

PARAPSYCHOLOGY AND ANTHROPOLOGY

PROCEEDINGS OF AN INTERNATIONAL CONFERENCE
HELD IN LONDON, ENGLAND
AUGUST 29-31, 1973

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EDITED BY

Allan Angoff and Diana Barth

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CONTENTS

INTRODUCTION	
<i>Allan Angoff</i>	xv
GREETINGS	
<i>Eileen Coly</i>	xvii
<i>Eric J. Dingwall</i>	xvii
<i>Emilio Servadio</i>	xviii
THE IMPLICATIONS OF ESP EXPERIMENTS FOR ANTHROPOLOGICAL ESP RESEARCH	
<i>Hans Kreitler and Shulamith Kreitler</i>	1
DISCUSSION	16
THE ANTHROPOLOGIST'S ENCOUNTER WITH THE SUPERNATURAL	
<i>Ioan M. Lewis</i>	22
DISCUSSION	31
TRANCE AND ORGASM IN EURIPIDES: BAKCHAI	
<i>George Devereux</i>	36
DISCUSSION	52
HEX DEATH	
<i>Joan Halifax-Grof</i>	59
DISCUSSION	74
AN INVESTIGATION OF PSI ABILITIES AMONG THE CUNA INDIANS OF PANAMA	
<i>Robert L. Van de Castle</i>	80
DISCUSSION	98

PARAPSYCHOLOGICAL PRINCIPLES FROM ANTHROPOLOGICAL STUDIES	
<i>Bob Brier</i>	101
DISCUSSION	114
PEASANT-HEALERS AND THE PARANORMAL	
<i>Emilio Servadio</i>	121
DISCUSSION	130
ANTHROPOLOGY, PARAPSYCHOLOGY AND RELIGION	
<i>Alister Hardy</i>	136
DISCUSSION	144
OCCULTISM IN ŚĀKT RELIGION	
<i>Jamuna Prasad</i>	150
DISCUSSION	159
SOME REFLECTIONS ON ANTHROPOLOGY AND PARAPSYCHOLOGY	
<i>Marcelk Martiny</i>	165
DISCUSSION	177
SECOND SIGHT IN NORTHERN GERMANY: TRADITIONAL POPULAR BELIEF AND PRECOGNITION	
<i>Gerda Grober-Glück</i>	180
DISCUSSION	198
A DESCRIPTION OF DIVINATION AMONG THE SAKALAVA OF MADAGASCAR	
<i>Robert W. Sussman and Linda K. Sussman</i>	203
DISCUSSION	217
THE ONTOLOGICAL STATUS OF PSYCHIC PHENOMENA IN HINDUISM AND BUDDHISM	
<i>Agehananda Bharati</i>	223
DISCUSSION	236
THE END OF A LEGEND: A NOTE ON THE MAGICAL FLIGHT	
<i>Eric J. Dingwall</i>	241
DISCUSSION	256

<i>Contents</i>	xiii
FOLK USE OF THE DREAM IN RELIGIOUS SOCIETIES	
<i>Herbert Weiner</i>	262
<i>DISCUSSION</i>	269
AFRICAN APPRENTICESHIP	
<i>Adrian K. Boshier</i> d. 1978	273
<i>DISCUSSION</i>	284
AFRICAN BELIEFS IN THE PSYCHIC MANIPULATION OF MATERIAL PHENOMENA: THE TENSOBA IN MOSSI SOCIETY	
<i>Elliott P. Skinner</i>	294
<i>DISCUSSION</i>	306
THE OCCULT AND THE INTELLECTUAL	
<i>Jeffery J. Smith</i>	313
<i>DISCUSSION</i>	322
CLOSING REMARKS	
<i>Emilio Servadio</i>	327
<i>Allan Angoff</i>	327

INTRODUCTION

ALLAN ANGOFF: Good morning, ladies and gentlemen. On behalf of the trustees, I am glad to declare open this Twenty-Second International Conference of the Parapsychology Foundation. We of the Foundation welcome you as participants and we welcome you as observers.

