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RESEARCH IN CREATIVENESS: WHAT CAN IT TELL US ABOUT EXTRASENSORY PERCEPTION?

BY

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Research in Creativeness: What Can It Tell Us About Extrasensory Perception?

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I

There are relatively few aspects of psychical research that anybody knows very much about, so it is an easy topic to talk about. It is one that I enjoy tossing before you like water that needs to be aerated in the hope that you will see here and there little issues that most of us who are professionals in this field are blind to. Now psychical research, as you know, is not a new field: a serious, organized psychical research is nearly a century old. But the problems are slippery, largely because they still lie beyond the fringe of science just as they did in the 'eighties when this work began. And when the phrase is used, as it sometimes is, "psychic science," I don't think it helps us to elevate ourselves to a scientific level; it cannot be done by any verbal magic of this sort. Certain *disjecta membra*, odds and ends of little apparent facts, don't constitute a science. It would be more honest to say, as perhaps E. E. Cummings would, "psychic *un*science." Our problem is to try to find laws or principles and then to be patient and gentle and not dogmatic as we search for confirmatory methods of one sort or another.

A good many of you may know that we have been concerned for a number of years with the nature of human creativity—artistic, musical, poetic, scientific, and inventive creativity, and social and political skills of many sorts. We are concerned with what it is in us that does more than merely redefine the old fragments. What is the nature of the creative process? Some of us have had a very strong hunch that what gives rise to the creative act has something in common with what gives rise to the "creative act" which we occasionally find in parapsychology, particularly in spontaneous paranormal experiences. Mark Twain, Swedenborg, Lincoln, Goethe, and many other celebrated and highly creative men of the western tradition have had dramatic experiences fulfilled in great detail (13). Many of these experiences occurred under harrowing personal circumstances and had to do with tragedies which had an objective basis at a distance or in a future time. I mention these merely as an illustration of cases where we strongly

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Research in Creativeness and ESP

9

suspect that the creativity of the percipients is related to their capacity for paranormal impressions—impressions not easily explained by mere suggestibility or lucky shots.

Research grants from the Ittleson Family Foundation of New York and Mrs. Alan Scaife of Pittsburgh to the Menninger Foundation, utilized at a number of different universities and at the A.S.P.R., have notably helped us in our study of the special conditions in the lives of creative persons that may be related to their ability to receive paranormal impressions; have made it possible for us to make a big start in finding what relations, if any, there may be between extrasensory perception and the like on the one hand, and creativity on the other hand. I have already had something to say about the data beginning to come in (11) and I am going to pursue this theme somewhat more fully tonight.

To take the first step in the path I am going to tread, I will ask this very simple question: What do we really know about extrasensory perception? Are we beginning to find any general principles that can be more or less sustained either in spontaneous cases or in experimental cases where the investigator has a chance to control more precisely and (ideally) to describe and measure the outcome with his experimental procedure? I think we may say that we are reasonably sure from the studies that have already been done within this frame of reference that three principles about extrasensory perception are rather solidly known and that they have a bearing on the nature of human creativity. These three principles, which I believe are quite clear-cut, are the principles of *positive motivation, relaxation, and dissociation*.

By *positive motivation* I mean a deep, strong, clear need to make contact with the distant material—material distant in space and sometimes in time—which cannot be reached through the normal sensory functions. I would not be willing to say that I have any idea at all what the energetic basis might be for such paranormal communication, but I do at least say that these are types of perceptive function that no psychologist or physiologist can define in terms of the senses. This we can be reasonably sure about. And I can say that just as motivation can make it easier to perceive normally—when you are working your way, let us say, through a fog or heavy drizzle you may be able to make out the contour of a passing vehicle or of a person approaching you far more effectively if you are motivated than if you don't care, so it also can make it easier to perceive paranormally. Motivation seems to enter into these cases. In the case of Mark Twain, for example, which I have referred to, it is obvious that Twain's devotion to his young brother had a very powerful effect in etching in the details of his vivid precognitive dream concerning the boy's tragic death in the

explosion of a Mississippi steamboat (13, pp. 189-191). These experiences don't happen casually; they happen in a motivated way.

