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Field Theory and Survival

GARDNER MURPHY

In the January and April issues of this JOURNAL an attempt was made to sketch some of the more cogent evidences for survival¹ and some of the difficulties² which appear to confront the survival hypothesis. It was felt that these opposed approaches to the survival problem might be of some interest and might stimulate constructive criticism; judging by the correspondence published,³ and the many comments received, it seems fair to conclude that this purpose has in some degree been fulfilled. It will be recalled, however, that the conclusion was reached at the end of the second article that there may be something wrong with the way in which the survival problem is ordinarily approached, and a promise was made to suggest other ways of formulating the issue. The present article is an effort to fulfill this obligation. Like the foregoing papers, however, it will

¹ "An Outline of Survival Evidence," by Gardner Murphy, JOURNAL A.S.P.R., Vol. XXXIX, January, 1945, pp. 2-34.

² "Difficulties Confronting the Survival Hypothesis," by Gardner Murphy, JOURNAL A.S.P.R., Vol. XXXIX, April, 1945, pp. 67-94.

³ "Correspondence on 'Difficulties Confronting the Survival Hypothesis,'" JOURNAL A.S.P.R., Vol. XXXIX, July, 1945, pp. 160-172.

assume a tentative and groping form; and criticisms will be most welcome.

Evolution and the Paranormal

Believing that the longest way around may be the shortest way home, it has seemed to many students of psychical research that before searching for final answers to ultimate questions we need to explore very fully the nature and the origin of human paranormal powers. These are the first problems to attack if a really adequate basis is to be established upon which to build any specific theory. Putting aside preconceptions and looking steadily at the living organism, perhaps the most extraordinary thing about it is its possession of two fundamentally different kinds of abilities for adaptation to its environment. Most of the time it responds to objects from which energies radiate and impinge upon it—light waves, sound waves, etc. These, as physical energy-sources, buffet its sense organs, and through a well-defined action system lead it to behave in ways more or less appropriate to its survival needs. It would probably be no exaggeration to say that 99.99 percent of the time it responds to objects from which physical energies are being received, just as do non-living things. Thus the action of the retina involves a photochemical process, somewhat like that which takes place on a photographic plate. Living things select and organize these energies in their own way, as when a child interprets its mother's smile in terms of its experience; but to do so there must first be the physical energy of the light wave. What has come to be called experimental biology deals very largely today with the physical and chemical energy systems of the organism, and year by year such systems seem less and less different from the systems known generally to all physics and chemistry. To give a single example, viruses act like living things, but recent research shows that they often take the form of crystals. They can rapidly increase their quantity when in a favorable medium, as if "reproducing."

Occasionally, however, the living organism makes con-

tact with events in a way which, as far as we know, involves no transmission of physical energies (in any ordinary use of the term "physical") between the object and itself; somehow it reaches out to portions of space remote from it. These events are called telepathic, clairvoyant, etc. Occasionally, also, the organism makes some sort of contact, we know not how, with future events (precognition) and apparently also with past events (retrocognition) in a way not involving the impact of physical energies. Neither biology nor physics as systems of knowledge can readily find a place for such contact with events at a time other than the present. For the theory to be developed here it is important to make clear that animals below the human level of complexity seem to participate to some degree in these powers, which are inherent, as far as we know, in life, not simply in human life.

Now from the evolutionary point of view these powers are altogether extraordinary. Evolution has in general proceeded in accordance with physico-chemical principles, and here we have something at work outside the physico-chemical system as we know it. Moreover, such powers, whenever they manifest themselves, are not "flukes"; they obviously perform an important function in bringing the organism into contact with things related to its needs, and on a Darwinian basis we should expect those organisms which possess such gifts to survive and reproduce their kind more effectively than those which lack them. We should expect, therefore, on a Darwinian basis, to find a rapid magnification of these abilities. The point has often been made, as, for example, recently by Thouless,⁴ that these powers are in some measure outgrown by organisms which find another method—namely, the physical method—more effective. The logic of this point, however, seems hard to follow. For paranormal powers, though less common, appear, as we have encountered them in research, to be no less specific,

⁴ Presidential Address to the Society for Psychical Research: "The Present Position of Experimental Research into Telepathy and Related Phenomena," by Robert H. Thouless, *Proc. S.P.R.*, Vol. XLVII (1942), pp. 1-19.

no less effective in making adjustments to life, than the powers of the senses; they bring us real information about real events. There may be paranormal powers which are biologically superfluous, but our only knowledge of the paranormal lies in a definite correspondence of impressions with facts relevant to the life of the individual organism. How can the senses do more than this, or serve life better? Suppose a deer is about to drink from a spring and a lion approaches. Can it be denied that a deer with a paranormal awareness of the lion's approach would benefit, speaking in the Darwinian manner; and that deer should, on this basis, be expected to develop more and more of the "psi" (ESP) ability? But these powers are in most cases rudimentary, at least among creatures below the level of man. They constitute a profound biological enigma.

Another way of stating the biological problem of the paranormal is to say that the closed system of the time-space-energy contact which the organism makes with its environment is somewhat leaky; that impressions which do not "belong" slip through into the physical system. Experimental work in human paranormal abilities directly reveals what is meant by the word "leaky." A subject taking part in an ESP experiment calls a series of cards in a casual mood; not, as far as the experimenter can see, especially strongly motivated nor in any peculiar mental or bodily state. Suddenly, however, the subject begins to *call correctly* and maintains the successful streak until a fantastically high score is attained—not just a score which is one of the ordinary variations which theory of probability leads us to expect, but a score which one would not expect, on a chance basis, to encounter in a lifetime. Then, having proved itself, having had its fling, the odd capacity departs, and scoring goes back again to its former humdrum level.⁵

⁵ To illustrate, we might refer to the case of Miss L. L., a Hunter College student, who took part in an ESP experiment conducted at the A.S.P.R. in the Spring of 1943. This subject at her first sitting obtained a score of seventeen correct guesses out of twenty-five, the first fifteen cards of the deck being correct. Miss L. L. gave no evidence of being "especially strongly motivated." In further experimentation Miss L. L.'s scores were of a chance nature. See *JOURNAL A.S.P.R.*, Vol. XXXVII, July, 1943, pp. 116-117.