Our theme is, as you know, "Parapsychology and Anthropology." It suggests some observations made by Dr. J. B. Rhine some thirty years ago in an editorial in his own *Journal of Parapsychology*. "Whose field is parapsychology?" asked Dr. Rhine, and then he went on to remark (I'm quoting him): "It is not enough to say that parapsychology belongs to the parapsychologists. It is revealing no state secret that there are not enough active parapsychologists in the world today to continue an adequately self-sufficient group. To whom," continued Dr. Rhine, "then does the field belong? Who are the people who hold such an interest and by means of it are led either to become explorers or students of the problems called parapsychological and of the evidence for their solution."

Again, Dr. Rhine replied to his own question and in this manner:

Perhaps the only group of professional men who can be said to have played a positive role in bringing the attention of the scientific world to the need of investigating parapsychological occurrences, are the anthropologists. There appears to have been fairly widespread agreement in their reports that they have witnessed behavioral phenomena that they were not able to explain by present-day behavioral concepts. Here, by definition, is where parapsychology comes in.

Now these are the words of a parapsychologist—a very great one, a great pioneer in the field who still knows that his discipline (and he insisted it was a discipline) was not so respectable. Remember, it was only three years ago that parapsychology achieved in the United States a measure of respectability when it was recognized by the American Association for the Advancement of Science. It is quite significant, therefore, I think, that

a decade after Dr. Rhine's remarks, a great ethnologist and anthropologist, Dr. John R. Swanton of Harvard, familiar to some of you, former president of the American Anthropology Association, and the Vice-President of the American Association for the Advancement of Science, wrote his famous "letter to anthropologists" in Dr. Rhine's *Journal of Parapsychology*, and urged his colleagues to "shun caution and respectability and to heed the phenomena uncovered" in what he called "the significant revolution which concerns us all and is taking place quietly but surely in a related branch of science and that is not being met in an honest and truly scientific manner."

Today, twenty years later, after Dr. Swanton's daring appeal, we have here, in this room, some of the most eminent anthropologists sharing our discussions of the psychic elements in man's history, with scientific colleagues of equal eminence from other fields. Thus, this conference symbolizes, how far we have come from the days when Dr. Rhine and Dr. Swanton—a parapsychologist and an anthropologist—suggested the immense potential for research, experiment and discovery in an area of common interest for both sciences. I think we can begin on that note.

Before I do so, however, let me note that Eileen J. Garrett established this Foundation and inaugurated these conferences more than two decades ago. Her great associate, her strong coworker, was her daughter, the second president of the Parapsychology Foundation. I am glad to present her now—Mrs. Eileen Coly.

GREETINGS

MRS. EILEEN COLY: It is just my very pleasant duty to welcome all the participants, all the observers; thank those of you who have travelled a great deal and long distances to be with us, and we look forward to some very good things coming from this conference, stimulating papers, and I think it's going to be a great one. Thank you.

ALLAN ANGOFF: Thank you, Mrs. Coly. We could hardly begin a conference in London without some words about this great London area where so many of the early researches were carried on, where Mrs. Garrett herself carried on her pioneer researches in psychic phenomena. There is hardly a person, anywhere in the world, better qualified to speak for London and the early investigations here in this metropolitan area than Dr. Eric Dingwall, surely the Dean of psychic researchers today. Dr. Dingwall.

DR. ERIC J. DINGWALL: Our President, Ladies and Gentlemen, I've been asked to welcome the foreign delegates to the great city of London. London, since the Roman occupation, has been the scene of many remarkable events, and from our point of view, London is the "haunted city."

Haunted spots, such as Dr. Scott's house in Broad Street—the story of which was told in 1770; the Tower of London, Covent Garden, houses in Baker Street, Berkeley Square, and Chelsea. Indeed, there are so many haunted places in London that whole books have been written about them, such as the one by Walter Thornbury in 1865, and the later book by my old friend and ghost hunter, Elliott O'Donnell, in 1909. Poltergeists have been active here since the seventeenth century, but it was much later that it became the real center of intellectual interest in the Victorian age. In mystic London, as Maurice Davies called it, mediums of every kind were giving demonstrations and seances.