Why did I say *relaxation*? In spite of all the work that has been done giving ESP subjects caffeine and benzedrine sulphate, and putting them on their mettle and trying to steam them up, I think it becomes clear that the moments of richest paranormal experience and the richest creative moments are moments of profound relaxation. The terminology isn't very good. But I would say that such things as muscular relaxation, the changed electrical conductivity of the body, some of the alterations in brain-wave patterns, and other changes for which we have pretty good measures today, seem to be related to various types of relaxed conditions. One recalls the story of Archimedes leaping out of the bathtub crying "I have found it, I have found it!" because he had solved the problem of determining the amount of gold in Hiero's crown by a sudden inspiration that came to him. And we are not surprised that when he was in a nice, comfortable, warm bath and taking it easy he was able to do something he couldn't do in a highly concentrated state. The great physiologist Helmholtz used to say that he worked in his laboratory during the morning and then after lunch he would take a walk in the Heidelberg hills and suddenly the answer would come. It should be stressed here, however, that such flashes of creative insight are usually the result of a long incubation period. You will find in Joseph Rossman's book (14) on industrial invention evidence that almost every case that looks like pure, sudden inspiration actually has had a long preparation, a long period of incubation. We do not know with anything like certainty that there is a similar unconscious preparatory phase in telepathic or other paranormal occurrences. But in any case, passivity seems to be a primary clue. Can you or I achieve such passivity by an act of will? Ordinarily not. In the Far East there have long existed arduous techniques for the creation of this special type of relaxation. In the West, we associate this with hypnosis, and nowadays with the newer drug effects of various sorts—some of the simple tranquilizing drugs and also the more powerful so-called psychedelic drugs.

It becomes apparent that there is something missing, however, if you are asked to define the term "relaxation." And this leads me to the third principle, the principle of *dissociation*, which points to the fact that the person is not really relaxed, so to speak, "all through." It is not a homogeneous relaxation; rather, there is a part of the mind which is actively concerned and all the rest is like a glazed surface, like ground glass, and capable only of a passive and fragmented type of activity. If devices like hypnosis can dissociate or split the mind, allowing part of it to become enormously focused

and the rest to remain quietly behind, this will apparently favor both the creative state and a state conducive to the paranormal. As Rhea White has recently pointed out (17), there is good evidence that we lose much of this by the rapid-fire "star-cross-star-star-waves" type of response that some people like to make in an ESP test as contrasted with the slow waiting for an image to etch itself in the mind.

It should also be said that another thing we don't know much about when we use the terms relaxation and dissociation is how to pass from this receptivity to the activity that I mentioned a moment ago. René Warcollier spent decades of his life working on the problem which he summarized in the phrase "active versus passive" telepathy (16). There is not only this receptive process that I have been trying to describe; there are also a few cases—G. H. Estabrooks' experiments at Harvard (4) are a pretty good example—in which there appears to be a preternatural focusing on the part of the agent, a tremendous effort to get an impression across, as if there were almost a bombardment of the mind of the distant receiver going on. How is it possible to describe in passive language that which comes sometimes with this tremendous blinding flash? Now I would remind you again that the case of the creative genius with the sudden insight often exemplifies the principle in which there is intense, explosive, violent activity along with deep passivity. Karlis Osis has been working on this intensively in connection with his studies of highly original and creative painters, sculptors, musicians and others in connection with his recent research with the support of the Ittleson Family Foundation, and it helps to bring out clearly and forcibly that there is *both* activity and passivity and that we must study in the ESP test situation everything we have learned from the study of the creative regarding passing from the easy to the vigorous, from the active to the passive.

II

If you will accept this as a halting beginning of an account of the sorts of things we know about ESP, emphasized by the terms *motivation*, *relaxation*, and *dissociation*, then you are ready to go on with me to the exploration of some further questions: What do we still need to know about extrasensory perception? What are the aspects of it to which we are almost totally blind?

First, it is necessary to contrast and differentiate effectively the dissociation which I have just described from ordinary fragmentation, "falling apart." We can find plenty of dissociation in ourselves and in the psychotic and neurotic, in the people suffering from the character disorders, drug addiction, and all the other ills that the

flesh is heir to. We only need to get very tired or overwrought or confused or frustrated to show a good deal of dissociation, but this doesn't automatically make us either creative or paranormal. Of course, it is true that here and there a paranormal impression may ride in on the wave of morbid dissociability. As Dryden said, "Great wits are oft to madness close allied." And he might have gone on to say that the paranormal is allied, at times and in certain people, both to the creative moment and also to the disturbed or upset moment. But it isn't very useful to say that dissociation is a great clue unless we can say what *kind* of dissociation it is that we are talking about.