But behind these apparently capricious expressions of a power beyond the ordinary, there is good reason to believe that there exists a *deeper level of function*, a level at which, perhaps, the paranormal is the normal. Research has more and more encouraged the view that these "capricious" episodes are merely the occasional flashes thrown into consciousness by an enduring capacity which, in the depths of the organism, may indeed be in contact with all of space and with all of time. The suggestion is that there are two ways of functioning, two systems of life activity; the time-and-space way of functioning is just one of the ways in which life manifests itself. There may of course be still others, perhaps even a continuum between these two which are contrasted. Some of the laws which apply in paranormal perception—laws relating, for example, to the role of motivation and to the most effective ways of grouping material to be perceived—appear to apply generally to all perception.⁶ But it does not appear to be fruitful to melt down the distinction as it appears today between those processes which use known physical energies to make contact with the environment and those which appear to make contact more directly.

The Interpersonal

Now, if we look closely, we find another—and perhaps deeper—respect in which the paranormal violates our usual habits of thought; and this, I think, has been rather neglected in recent years. Paranormal events appear to depend not simply upon the powers of individuals but upon powers set free by the *relations between persons*; they are interpersonal. The awareness of sharp separation from one's fellows, and the distinctiveness of individual ego and purpose are often attenuated in states which appear to be conducive to the paranormal; states, for example, of relaxation so profound that one finds one's awareness of self pushed away from the center to the fringe of consciousness or

⁶ "Position Effects as Psychological Phenomena," by Gertrude Raffel Schmeidler, *Journal of Parapsychology*, Vol. VIII, June, 1944, pp. 110-123.

almost completely extirpated. It is not maintained that loss of self-awareness is complete; the point is simply that it is greatly reduced. The practical cultivation of these states in the Far East, and among oracles and seers in classical antiquity, is paralleled by the development of crystal gazing and trance practices in Europe and America. Now these states seem to have been cultivated in these many different cultural situations partly because often they actually do help the paranormal to appear. In another paper⁷ an effort was made to show that profound relaxation permitting complete absorption in a task, with minimal attention to self, may be a favorable state for telepathy. There is much to suggest some real basis in fact for the ancient belief that loss of sharp awareness of self may actually bring one into paranormal contact with one's fellows—just as it may sometimes do normally, and without reference to a paranormal factor.

In a sense this seems to mean that we can be closer to one another at a level of psychical functioning which is deeper, more stable, than ordinary awareness. Myers⁸ struggled with this problem in his effort to show how the subliminal of one may merge with that of another. Warcollier⁹ made an effort to portray the intercommunication of individuals at a subconscious level, and Mrs. Sidgwick¹⁰, perhaps most clearly of all, undertook to show that paranormal processes are best understood if we give up the idea of transmission

⁷ "Concentration Versus Relaxation in Relation to Telepathy," by Gardner Murphy and L. A. Dale, *JOURNAL A.S.P.R.*, Vol. XXXVII, January, 1943, pp. 2-15.

⁸ *Human Personality and its Survival of Bodily Death*, by F. W. H. Myers, Longmans, Green, and Co., New York and London, 1903. See especially Vol. I, Chapter VI, "Sensory Automatism."

⁹ *Experimental Telepathy*, by René Warcollier, Boston Society for Psychical Research, 1938.

¹⁰ "Phantasms of the Living: An Examination and Analysis of Cases of Telepathy between Living Persons . . ." by Mrs. Henry Sidgwick, *Proc. S.P.R.*, Vol. XXXIII (1923), pp. 23-429. See especially pp. 419 following. In speaking here of reciprocal dreams, Mrs. Sidgwick says, "Dream cases though they be, I am disposed to regard [them] . . . as the fullest manifestation we have in the collection of telepathic communication. In other words, I think the kind of union of minds, the thinking and feeling together, here shown may be regarded as the type or norm of telepathic communication to which all other cases conform in varying degrees."

from one mind to another and speak simply of the fusion of agents' and percipients' ideas. (Whately Carington's recent theory¹¹ has much in common with this view, but for the present I should rather cling to the conception of the loss of sharply defined individuality, the interpersonal nature of the mental operations during those activities which we call paranormal.) Two individuals seem to become psychically one—or indeed in some cases there appears to be a group of three or more individuals who somehow, while remaining themselves, yet become a single psychical entity. We in the West deeply fear, and indeed resent, this approach, for our individualism in all its phases dreads any loss of self-awareness—just as many persons dread to lose consciousness under ether, or to be hypnotized. Actually, however, this approach, long cultivated in the East, has forced its way into recognition in psychical research simply because the evidence seems to permit no other valid interpretation.

But whereas the *spontaneous* cases are very likely to occur in relaxed states where the ego is ill defined—with many examples of reciprocal and collective experiences¹²—the *experimental* instances often show us a tense individual competing strenuously with other individuals, consciousness of self seeming to be at a high level. Is there a contradiction here? We cannot answer with confidence, for we do not know what is really happening to self-consciousness in such states, nor what the altered self-consciousness may be doing to the deeper levels of activity. Perhaps there are some kinds of self-awareness that make one psychically closer to another person and some self-absorbed states which are favorable because they free one of one's fears. At any rate, there is an interpersonal factor to be noticed in passing. If one looks closely at what a successful subject in an experiment is doing, one often finds, I believe, that he has

¹¹ "Experiments on the Paranormal Cognition of Drawings, IV. Section B: A Theory of Paranormal Cognition and Allied Phenomena," by Whately Carington, *Proc. S.P.R.*, Vol. XLVII (1944), pp. 155-228.

¹² "Visions and Apparitions, Collectively and Reciprocally Perceived," by Hornell and Ella B. Hart, *Proc. S.P.R.*, Vol. XLI (1932-33), pp. 205-249.

"identified with" the experimenter or with the other persons taking part; if so, he has achieved some degree of interpersonal function. And experimental results are what we should expect. The Duke laboratory has given us evidence that paranormal scores may run high with one experimenter, and at a lower level with another, the same precautions being taken.¹³ B. S., subject in the notable Soal-Goldney¹⁴ experiments in precognitive telepathy, obtained highly significant results with three agents, but failed to score above chance when working with ten other agents; that is, only three out of thirteen individuals were able to influence him paranormally. Whately Carington¹⁵ has repeatedly been able to obtain results by his own method, while our A.S.P.R. group of investigators, following essentially the same procedure, could not.¹⁶ Dr. Gertrude R. Schmeidler¹⁷ has now repeatedly obtained significant results which the reader may compare and contrast with the results of one of our own experiments (designed especially to test the theory of the "Midas touch"), in which, since our subjects were virtually all "sheep" (believers in the possibility of paranormal experience), a positive result might have been expected.¹⁸ The fact seems to be that throughout psychical research the personality of the experimenter plays a significant role. One reason for this is that subjects identify with some experimenters and not with

¹³ "The Experimenter-Subject Relationship in Tests for ESP," by J. G. Pratt and Margaret Price, *Journal of Parapsychology*, Vol. II, June, 1938, pp. 205-249. It is true that in this research the hitherto "unsuccessful" experimenter, by changing his psychological approach, was able to raise his subjects' scoring level. But this may have been because the subjects were then able to identify with him.

