in the nature of brain-waves" mentioned in the penultimate paragraph of the paper. (2) The statement given in the paper. (3) That telepathy is independent of physical laws, and hence provides a criterion of instantaneity that physical signals can never provide. This reinstates instantaneity by introducing a new criterion, and seems a more convincing statement than (2). Strictly, possibility (2) is independent of (1), but if (1) is correct the nature of telecognition is no more bound up with precognition than is any other sort of physical signal. However, these possibilities seem at present to be only of academic interest.
"AND THE EARTH WAS WITHOUT FORM AND VOID."

In arranging for the publication of these papers on this subject, the Council of the Institute was asked if the scope of the papers and the discussion could be limited to the elucidation of the precise meaning of the Hebrew grammatical construction and words of Genesis i, 2, explicitly excluding all scientific aspects of the problem which could not adequately be discussed on this occasion. The aim of the papers being to obtain a conspectus of linguistic arguments for or against different renderings.

It will however be observed that the rule stated above has been transgressed in some instances, and in fairness to those who have observed the rule, any such transgression should not be considered part of the proceedings.

"AND THE EARTH WAS WITHOUT FORM AND VOID."

An enquiry into the exact meaning of Genesis I, 2.

By P. W. Heward.

The suggestion that this verse unveils a condition when the earth "became" thus, as distinct from God's creation in verse 1, demands reverent and prayerful care, in translation and comparison.

(a) What would appear to be the meaning and implication of each word?

(b) If two renderings seem possible, do the context and language elsewhere clarify?