And how about the rather abstract nature of the principles that have been given? How can these abstract principles be made more specific? In the case of motivation, perhaps some types are effective and other types not effective. Nearly twenty-five years ago I published an article (10) in which I tried to show that although motivation in general is a useful principle, you have to go to work and specify the different kinds of motivation and offer some sort of decent evidence that each of these is relevant. Take the everyday gain or money motive. One frequently hears of cases concerning people playing the numbers or roulette or the one-armed bandit, or whatever one does—dramatic cases of apparent successes against staggering chance odds. It doesn't help us very much unless we can say how this gain or money motive actually operates because many people have almost broken themselves on the wheel by this kind of activity. No one can tell you that this sort of hazard automatically mobilizes an effective gain motive. There are many other motives—the love between man and woman; the love of parent for child; the love of a man for his group, his country, his religion, or for humanity. It is one thing to talk about these principles as useful and another very different thing to make them so clear and simple that you can say the success in such-and-such an experiment lies in an abundant utilization of a certain class of motives and the failure in another experiment in the inadequacy of comparable motivation. These abstractions are very desirable, but science doesn't consist on the one hand of little fragments and on the other hand of vast, impersonal, almost nameless or faceless generalizations. Science has to have all sorts of intervening steps of generality; cases that hold for a particular type of experimental situation and which predictably give that kind of result whenever the same conditions are installed. I think that the three principles mentioned have worked out fairly well, but that is all that can honestly be said.

One particularly notable deficiency in our work to date lies in the lack of adequate discussion of the social situation. We have

learned more and more in general psychology in the last few decades that the human behavior which we thought was a predictable result of the contrived situations in the laboratory won't occur except when a particular atmosphere is created by the experimenter and the cooperating subjects who are taking part. Every laboratory creates its own special atmosphere and this shows in all sorts of subtle ways. It has been remarked that the contemplative behavior, the philosophical behavior, found in German rats was almost never found in American rats, which came very quickly to the trial-and-error solutions expected of them by the American experimenters. And Edward C. Tolman, perhaps the greatest comparative psychologist in this country, showed that the strains of white rats which were trained at Berkeley never could come up with the kind of data expected in the University of Chicago laboratory (15). The implications of this can be carried quite far. We have to recognize the importance of the atmosphere—even at the rat level and enormously so at the human level—whether or not we have objective ways of measuring it. I don't mean, of course, that there is necessarily anything paranormal in this atmosphere; it may be just little hints and clues that are passed around to indicate what would be a "good" result. The hypnotists have known for a long time that they don't have to say overtly what the subject should do; if there is some sort of hint in the atmosphere, he is pretty likely to pick it up. And from this point of view, we are beginning to realize that "good conditions" for paranormal results lie rather largely in the poorly specified factors of the experimental atmosphere.

Of course, these difficulties, however large they are, still become pale compared with one massive difficulty: the individual factor. When you lay down three general principles such as I have described, you can immediately think of somebody who would show all these effects in reverse English. This seems to be like the "dog effect" or the "cat effect" in working with drugs such as opium, for example. You find what is typical for one animal and then you get the opposite in another animal, or you find in human beings the so-called paradoxical effects. You administer a certain drug which should be expected to have a certain effect, and you get the opposite effect. Now there is no reason to be scandalized about this—the living organism is just that complicated. And I wouldn't be a bit surprised if some of you with a little bit of negativism in your nature or a little willingness to protest handed in a very nice experimental outline in which you showed that being poorly motivated, being restless rather than relaxed, being completely whole and not at all dissociated, gave the best results. And I wouldn't be shocked about it because the factors we don't control

—the rich, complex panoply of personal relationships, the things we don't know about ourselves or about our friends—these things can crowd in and reverse the sign, can give results quite different from what we expected. My generalizations are like most generalizations in the life sciences, and psychology gets the worst of its membership here in the life sciences; it gets all the irregularities and unpredictabilities that you get even in physiology and biochemistry; and then on top of that it gets those that the social sciences have to offer, which have to do with cultural and sub-cultural differences. And anybody who attempts to make parapsychology a closed system is certainly missing the individual factor.