¹⁴ "Experiments in Precognitive Telepathy," by S. G. Soal and K. M. Goldney, *Proc. S.P.R.*, Vol. XLVII (1943), pp. 21-150.

¹⁵ "Experiments on the Paranormal Cognition of Drawings, III: Steps in the Development of a Repeatable Technique," by Whately Carington, *Proc. A.S.P.R.*, Vol. XXIV, January, 1944.

¹⁶ "American Experiments on the Paranormal Cognition of Drawings," by Ernest Taves, Gardner Murphy, and L. A. Dale, *JOURNAL A.S.P.R.*, Vol. XXXIX, July, 1945, pp. 144-150.

¹⁷ "Separating the Sheep from the Goats," by Gertrude Raffel Schmeidler, *JOURNAL A.S.P.R.*, Vol. XXXIX, January, 1945, pp. 47-49.

¹⁸ "Research Notes: A Short Report on a Series of Exploratory Studies," by L. A. Dale, Ernest Taves, and Gardner Murphy, *JOURNAL A.S.P.R.*, Vol. XXXVIII, July, 1944, pp. 160-170.

others; but a number of other interpersonal factors are probably involved.

The argument is, of course, fragmentary and suggestive only; it is offered tentatively, and as an hypothesis. But looking back over the history of the last seventy years, there seems reason to believe that the subject-experimenter relationship is connected with the fact that subjects do, under certain circumstances, reflect paranormal capacities which are expressions of a particular interpersonal situation and do not occur elsewhere. It is entirely likely that we are dealing here with something analogous to the cases of collective veridical hallucinations, in which perhaps a group of persons merge their individuality, at a deep level, in observing the same apparition, on the basis of the capacity of one of those present to identify with a loved person who is at the time dying, or who has just died. It is, of course, *not* asserted that the loss of the sense of individuality is complete. The term can be taken in its rough, everyday sense. As, for example, the mother identifies with the child which is going through an ordeal, or the wife with the distant husband facing unknown dangers, and becomes more likely to receive from the distant loved one a telepathic impression, so the child or husband in turn becomes more likely at the same moment to make contact with the mother or wife. Many *normal* insights are facilitated by this type of identification; so also the *paranormal* types of awareness. A very striking and well-evidenced case from *Human Personality*¹⁹ will serve to illustrate the point:

In October of 1863 Mr. Wilmot sailed from Liverpool bound for New York. For eight days a storm had raged. Towards morning of the ninth day, during a "refreshing sleep," Mr. Wilmot vividly dreamed that he saw his wife (then in the United States), clad in her nightgown, come to the door of his stateroom, which he shared with a Mr. Tait. The apparition seemed to become aware that someone was occupying the upper berth. Finally she approached Mr. Wilmot, stooped down, and kissed him. Next morning Mr. Tait said that, while wide awake, he had seen a lady enter the cabin and caress Mr.

¹⁹ Vol. I, pp. 683-685.

Wilmot. Apparently Mr. Tait believed that a flesh-and-blood woman had actually entered the stateroom.

Almost immediately upon reunion with his wife in America, Mr. Wilmot learned that she believed she had paid him a visit on the night in question. She explained that on account of the severity of the weather she had been very much worried about him; about four o'clock in the morning she seemed to go out to seek her husband. Finally she came to a low, black steamship, whose side she went up, then descended to the main cabin, and thence through the stern until she came to her husband's stateroom. In it she saw a strange man looking at her, felt disturbed at his presence, but bent down and kissed her husband before going away. The description which Mrs. Wilmot gave of the steamship, and of her husband's stateroom, was correct in every particular, although she had never seen it.

The point we wish to insist upon is not that selfhood disappears, but that one thing which prevents paranormal contact is our *psychological insulation* one from another. Though we know extremely little about this, there is evidence that this insulation can in varying degree be removed.²⁰ It is likely, in fact, that the frequency of collective veridical impressions arises from a sort of "induction effect"—a fusing or merging process by which two or more persons, sharing to some degree the same experience, act to make contact with a distant event more easily than could one of them alone. This, it will be recalled, is more like Gurney's²¹ theory of collective apparitions than like Myers'; but instead of believing that one person perceives paranormally and transmits the impression to the others, we should be inclined to believe that the very fact that there is a group having much in common makes the likelihood of their experiencing a veridical impression so much the greater. We shall, of course, be told here not to resort to analogies. The term "induction," or "field," or "fusion" is, of course, a mere groping gesture to define a process only dimly glimpsed; but the whole language of such matters

²⁰ "Removal of Impediments to the Paranormal," by Gardner Murphy, *JOURNAL A.S.P.R.*, Vol. XXXVIII, January, 1944, pp. 2-23.

²¹ *Phantasms of the Living*, by E. Gurney, F. W. H. Myers, and F. Podmore, Trübner and Co., London, 1886.

has to be based on analogies, which can only be put aside when our knowledge is far more exact.

The Time Dimension

So far we have considered chiefly the interpersonal nature of the telepathic and clairvoyant processes. Suppose now we extend the hypothesis to relate to the future and to the past. The present hypothesis would assert that there is no barrier against traveling to a future point or to a past point (we cannot here enter into a theoretical discussion of time), provided that individuality is not completely absorbed in the physical or biological present. The fact that such a large number of precognitive cases appear in dreams (compare Dunne²²) would probably be paralleled by an equally large number of dream contacts with the past (retro-cognition) if we had given equal attention to the study of such cases. (We refer here not to telepathic contact with memory streams of living or deceased personalities, but to actual perception of past events in exactly the same way in which one makes contact with future events.) The hypothesis now suggested would say with regard to the Moberly-Jourdain *Adventure*²³ that these women may well have glimpsed directly some events which had taken place in Marie Antoinette's garden over a hundred years earlier; in connection with the "interpersonal," is it entirely accidental that this extraordinary experience, in its most striking aspects, was *shared* by two persons? Our hypothesis would also say that many of the cases of so-called "deferred impressions," where there is a long interval between death and apparition, are due not to any deferment but to retro-cognitive contact with the tragic episode itself.