William Crookes was walking about arm in arm with Katie King—a full-form materialization, while the friend of the medium, Miss Florence

Cook, was telling people how the props and the masks for the materializations could be bought in Houndsditch for just a few shillings; but apart from these performers, it was Daniel Dunglas Home and the Reverend Stainton Moses who were puzzling the Victorian intellectual world. Home moved from house to house in distinguished company and his name was known to the nobility and gentry all over England. In those days, London was almost as noted for its interest in the occult as it is today. Ample opportunities existed to delve into the so-called psychic mysteries. They still do.

I welcome, therefore, our foreign delegates to London—the center of occult England. If you do go ghost-hunting in this great city, I can at least wish you good sport and good luck!

ALLAN ANGOFF: Thanks, Dr. Dingwall. I'll now introduce the first of our six chairmen. There is a chairman for each session.

The first is the veteran Dr. Emilio Servadio.

DR. EMILIO SERVADIO: I am very flattered and honored to be the first chairman in this conference. So we start with our session and I see that we have first of all on our program, "The Implications of ESP Experiments for Anthropological ESP Research" by Hans Kreitler and Shulamith Kreitler. I think that Dr. Kreitler will read his report.

THE IMPLICATIONS OF ESP EXPERIMENTS FOR ANTHROPOLOGICAL ESP RESEARCH

HANS KREITLER AND SHULAMITH KREITLER

Even if the remark by Lévi-Strauss: "... ethnology is first of all psychology ...",¹ may represent too radical a statement, many psychologists and anthropologists would readily agree that the scientific elucidation of human experience and behavior benefits from a collaboration between these two disciplines. From the numerous examples demonstrating mutual inspiration and guidance it suffices to mention only Heinz Werner's ingenious attempt to exploit anthropological findings for the sake of developmental psychology or Margaret Mead's and Ruth Benedict's success in using psychoanalytic concepts as guidelines for anthropological observations. There are also many examples of actual teamwork between psychologists and anthropologists. Nonetheless, a certain type of cooperation, frequent in other sciences, is still too rare in the psycho-anthropological domain of research. Mathematicians who know of a problem in physics readily offer the physicist a mathematical model which may help him in solving the problem. Chomsky directly challenged psychologists to exploit his model of transformational grammar for their studies in cognition. Biochemists and microbiologists frequently delineate the most promising area for clinical observations in regard to a specific disease, while the medical clinician presents his observations as challenging questions for chemical or bacteriological laboratory research.

The advantages of this direct-approach method are obvious. The increasing intensification of scientific research, the abundance of findings, and the tendency of models to generate more models make it difficult enough for every scientist to be a somehow well-informed expert in his own field of specialization. Yet, in addition, they constitute a growing barrier between different disciplines. An anthropologist who wants to know what psychologists found out about, for example, remembering, has either to study two or three years or may run the risk of overlooking precisely those findings most relevant for his own work. The same goes for the psychologist who believes that his studies of memory would benefit from more information about

memorization techniques used in other cultures. Moreover, there is the ever-growing gap created by professional terminology. One has to be well-versed in the language of statistics in order to find out which ESP findings are reliable enough to deserve serious consideration. Hence, the direct approach, being less demanding than interdisciplinary teamwork, may frequently prove to be the most convenient bridge for scientists who have to cross over into the jungle of another discipline.

In the present lecture we attempt such a direct approach by offering findings and interpretations of our psychological ESP research as possible guidelines for anthropological studies of ESP phenomena.

One of the major problems of ESP research is due to the difficulty of locating ESP phenomena, especially under conditions which make scientific observation possible. This difficulty is not unique. It took physicists more than two thousand years to attain some direct evidence for the atom as postulated by Demokritos. Again, almost three hundred years passed until Freud managed to find some indirect evidence for the impact of unconscious processes as postulated by Leibniz. And even then the psychological as well as the anthropological study of unconscious processes could start only after Freud's initial observations yielded some hypotheses about where and how the operation of these processes could be observed.

Hence, the main question facing the anthropologist embarking upon ESP research is: Where and how to look for ESP phenomena? Or, more systematically worded: (a) Is it at all likely that other cultures than the Western civilization give clearer evidence for the existence of ESP? (b) Which cultures are the most promising ones in this respect? (c) What are the optimal conditions for scientific ESP studies in the target cultures?