III

At this point I would like to remind you that even in the physical sciences it has taken a great deal of patience to work from observations to general laws. I once had the good luck to be coming up in the elevator at the Men's Faculty Club at Columbia when Harold Urey, the world-famous Nobel prize winner in chemistry, was explaining to a few of his colleagues an experiment he had just been running. He was asked by one of them about replicating the experiment to see if he got the same results. Well, between the time we left the ground floor and got to the fourth floor, he had given a complete answer. He said, "Yes, you get an interesting result and you take pains to repeat it exactly. You do everything the way you did before and you don't get the same result. And then you say to yourself, 'Ah, I made a little error here and I overlooked something.' And then you change it so that all the little untidy quirks are ironed out and then you do the experiment again. And you get nothing like what you originally got. And then you go back and repeat the entire first experiment again, and you still don't get the same results." And this is the way the Nobel prize winner talks. And yet the psychologists will tell you calmly that we have a science here and should expect to get the same results every time. We should certainly *try* by every possible hook and crook to get as much uniformity and order as we can. We should not glory in unpredictability. But the fact remains that we inch along rather slowly in psychical research. The creativity people could have helped us a great deal on this problem if we had taken them even more seriously than we have because occasionally Homer nods, and sometimes quite often. Not every one of the thirty-seven Shakespeare plays is a great, immortal, and tremendous achievement, nor is every symphony by Mozart or Haydn. And if you look at the errors and confusions in Sir Isaac Newton, one of the greatest minds that ever functioned on this earth, or at the amazing

puerilities in Charles Darwin's *Origin of Species*, perhaps the most important book of the nineteenth century, you come to the conclusion that it isn't only now and then that the greatest geniuses are shot through and through with what seem to us pretty serious contradictions.

Now, if this is so, it puts the burden on those working in creativity to find the source of these anomalies and these vagaries, as well as the source of the continuing strength. I think that Freud, and to some degree Pavlov, helped us a great deal in trying to differentiate between levels of mental activity. Freud helped with his conception of the primary process—the most primitive, unstructured, diffuse, highly creative process that appears a great deal in early childhood and in all of us in relaxed and dissociated states, in dreams, and so on; and with his conception of the secondary process, which deals with reality by roundabout methods when we find that we cannot have our wishes by the quick and easy road and are forced to discover ways of going out and grappling with the tough reality to which we must adapt. And Pavlov helped with his idea of what he called the "second signal system"—a culturally ingrained system depending upon words, numbers, and other symbols which transcends the simple and primitive. In other words, we begin to realize that as we study creativity we find primordial intensity; a sort of volcanic energy source which then goes through individual modes of transformation before something specific is created, before a contrapuntal development is possible, before a particular mastery of the third dimension is achieved by the painter, or whatever it may happen to be. There is a role of discipline imposed upon the primitive, primordial fury of the energy source itself.

From this point of view, we would expect that at every point there would be an individual life history; we would expect to look at creativity in terms of the development of the person. And the biographical and autobiographical studies of creative people have taught us to use this genetic method, this developmental method. It seems evident that we should also look at the paranormal in terms of the development of the person, but almost nobody uses this method in psychical research. There have been very few systematic biographical approaches to the capacities which are often revealed. The exception lies in the handful of biographical or autobiographical studies of the great sensitives or mediums, but for the great range of our investigations, whether spontaneous cases or laboratory studies, we don't ask about the life history of our subjects. In other words, we have to take a tremendous jump here from the knowledge of creativity to an understanding of the paranormal processes as we get them in the life history data

which we collect in spontaneous cases and as we get them in laboratory investigations.

This, I think, points up sharply the need for using a method that the student of creativity automatically uses—the method by which you look for *exceptions* rather than simply confirmations of a law. In science we have an idea that the way to make progress is to get hold of a principle and then keep on hammering, solidifying, and standardizing it until we get a law that Kurt Lewin beautifully described as having “exceptionless validity” (7). This is a magnificent phrase. Science seeks “exceptionless validity.” But it might be worth while to do what has often been suggested by the students of creativity, and that is to deliberately set up a primary frame of reference from which to look for deviations and digressions. It might be wise to see if we can find out under what conditions the subject or a group of subjects *defies* what we easily think to be a common principle.