There are several other types of experiences for which retro-cognition seems a reasonable working hypothesis. In the case of collectively experienced apparitions of animals, for example, seen in the haunts where once they lived, it

²² *An Experiment with Time*, by J. W. Dunne, Macmillan Co., New York, 1927.

²³ See "Time and the Trianon," this issue, pp. 216-234.

may be easier for some to believe that the human observers made contact with the past than to take any other view of the matter. A well-corroborated case of this sort was presented in the *Proceedings* of the S.P.R.²⁴ It concerned the apparition of a cat which was seen by four people:

Miss H. G. had a favorite cat, Smoky, a pure-bred blue Persian of peculiar shade. There was no other cat in the neighborhood that was in the least like her. Shortly before her death in June, 1909, Smoky had become lame as a result of an altercation with a dog. Miss H. G. was not sentimental about animals, and, although fond of Smoky, did not grieve unduly over her death. One day in July Miss H. G. looked out of the window and saw Smoky, looking very ill, limping across the grass. She called her sister, Miss B. G., who also saw the cat. One sister ran outside after the cat while the other remained at the window and saw Smoky disappear into the shrubs. About ten minutes later Miss H. G. and a friend living with the family saw Smoky again, going through a hedge in front of the window. Miss H. G. went out after her, but could not find her. Half an hour after this, a servant saw the cat in the kitchen passage. She ran to get her some milk, but the cat walked away, and from that moment on disappeared completely. The percipients began to think that there had been some mistake about Smoky's death; the gardener, therefore, dug up the body. The neighbors were questioned, but no one had seen Smoky, or any other cat like her.

The ordinary procedure of science at this point would appear to be one of hesitation to draw large conclusions, while probing and investigating in the fullest possible way all these telepathic, clairvoyant, precognitive, and retrocognitive powers. Hypotheses should be bold, but methods of verification cautious. It is the present hypothesis that these various powers are not solely derived from the psychological make-up of individuals; that they depend in some degree upon interpersonal relations—indeed, that such interpersonal powers are much richer and more complex than any possessed by the individual when isolated from his fellows. When a group of individuals functioning as an interpersonal entity is involved, they may have really extraordinary capacity to make contact with phases of reality which transcend time and space.

²⁴ *Proc. S.P.R.*, Vol. XXXIII (1923), pp. 381-387.

Mrs. Sidgwick²⁵ made a first approach to a similar interpretation of hauntings over fifty years ago. The Carington²⁶ theory of hauntings resembles the present theory, but we need have no ideas functioning as independent units, out of a context; we have ideas anchored in the past, but accessible to the present retrocognitive powers of the living.

From the present viewpoint, most mediumistic phenomena also fall into order. The sitter and the mediumistic consciousness are focused upon a deceased individual, and constitute a team or center of induction in the sense described earlier. An explanation must be found for the fact that there are good sitters and poor sitters; and here we have Mrs. Sidgwick's suggestion²⁷ that the subconscious make-up of the sitter may permit or fail to permit paranormal material to come through the sitter to the medium. This way of thinking is crudely represented in Figure 1.

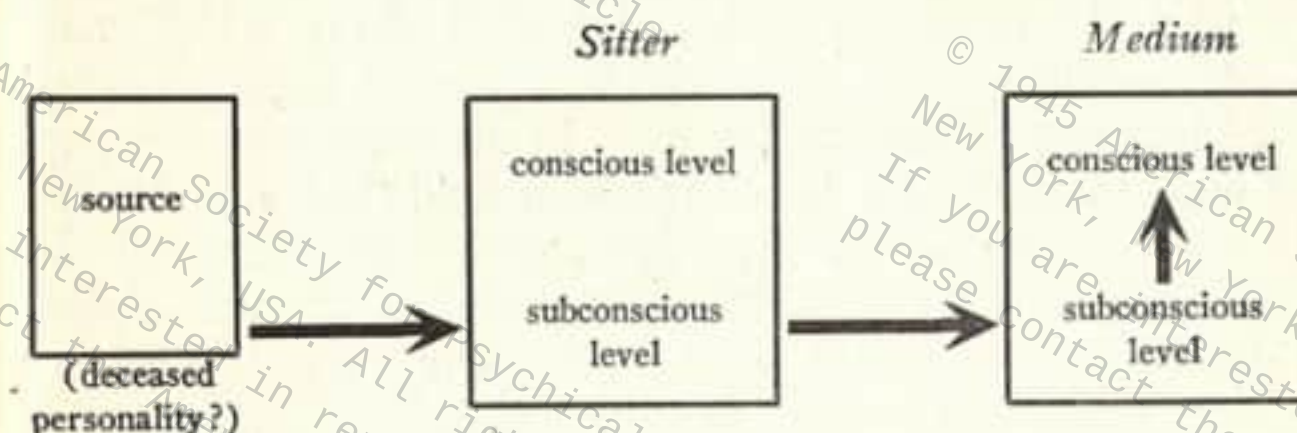


FIG. 1.

In the proxy cases, again, there is much to suggest that a sitter and a note-taker are both important. The theoretical possibilities of the Sidgwick theory are suggested in Figure 2.

But the figures are too static, and the flow is not necessarily in one direction. The present theory would state that all these entities interact.

²⁵ "Notes on the Evidence, Collected by the Society, for Phantasms of the Dead," by Mrs. Henry Sidgwick, *Proc. S.P.R.*, Vol. III (1885), pp. 69-150.

²⁶ See reference II, especially pp. 208-209.

²⁷ "Discussion of the Trance Phenomena of Mrs. Piper," by Mrs. Henry Sidgwick, *Proc. S.P.R.*, Vol. XV (1900-01), pp. 16-38.