The famous "sheep and goats" hypothesis seems to present an indirect answer to these questions by designating believers in the existence of extrasensory or paranormal phenomena as the most promising subjects for ESP studies. However, although it is psychologically convincing that those who actually experience ESP should believe in its existence, it is psychologically unfounded to conclude that all or even many believers are capable of perceiving or emitting ESP messages. In the absence of any scientific theory supporting the "sheep and goats" hypothesis, we have to fall back on the existing data pertaining to this phenomena. These data, however, are contradictory and at best merely indicate that ESP phenomena may be somewhat more frequent in those cultures with a cognitive orientation which does not contain elements over-antagonistic to the supernatural or to the hitherto unexplained.²

Many cultures could in principle correspond to this vague criterion, and in each of them there probably exist some conditions which promote ESP

phenomena and other conditions which inhibit them. Therefore it would be welcome to furnish some more unequivocal criteria for guidance of anthropological ESP research. It is our intention in this lecture to offer a few criteria specifying conditions propitious for the occurrence of ESP phenomena.

Several years ago, we carried out a series of experiments, initiated and supported by the late Mrs. Eileen Garrett.³ These experiments were designed to answer the question as to whether ESP is likely to affect the outcome of the usual type of psychological routine experimentation, and, if so, what level of statistical significance would suffice to safeguard against such ESP interferences. The subjects participating in these experiments were naive in regard to the purpose of the studies. Moreover, in contrast to many ESP experiments, the subjects were not selected by virtue of any actually manifested or assumed ESP ability. They were undergraduates in the Faculty of Humanities at Tel-Aviv University, mostly students in the Department of Psychology, who volunteered without payment to serve as subjects in a psychological experiment whose purpose was unknown to them. The reason for this unusual procedure was our intention to run the experiments in a manner as similar as possible to the way routine psychological experimentation is carried out. Yet, by using this procedure of engaging subjects, we also wanted to test the assumption that ESP abilities, if they exist at all, are not the unique property of a chosen few but exist and can be noted in every single human being. The rationale underlying this assumption was the following: In spite of great individual differences in intensity or strength of perceptual abilities, every person possesses all the human perceptual capacities unless he is genetically or accidentally damaged. There are people capable of distinguishing between two tones differing only by a pythagorean comma and others who are able to distinguish two tones only if they differ by an interval not smaller than five half-tones. Yet all normal humans are known to be able to distinguish between a very high and a very low tone. Hence we ventured to hypothesize that ESP should exist, at least to a minimal extent, in every subject and may consequently be expected to contribute towards raising the average group level of ESP performance.

Since we have already published all the details of these experiments, which were highly elaborate from a technical point of view, it would suffice to describe them here only briefly. The physical arrangements were identical for all four experiments.^{4,5} In one room the subject, who was unaware of the existence of a sender, performed his task, while in another room a second subject serving as the sender was instructed either to transmit a predetermined outcome or, in one specific case, to think about a particular outcome. Only in one of the experiments did we use a special control group, namely, subjects performing the task without a sender, while in the other three

experiments each subject served as his own control in the sense that he performed sometimes with and sometimes without the sender being active. To the best of our knowledge, the security arrangements were the most stringent ever employed in ESP experimentation. In Experiment 1, after determining each subject's threshold for visual perception of the letters of the Latin alphabet, each letter was projected subliminally to the subject, once with and once without the sender viewing this same letter and thinking about it. In Experiment 2, autokinetic movement was used, namely, the tendency of most humans to perceive a static point of light in a totally dark room as moving in one or more directions. In four runs the subjects were required to report the perceived movements of the light-point in any one or more of the eight specified compass directions, but they were unaware that in one of the runs a sender was instructed to think about one of these eight directions. In Experiment 3, the subjects had to tell stories about six TAT (Thematic Apperception Test) cards, while at the same time a sender was requested to think about a certain predetermined theme, more general or more specific. The control group performed the same task without a sender. Experiment 4 was the most complex one.⁶ It dealt not only with the problems mentioned in regard to the former experiments, but was also designed to clarify two further questions which arose in the course of prior experimentation. We wanted to know whether ESP and subliminal perception strengthen each other and fuse, or whether they remain two distinct sources of information. Moreover, we were curious to learn whether a sender instructed to think about a particular outcome or event communicates this information better, equally well, or less effectively, than a sender instructed not only to think about the particular outcome but also to try to transmit this information to another unspecified person. As stimuli we used three well-known optical illusions of the type reproduced in Figure 1.