IV

This leads us to another very important forward step that has been suggested over and over again, but we haven't acted on it. It may be that our whole conception of methods is quite primitive. Psychical research took over, as experimental psychology had done in the nineteenth century, the experimental method from physiology, which in turn had taken it over from physics. Not all the sciences did that. Geology, for example, couldn't do it. Astronomy couldn't do it. We can't take an eclipse into the laboratory for experimental purposes. What we have to do is go to Sumatra and have eleven minutes of observation of the eclipse and come back with plates and perhaps spend several years working them up. But we can't experimentally control nature in the sense in which the physicist thinks he does. In this sense then, it may well be that psychical research has gone much too far in the attempt to model its basic methods upon those of the supreme experimental science of physics. It may be that the “case history” method, as you have it when the geologist studies the Grand Canyon or the astronomer studies the great Sumatra eclipse, where it is necessary to spend years preparing for and years following through on something which Nature gave, is a better model for psychical research. It is also quite possible that a better model would make relatively little of the uniformities and would be more radically individualizing than we have found a way to be. Gordon Allport of Harvard has talked a good deal about the two ultimately different aims, as he believes, in psychology: an individualizing aim, which he calls “ideographic,” and a generalizing aim, which he calls “nomothetic.”

(1). These are, again, reasonable ideals. But in psychical research we haven't pushed very far; we haven't individualized our knowledge the way the student of creativity has individualized his knowledge.

V

I think also that we have been inclined to neglect very small units of time. I believe this to be so very important an issue that I feel most investigators have been rather callous, rather opaque, to it. It is quite likely that if we shorten a time interval way down to very much less than a thousandth of a second, we will find some events that are very interesting from the point of view of the physical universe. In psychology we do have instruments which can measure a thousandth of a second in reaction time, for example; but for the most part, in terms of the way in which the human organism functions, we don't get down to the measurement of these very tiny split-second units. It may be that something analogous to an electron microscope for the observation of very tiny psychological time units might make possible a break-through to an understanding of these explosive flashes of insight that the student of creativity talks about. It is possible that creativity and the paranormal both are a matter of what happens when there is a *complete break* into the heart of the time process itself. Time doesn't necessarily go on and on flowing like Niagara Falls pouring down a cliff; it may well be that this assumption about time—its laid-out uniformity, every second being just as long as every other second, and so on—this way of thinking of a continuity is missing some of the explosive realities encountered. It may be a matter of getting out of one time dimension and then getting back into the ordinary dimension again. And it may be that more monkeying with the time dimension experimentally and looking closely at the explosive features of both the creative and the paranormal might give us valuable insights about both processes.

VI

I am inclined to think that we make another naive assumption that holds us back in using knowledge of creativity as it bears on ESP; this assumption has to do with concepts of *reorganization*. As I have already said, we are not satisfied if we are told that the creative mind is simply one that recombines familiar parts. If I were to tell you, for example, that Beethoven's greatest compositions were after all just rearrangements of tonal values, that the ordinary western scales give us all these values, and that anybody

who took the time could make all the possible tonal combinations, you wouldn't believe me. Nobody believes that even a millionth of the possible combinations could be worked through in a lifetime—or even if they could by some super-computer that this would have any bearing at all on the incomparable beauty of the *Missa Solemnis*! In the creative act there is something much more than the mere reorganization of bits and pieces. Now, what is this activity? Up to now we have used an essentially atomistic psychology, a psychology that splits things into pieces, a psychology which makes it easy to see how you can play a sort of game of Chinese checkers, or whatever, where you get your marbles across the board faster than your opponent does by following the rules of jumping. But somehow we don't really believe that this is the whole story, and we have begun to notice in some of the physics research of the last half century—the physics associated with Max Planck and the quantum theory—that it looks as if there were some events that reorganize themselves *all at once*. You can imagine that a tennis ball turning itself inside out in a fraction of a second would be a very different thing from taking a pair of scissors and snipping up the tennis ball and then sewing the pieces together again. I recently published a paper (12) in which I tried to describe some altered conceptions of time and space that may be useful in understanding how we get outside of the ordinary spatio-temporal frame of reference to get to another point in space and time. I suspect that we are going to have to deal with both the philosophy of time and space and with empirical studies of sudden, explosive reorganization; and we will have to mean something more by reorganization than we have ordinarily meant in the piecemeal definitions that we have had so far.