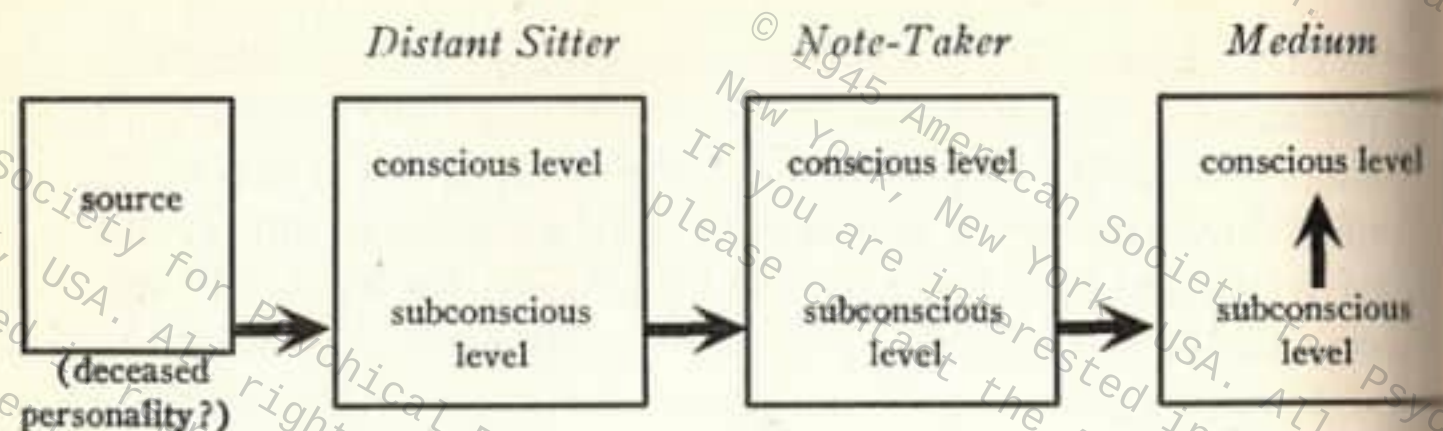


FIG. 2.

The Development of Field Theory

So far, an attempt has been made to show that paranormal phenomena may express something other than the sharply defined and individualistic aspects of human personality; they appear to express a kind of reality which, as far as our own limping words can describe it, is "interpersonal." Now it happens that this way of thinking has a great deal in common with a way of thinking which characterizes much of modern science, a way of thinking called "field theory." I should like now, in the most tentative sort of way, to outline the implications of field theory, and when this is done, to see how far they agree with the sketch we have just been drawing. The reader may recall a somewhat similar venture carried out by Margaret Pegram Reeves²⁸ in this JOURNAL; but the present outline deals not so much with the topological developments which interested Mrs. Reeves as with the broader foundations of field theory.

When, during the latter part of the nineteenth century, the study of electromagnetism had advanced sufficiently to permit Clerk-Maxwell to formulate mathematically the nature of electromagnetic waves, it proved possible to envision electromagnetic activity as a distribution of energy in space and time; this distribution, conceived as a unitary structural whole, is a "field." Instead of proceeding (as classical physics had done) to study elementary particles and to record big events as summations of little events, it

became possible to approach directly the structure, or form of organization, of the energy distribution. Indeed, as Einstein and Infeld have put the matter in *The Evolution of Physics*,²⁹ the entire classical attempt to work from parts to wholes broke down in relation to many fundamental problems. The traditional analytical method of working proved to be insufficient. Field theory—the theory of the structure and organization of distributions of energy—found itself free to develop without primary concern for ingredient parts of any sort. Knowledge of what one particle alone is doing, added to a knowledge of what another particle is doing, will not in any way predict what will happen in the total interaction. In fact, it is an embarrassment and an obstruction of research if we try to explain the laws of such interaction in terms of the dynamics applicable to single parts. The structural whole is not the sum of the parts, and the attempt to state its problems in terms of parts confuses the issue.

It likewise became evident in the biological sciences early in the present century that the field manner of thinking was of value, because a fundamental unity of nature began to appear in which the laws of physics and the laws of biology proved to have many formal similarities. An effort was made in embryology, notably by Spemann,³⁰ to show the operation of the field principle during embryonic growth. In his fascinating experiments, tiny loops were passed over the various microscopically observed regions on the surfaces of an embryo, and the material removed from the embryo and then transplanted immediately to another embryo. By this and other methods it was possible to show what happens to the same kind of tissue when it grows in several different environments—an environment provided by the first body, an environment provided by the body of another embryo to which it has been transplanted, and the environment of a test tube. The result was to show that the

²⁹ Simon and Schuster, New York, 1938.

³⁰ *Embryonic Development and Induction*, by Hans Spemann, Yale University Press, New Haven, 1938.

²⁸ "A Topological Approach to Parapsychology," by Margaret Pegram Reeves, JOURNAL A.S.P.R., Vol. XXXVIII, April, 1944, pp. 72-82.

same kind of cells, removed at the same time from the same growing individual, would become, in one environment, skin cells; in a second, muscle cells; in a third, nerve cells. Growth is an expression of a field.

Spemann and his pupil Paul Weiss were able to show first that such action of living matter on living matter is never a one-way affair; such influences are reciprocal. The interactions proved to be no mere summations of the separate reactions occurring between pairs, but took on the properties of structural wholes or fields. Most important of all, Spemann and Weiss showed that the mother's body and the embryo are physiologically a single unit; there is no meaning in trying to describe mother and embryo as two sharply defined and separate forms of organization. The pre-natal environment—uterus, or whatever it is, depending upon the form of life involved—is not separate from the thing whose environment it is. A single energy field is involved.

It became evident during the 1920's that field theory also had much to offer in psychology.³¹ In studies of perception the various colors and shapes in the field of vision proved to be not so many discrete objects interacting on one another, but aspects of a unitary field in the full sense. It became clear that the motives which struggle with one another, as in the case of human conflict situations, are not always sharply defined, nor do they necessarily "block" or "repress" one another; they may form highly complex organized units in which the analytical method suffers exactly the same fate in practice which we noted above as occurring to the analytical method in late nineteenth-century physics. Mathematical analysis is feasible, but structural analysis, or what Dilthey called "the dismembering method," will no longer work. All the various phases of the individual's actions, whether he perceives or feels or remembers or thinks, have proved to be more intelligible when seen in terms of unitary fields. Psychology has found that in

³¹ *A Dynamic Theory of Personality: Selected Papers by Kurt Lewin*, McGraw-Hill Book Co., Inc., New York, 1935.

various experimental studies, notably those on memory and will, field principles make a practical difference in predicting what human action will be.

But psychologists, being ardent individualists, as are men of our culture generally, have proved by and large to be content with the application of field principles to the individual as a system of activities. They have not yet learned what they might have learned from Spemann and Weiss; namely, that there are instances in which two individuals may constitute aspects of an indivisible field. Social psychology has been influenced in some slight degree by the effort to apply field principles to the behavior of crowds and other social groups, but the effort has not carried us far. There is not the slightest doubt that anthropology and sociology within the next decade or two will learn more and more to see the individual as an aspect of the social field—far indeed from the sharply defined and autonomous little capsule of energy which he is likely to imagine himself to be. If field theory is a sound approach to the study of nature, it is probably sound in relation to all of nature's aspects—though of course the degree to which it will alter our existing outlook will vary from one area of study to another.

Implications of Field Theory for Psychical Research

At this point the implications of field theory for psychical research may be suggested. If it is a general principle of nature—that is, a principle which is independent of specific subject matter—that complex organized wholes cannot be fully understood in terms of ingredient parts, and if it is true that the life sciences have shown successful applications of this broad principle, it would certainly seem reasonable to look, at least in a tentative way, for evidence regarding the operation of field principles in telepathy, in mediumship, in psychokinesis, etc. From this point of view, it seems odd that we have made as much progress as we have in our efforts to study the "transmission of thought" from "one mind to another mind," and so on, assuming a

priori a certain absolute cleavage which in all probability does not exist. It might be of practical value in research if individuals—and cultures—could be chosen for intensive study in terms of their possession of rich potentialities for an unself-conscious approach, a capacity for interpersonal response.

We have already pointed out that Myers, Warcollier, Mrs. Sidgwick, and others groped towards the conception of a deep-level unity, an interindividual reality—a field, we may now say—of which all specific paranormal processes are actually aspects. From this point of view a subject and an experimenter in a telepathy experiment represent phases of an organic whole both at the ordinary normal level of interaction and also, more profoundly, at the deeper level at which the paranormal processes occur. If there be two or three subjects taking part simultaneously or successively, they constitute a larger unit, polarized to some degree perhaps by the experimenter. What Warcollier has called "contagion" between percipients,³² and what Mrs. Rhine³³ found in groups of competing children in an ESP game situation, may well be aspects of a sort of deep-level psychic interaction which gives results when no single percipient can make an independently significant score.

The Sidgwick hypothesis regarding the interaction of medium and sitter takes on richer meaning in these terms; and such complex structures as are found in the proxy sitting, where there is a physically present note-taker as well as a distant sitter, offer great possibilities for such field participation, as we hinted above. Indeed, instead of thinking of the position of the note-taker, between the medium and the distant sitter, as a sort of barrier or obstacle, we might think of the influence of the note-taker as depending largely upon his own psychological make-up, especially upon his deep-level make-up, and as contributing

³² *Op. cit.*, pp. 77-92, 241-246, 247-251.

³³ "Some Stimulus Variations in Extra-Sensory Perception with Child Subjects," by Louisa E. Rhine, *Journal of Parapsychology*, Vol. 1, June, 1937, pp. 102-113.

to the situation. In such situations certain note-takers might, far from interfering, actually enhance considerably the functioning of the field as a whole. We seem to have reached, via field theory, the point reached by a direct study of paranormal phenomena.

Two extensions in field theory are, however, required for psychical research purposes. First, it must be recalled that the phenomena with which we are dealing comprise contact with remote points in time as well as with remote points in space; such contacts with remote points in time are even more difficult to admit, from the physical point of view, than those involving space. Retrocognitive and precognitive phases of the field are involved, so that quite literally what happened long ago and what will happen at a remote future time become phases of an organized unitary psychic activity. Secondly, there is nothing whatever in the psychical field which would make the discarnate either especially likely or especially unlikely to be found participating in a given field. Their activity would not be required by the theory; it would not be necessary to believe, for example, that they are the messengers which carry telepathic impulses between the living, for the living themselves are fully capable of operating in the psychical field as described. On the other hand, field theory may quite properly be stated in terms of the processes known to psychical research, which, as we have seen, are not biological processes of the ordinary type; and if, on independent grounds, there is reason to believe that the discarnate exist and are capable of contact with the living, there is no theoretical difficulty involved in their participating jointly with the living in an interpersonal psychical field.

It will be noted that aspects of an interpersonal field do not have that capacity for *independent* existence which we usually like to assign to ourselves. While there is nothing in field theory as sketched which in any way weakens or argues against the existence of human entities independent of their biological organization, it is, on the other hand, reasonable to believe that with the loss of biological indi-

viduality—including the competitive individualistic life which plays a part in what we call human personality—every remaining and continuing psychical activity must tend to be articulated more closely into the complex structural whole of which it is an aspect. This would not mean that it would cease to exist. It might mean, however, that it would be less readily identified in terms of sharp differentiation from its psychical context. It is hard to know what a living poet, or an Eastern mystic, or a communicator through a sensitive, really means when he uses phrases about the gradual merging of the individual into some sort of cosmic whole. Indeed, they may mean different and contradictory things, and they may all be wrong. What they say does, nevertheless, seem to have much in common with the implications of field theory. If there is such a thing as a rigidly fixed and invariable entity continuing without change in a varying environment, such a thing is difficult to conceive; it would be contrary to the dynamic principles of interaction as understood by science, and in the light of a relativity approach difficult even to define. Human personality during life here is an aspect of the field in which it appears. After death, the field must surely be very different. No fixed unit recognizable in one field can be transferred, as by surgical transplantation, except into a new environment to which it is assimilable. The example of the embryonic grafts mentioned above may be useful. Whatever within us may exist under conditions other than the biological will reflect these other field conditions. Indeed, if we were to carry over into such other conditions the type of biological individuality which we have here and now, it is hard to see what we should do with it. Like the characters in Mark Twain's *Captain Stormfield's Visit to Heaven*, we should find ourselves equipped with powers irrelevant to our environment, and with attributes meaningless in relation to the tasks to be done. Even the term "personality" will be misleading unless defined in terms of each context in which it is studied. Whatever exists under other time-space-energy conditions, conditions in which

physics and biology as we now know them no longer directly apply, will be an aspect of these new conditions realized so fully that it may be better to start with a new terminology.