VII

As far as a fresh blast of wind to give us a lot of new material is concerned, I don't know of anything to compare with the so-called "peak" experiences that have been described by A. H. Maslow (8, 9) and a number of others. These are experiences which are creative in a somewhat different sense from all that I have been describing here. We all know how every now and then the world seems suddenly different. It may be possible to describe some of the reasons, but to catch and hold and look at for a moment what is involved in this complete and utter change in outlook is too much for most of us. Many years ago Dr. R. Maurice Bucke wrote a book with the extraordinary title *Cosmic Consciousness* (2). In it he talked about how persons might suddenly cease to see the world in familiar terms and might identify with or become one

with the world in a new sense. Apparently Bucke, while riding in a cab, suddenly had—maybe lasting for a minute or two—one of these experiences. It became a lifetime center of concern to him and he gathered the stories of some seventy-eight people who had experienced what he called cosmic consciousness. Some of these are similar to the Indian mystical accounts such as you find in the *Upanishads* and in the *Yoga Sutras* of Patanjali and some are similar to the rather modern mystical experiences of recent centuries which William James described in his *The Varieties of Religious Experience* (6). And the little group of people in Menlo Park in California who have been working on psychedelic drugs (3) have made the point that in the course of their investigations they have come across experiences which are extraordinarily similar to the classical yoga descriptions and interpretations.

Now these experiences are certainly creative, whether or not they result in writing a new poem, composing a new symphony, or inventing a new machine. They are creative because, as William James said (6), they lead to a new way of construing, a new way of organizing, a new way of making sense out of the universe. But there can be no doubt at all that because we are a little bit afraid of being regarded as flighty or romantic, we have been very much too casual about their importance. Now, although I still don't think anybody can explain them, I do think there have been a number of honest and serious efforts to do so. I think in many cases you have the feeling that you are getting near to sharing the experience. If you yourself have had such experiences, you "catch the lingo" of those who describe them; if you have not, you can at least work up toward the anteroom in which you can make some sense, some picture to yourself of what may go on in the holy of holies of the inner experience. And that is exactly what Maslow (8) says about some of his own peak experiences. They cannot be perfectly communicated, but something can be said which others may begin to catch, as it were, from an anteroom outside of the central experience.

Although I myself have never had a full-fledged peak experience, I have found that by reading and comparing and meditating and subjecting some peripheral aspects of them to clinical or experimental analysis, I have come to the conclusion that these experiences are a very important way-station, or bridge, that may carry the serious investigator from the world of creativity to the world of the paranormal. But this will be true only if generous allowances are made for the inadequacies of human verbal description. There is no doubt at all that both the peak experiences and the creativity experiences are often sloppily described. And our lingo in the description of telepathic, clairvoyant, and precognitive experiences

is mostly quite crude. Once we get beyond the measurement of the degree of success which a person achieved in a card-guessing test, which is a rather superficial and external approach, and try to pin down what is really happening to the living organism, our language becomes pretty poor. And I would say that part of the reason for this is that we have been so anxious to be mature, stiff, serious, not-to-be-laughed-at scientists that we have swept under the rug a good deal that is rather gentle and rather whimsical and rather childlike about the states in which the paranormal occurs. There is a good deal here that doesn't sound like an astronomer working with a reflector telescope, a good deal that doesn't have the hard, tough, scientific aroma about it. And I think that the attempts of the investigator to do the best he can in terms of modern scientific criteria and at the same time to respect the whimsical, chaotic, childish, romantic, ineffable character of many of the things he comes into contact with is a primary source of our difficulties in carrying over from the creative to the paranormal. Recent investigations of highly creative people have shown, for example, that very often they find that to try to talk to an experimental psychologist in the kind of language that the latter would expect to use in his scientific publications may involve a certain travesty of the inner experiences and feelings which they are trying to express.