A final effort at an analogy will be made. As you watch the sunset, note a patch of red which persists more stably than the oranges and yellows which are rapidly changing about it. Disentangle this red, get it out of the sky, bring it home and put it among the embers in the fireplace in an attempt to make it fit with the other colors. But under the conditions of the illumination of the sky, and under the conditions of the atmosphere, a certain red was produced which cannot be carried home; it cannot be seized and put in the fireplace; and even if it could be, the embers and the firebrick about it, and the little eddies of orange and crimson smoke behind, will make it a very different thing. It is an aspect of a field. No aspect of a field can be identical in structure or process with any aspect of a field which is constituted in a fundamentally different way.

It must of course be remembered that the individual himself is a salient aspect of any structured whole in which he appears; his environment—the context of his life—derives attributes from him just as he derives attributes from it. The field is not the environment; it is the pattern of individual-in-environment. Now just as the various features of the environment differ in their importance, their influence upon the individual, so individuals differ in their influence upon their surroundings. Some are almost formless and fluid; others may be likened to storm-centers, modes of concentrated energy. The interdependence of personalities does not imply the absence of individuality, nor the varying influence which different individuals may have upon the world of which they are a part. But our thesis is that no personality can fail to exert *some* interpersonal effects, nor can it exist *solely* in and through itself without influence from others.

Does personality survive bodily death or not? The question presupposes a rigidity, a sharpness, a distinctiveness.

an encapsulation, which simply is not an attribute of the thing we know as personality. The field properties of personality from infancy to old age change profoundly as contacts change. With the change called death, there is every reason to believe that in so far as psychical operations continue, they must, as aspects of larger fields, take on new qualities, new structural relationships. The only way in which individuality could survive unaltered would be to cling forever to the biological organization first determined under evolutionary conditions—something perilously close to what the spiritualists call "earthbound" conditions.

So far, the theory has emphasized the almost unexplored interpersonal life of man. But precisely what is it that ordinary psychological processes accomplish in that universe of reality in which the paranormal exists; what is the influence of psychological activity upon the world of the paranormal? The simplest way of conceiving the matter might be to say that activity in time and space leaves a trace in a world which is not defined in terms of time and space. (A crude analogy: a dynamo cuts through fields of force, and in this way is able to generate electric current passing out over a wire. Such electromagnetic effects, once set up, may persist for a considerable time; indeed, from a theoretical point of view, they may persist indefinitely.) Is it not possible that every psychological event has made an impression in this way upon that interpersonal world which we have tried to describe? With such an impression the *present* psychological activity may make contact. (Telepathy and clairvoyance would make such contacts directly, while retrocognition might, perhaps, as we earlier suggested, reach back to the original events without needing contact with enduring impressions.) Through one means or another, we have the possibility that all the psychological processes of the past are somehow permanently assimilated to or organized within a single great context, with which our present activity is in touch and to which it makes its own infinitesimal contribution.

We come now to a pair of alternatives which constitute an

essential phase of this approach to the survival question. The term "surviving entity" may be used in a neutral sense, implying neither activity nor inactivity. Is the entity left by earlier psychic activities, something which remains static, just as it was until recaptured by a retrocognitive process? Or are such entities continuously active? If the former is true, the continuing existence of deceased persons would be like the continuing existence of all other things which have manifested themselves in time and space. These things, be it noted, are "real" from the present point of view. They are not things located in the past only; they are also located by definition in a non-temporal order of existence. According to the second hypothesis, however—the hypothesis of activity—such surviving entities are not only located in time in the sense defined, but interact continuously with the deep-level activity of the living.

It may appear that these two hypotheses are in flat contradiction. One hypothesis emphasizes the powers of the living, with retrocognition playing an especially important role — retrocognition which illuminates the feelings, thoughts, and purposes of men long gone, and histrionically presents these men as still living. The other hypothesis seems to imply a continuing personal life articulated into an interpersonal existence. But perhaps the two theories both contain some truth and some confusion, owing to the pre-suppositions which still enter into our ways of thinking and into our language. Let us reserve judgment about this and look at the matter in another way. If any paranormal event is to occur, there must be a cosmic system of psychical laws and psychical realities; the universe had to be the kind of a universe in which the paranormal could emerge. We may conceive the world of the paranormal as a sort of matrix from which proceed impressions which influence the specific psychological events which happen from day to day, and upon which they in turn make some impression. The impressions may be like the creases in a garment which long afterwards reveal the postures and habits of the one who has worn it, so that they can be retrocognitively caught by

the psychical activity of a sensitive; they may, on the other hand, be phases of a continuing cosmic activity. This is a question which there is no way of answering at present. Indeed, it is doubtful whether the two figures of speech tell the whole story. Assuming that "active" is more or less equivalent to "personal" and "passive" to "impersonal," the crease in the garment seems to be an impersonal thing, and a surviving memory seems to be a personal thing, so that from our present frame of reference they may seem to be utterly antithetical. But it is conceivable that these impressions left on the cosmic matrix are both personal and impersonal—both and neither—depending upon how we wish to define the word "personal." Psychical they certainly are, but sharply defined in individualistic terms they probably are not. The degree to which such surviving organized impressions resemble the memory, thought, and other impressions in our minds today, which distinctively mark us off from one another, and the degree to which they represent interpersonal events is something there is no possible way of deciding now.

But it is definitely feasible for research to study the role of interpersonal or superpersonal factors, and to define here and now the extent to which personality does function as an aspect of an interpersonal mode of organization; we may approach this problem both in ESP research and in reference to mediumistic communications. The two fields of research are not so dissimilar as they may seem. For it is likely that it is not only after death, but here and now, that the deep-level aspect of the self is an interindividual reality, exactly as Myers suggested throughout his writings, and perhaps in a sense even more profound than he guessed. Perhaps both before and after death individuals are aspects reflecting trends of the whole; and survival may be a continuity of these aspects of the whole, though undergoing gradual change. From this point of view, the apparent sharpness of individuality is not only a biological fact, it is also a biological artifact; that is, we seem to be more sharply individuated than we actually are. Yet in view of

the intercommunication between surface and deep-level processes (as shown in psychiatric experience as well as in psychical research), it is likely that biological individuality involves some binding or restraining influence at work in the organism which keeps even the deepest activity from becoming fully interpersonal, and therefore that the process of dying not only weakens biological individuality at the surface level, but also accelerates the process of liberation; i.e., facilitates the process of articulation between selves which we have already attempted to describe.

In terms of the tentative viewpoint developed here, the question for science in dealing with evidence for post-mortem existence might be phrased not in terms of a question such as "Is this Myers or not?" but in terms of the questions "What are the similarities between this communicator and the old Myers we used to know? What are the differences between this communicator and the old Myers?" The question appears to be not whether the fluid and complex thing which we call personality exists as exactly the same thing after death, but specifically what continuities and what changes can be observed. According to the alternatives sketched above, there would be, on any basis, some resemblances; but on no basis would there be complete identity. The question is not whether we survive or not, but what points of continuity there are, what points of functional comparability between those things which we call individualities as we know them, and those aspects of the interpersonal manifold sketched in various forms here. The question is to discover the aspects of individuality which remain, the degree of continuity in the way of thinking and feeling, and above all the balance between activity and passivity. If the types of research just referred to as urgent are intensively followed, notably if the interpersonal aspects of such experiences are earnestly pursued, we may well discover that loss of the "boundaries" of the self is just as rich and just as interesting a form of existence as preservation of rigid self-boundaries. At any rate, our wishes in the matter are no safe guide. We may well find,

as science has usually shown us, that the specific things that we want for ourselves are not waiting there in nature for our use, but that many undreamed things—often far more interesting—come to surprise and intrigue us.

Criteria for Survival Evidence

Now in spite of all the reservations and qualifications expressed here, many will wish simply to put the question whether *individual memories and purposes* continue active after death. In attempting to answer this question, we ought to state what types of evidence would be most cogent. The answer would be that at least three types of evidence would be of the highest importance.

(1) The first kind of evidence needed is evidence regarding the actual scope of the paranormal powers of the living who are involved in obtaining the evidence—notably more evidence on the influence of the investigator and the influence of the sitter, with a view to substantiating or refuting the field conception of the interpersonal powers developed here. When this has been adequately done, we might find in what degree purporting survival evidence is a function of interpersonal processes attributable to the living. Highly important in such an enterprise would be the discovery of cases of collective veridical hallucinations occurring *long after death*, hence pointing to the probability of activity on the part of the deceased rather than to activities assignable to a group of living persons. If there are a considerable number of good cases occurring long after death, under conditions making it implausible that the living could have engineered the matter, they will add greatly to the conception of active rather than passive residues.

(2) Another type of evidence which would bear directly on the problem would be a type of mediumistic material in which a communicator would assume the form under which he was known some time prior to his decease, rather than the form in which he was known at the time of death.

In most instances, of course, the surviving entity is represented as going on beyond death essentially as he was just before death. If, however, the retrocognition theory sketched here should be sound, we should expect to find cases in which the medium, sitters, and others involved in the communication make contact with the deceased as he was some time—perhaps a matter of years—before death. There have been a few cases in which apparitions took the form in which the individual was known some time prior to his death; but these are rather ambiguous, because the deceased may at the time have been remembering himself as of a certain period. The critical question is to find out by one means or another whether contact is made retrocognitively with the different periods of the communicator's life, or only with the personality as it was at the end of life. If only the latter kind of evidence appears, the fact must count against the retrocognition theory.

(3) Our third type of evidence seems to me most important of all. In discussing the Ear of Dionysius³⁴ case (in the January article), we encountered something which certainly looks like a purpose taking shape in Dr. Verrall's mind *after his death*, and consequently we concluded that to explain the episode in terms of telepathic information from the living is a forced hypothesis. The survival case is, however, made much stronger by the part represented as played by Professor Henry Butcher. The whole drama takes the form of communications jointly expressing the two friends; the communications make sense in terms of a plan worked out by them post-mortem. If the reader will make the attempt at a systematic interpretation of this case as expressing only the subconscious paranormal activity of the living, he will find the task of introducing Henry Butcher's part in the plot excruciatingly difficult. The process of planning looks, at least, like a process which was actually initiated by the fact of death and the opportunity to communicate.

³⁴ "The Ear of Dionysius: Further Scripts affording Evidence of Personal Survival," by the Right Hon. Gerald W. Balfour, *Proc. S.P.R.*, Vol. XXIX (1916-18), pp. 197-286.

Now this way of approaching the problem leads to a way of answering the question: "What is the most cogent type of survival evidence?" The answer, I believe, is that it is evidence which by definition takes the form of post-mortem interaction of two or more communicators. It is specifically a field expression; not expression of a solitary individuality, but of an enduring relationship. Some years ago I tried to contrive a plan for survival evidence based on this principle: Let us say that Paul Kempton, of Tulsa, Oklahoma, Pierre Leclerc, of Pawtucket, Rhode Island, Angus MacGregor, of Stirling, Scotland, and Leslie Durand, of the Isle of Wight, meet on the "other side." They wish to give evidence to their families. Checking over their various life activities, they discover that they all had one thing in common: they all had made collections of rare old Wedgwood china. No living human being ever knew that they had this *in common*; it is the kind of fact that could be ascertained post-mortem, but not before. It is true that the method would be laborious, and that the practical difficulties of carrying out the plan would be great; indeed, an attempt to give just such a test through Mrs. Leonard did not meet with a notable success.³⁵ But if such a plan did succeed it would be worth almost any amount of labor. Generalizing, I would say that to me the strongest of survival evidences would be this kind of evidence of continued purposeful interactions of personalities after death. Conversely, I would be inclined to say that the rarity of such evidence, and, in general, the feasibility of interpreting much purporting survival evidence as an expression of the extended powers of the living, constitutes a difficulty in accepting the case for survival. One of the "next steps" is to try to contrive a "favorable situation" for the development of the kind of evidences suggested.

Summary

In summary, we have discussed the suggestive evidence that paranormal processes are not necessarily the processes

³⁵ See the "Note" by Mrs. Allison, this issue, pp. 210-215.

of isolated individuals, but may express interpersonal systems of forces; and have tried to show that such a finding calls for the application of field theory, a scientific tool devised expressly to study systems of forces which are not mere summations of separate and distinct activities. While field theory is simply a way of formulating observations, and cannot solve the survival problem, it suggests that any personal activity which has ever occurred does continue to have cosmic context and to be part of cosmic processes; personal activities constantly change contexts, become phases of the activities of other personalities. The result is to make the sharp yes-or-no question as to human survival very unsatisfactory. There is some reason to believe that personality continues after death to be, as it is now, an aspect of an interpersonal reality, and to doubt whether it could survive as an encapsulated entity. But the question for science is to define just how fixed, just how fluid it is in respect to each of its characteristics. Paradoxically, the best survival evidence appears to be evidence (such as that afforded by the Dionysius case) of the survival of an interpersonal relationship capable of being brought into relation with the living.