VIII

I am going to emphasize one fancy of mine for which I have practically no research evidence at all. On other occasions I have suggested that it is not the motivated state, not the relaxed state, not the dissociated state *in themselves* which are conducive to both high creativity and high paranormal success, but rather a rapid *movement*, say, from an unmotivated to a motivated state; or from a relaxed to a highly active state; or from a highly integrated to a very dissociated state. And I have used the crude analogy of cutting lines of force, as an engineer would tend to think of the matter; it may be that we exploit energies as the result of a *transition*, as a result of passing from one way of functioning to another. From this point of view, it may be that a cardinal guideline was thrown to us many years ago by William Ernest Hocking of Harvard, who wrote on what he called the "alternation principle" (5, pp. 405-427). You will all remember how Zarathustra in Nietzsche's book *Thus Spake Zarathustra* had to go off to the high desert in order to come back to share with the multitude. A state of absolute passivity and serenity and receptivity is not in itself enough; but the clue may lie in the impact which is made when

one passes from this state to one of enormous intensity and activity. A great many creative persons have tried to describe the enormous energies which came to them when they were able to cut through the "lines of force" and pass from a low level to a high level or, as some of them would say, from a "negative" to a "positive" state—the language is all very unsatisfactory. But the point is that they made a clean break into something new.

I have posited all along that there is something really here that involves similarity between the clean break of the creative person and the clean break of the sudden telepathic or clairvoyant or precognitive impression. I am suggesting that there are many hypotheses here well worth testing; that there is much that our literature has begun to show us which is worth putting to work; and nothing more obvious, I think, than the Hocking alternation principle: that is, working in psychophysiological settings in which you pass your subject from one state into another as a part of your experimental control. In the case of your ESP subject, you would define, just as you would for your creative subject, what you expect from him given his particular, individualized personality in his cultural milieu, his family, his friends, the immediate personal pressures upon him, the kind of world in which he lives. What kind of a dynamic, sudden shift from one state to another would be likely to precipitate the high paranormal moment? I suspect that work on this problem will show us that already the biographers and the writers of autobiographies, diaries, and so on, have given us much that we have not as yet adequately digested and that very possibly in the next era it will be the study of this alternation principle which will enable us to see how a perfectly ordinary world of contact with the immediate sensory environment may be transferred, transposed, and transfigured into another kind of world in which paranormal contacts are made.

REFERENCES

1. ALLPORT, GORDON W. *Personality: A Psychological Interpretation*. Boston: Houghton Mifflin, 1937.
2. BUCKE, R. MAURICE. *Cosmic Consciousness*. New York: E. P. Dutton & Company, 1923. (4th edition.)
3. COHEN, SIDNEY. *The Beyond Within: The LSD Story*. New York: Atheneum, 1964.
4. ESTABROOKS, G. H. "A Contribution to Experimental Telepathy." *Bulletin* 5, Boston Society for Psychic Research, 1927.
5. HOCKING, WILLIAM ERNEST. *The Meaning of God in Human Experience*. New Haven: Yale University Press, 1912.

22 *Journal of the American Society for Psychical Research*

6. JAMES, WILLIAM. *The Varieties of Religious Experience*. New York: Longmans, Green & Co., 1902.

7. LEWIN, KURT. *A Dynamic Theory of Personality*. New York: McGraw-Hill, 1935.

8. MASLOW, A. H. *Motivation and Personality*. New York: Harper & Brothers, 1954.

9. ———. "Cognition of Being in the Peak Experience." *International Journal of Parapsychology*, Vol. 2, Autumn, 1960, 23-50.

10. MURPHY, GARDNER. "Psychical Phenomena and Human Needs." *Journal A.S.P.R.*, Vol. 37, October, 1943, 163-191.

11. ———. "Creativity and its Relation to Extrasensory Perception." *Journal A.S.P.R.*, Vol. 57, October, 1963, 203-214.

12. ———. "Lawfulness Versus Caprice: Is There a 'Law of Psychic Phenomena?'" *Journal A.S.P.R.*, Vol. 58, October, 1964, 238-249.

13. PRINCE, WALTER FRANKLIN. *Noted Witnesses for Psychic Occurrences*. Boston: Boston Society for Psychic Research, 1928.

14. ROSSMAN, JOSEPH. *Industrial Creativity: The Psychology of the Inventor*. New Hyde Park, New York: University Books, Inc., 1964. (3rd edition.)

15. TOLMAN, EDWARD C. *Purposive Behavior in Animals and Men*. New York: Appleton-Century-Crofts, 1932.

16. WARCOLLIER, RENÉ. *Experimental Telepathy*. Boston: Boston Society for Psychic Research, 1938.

17. WHITE, RHEA A. "A Comparison of Old and New Methods of Response to Targets in ESP Experiments." *Journal A.S.P.R.*, Vol. 58, January, 1964, 21-56.

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