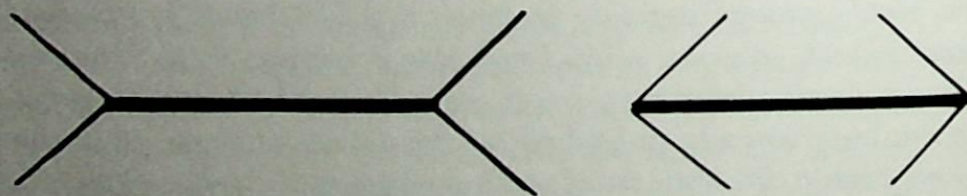


Fig. 1. The classical Müller-Lyer illusion. The heavy lines represent the supraliminally projected part of the figure, while the thin lines represent the subliminally projected part.

In the experiment proper, that is, after controlling for individual inclinations of the subject, the core part of the figure was projected supraliminally

and the illusion-producing part was projected subliminally. Concomitantly, the sender thought either in accordance with the subliminally projected illusion effect or in contrast to it. Moreover, in some of the runs the sender was instructed not merely to think about the respective outcome but to try to transmit it to an unknown person.

The results of all four studies were no less surprising than puzzling. In each of the experiments we obtained a highly significant effect in line with the ESP message. This effect, however, if judged by everyday-life standards, would not be called a very dramatic ESP manifestation. Rather, it would be evaluated as an essentially weak but very regular or reliable phenomenon, which could well escape observation if not especially looked for under its most favorable conditions and by the aid of statistical analysis. Nonetheless, psychologists carrying out their usual experiments must safeguard against ESP interference.

Yet, more important than the already trivial finding that ESP exists were three other results of our studies. First, the obtained ESP effect was not due to the excellent performance of one or a few subjects particularly gifted for ESP, while the other subjects performed at about the chance level. On the contrary, the effect resulted from the cumulative performance of most, if not all, of the subjects. Hence, our hypothesis that the ability of ESP exists in every person seems well supported. Therefore, these experiments can be replicated in every psychological laboratory. Moreover, the findings suggest that not only laboratory experimentation with ESP but also field studies of spontaneously occurring ESP phenomena must not necessarily be restricted to discovering a particularly ESP-gifted individual, say a "medium." However, optimal conditions for discovering ESP phenomena are indicated by the two following findings.

These two further findings of major importance are based on the observation that in all four experiments marked ESP influence was evidenced under similar conditions. In the first experiment (which dealt with the identification of subliminally projected letters), ESP was effective only in regard to those letters which without ESP had the lowest probability of being identified. In the second experiment (which dealt with autokinesis), ESP affected the apparent movements of the static light-point only in regard to those directions which without ESP were seldom, if ever, reported by the subject, while ESP failed in regard to those directions which without ESP were frequently perceived. Again, in the third experiment (which dealt with stories told about TAT cards), ESP had a marked influence only on themes which without ESP had a very low probability of being mentioned by the subject in the context of a story to a specific TAT card. Finally, in the fourth experiment, a significant ESP impact was observed only in the condition in

which the transmitted ESP message was contradictory to the subliminally generated optical illusion. Moreover, the results of this last experiment showed that a sender consciously trying to transmit is superior to a sender who is instructed only to think about a certain outcome. Accordingly, the two outstanding features which these four experiments have in common are: (a) ESP is a weak source of information in randomly chosen subjects; and (b) ESP increased significantly neither the frequency of reactions contingent upon physical stimulation from outside the organism, namely, subliminal information, nor the frequency of reactions elicited by pre-existing reaction tendencies, namely, physiological stimulation from within the organism. However, if ESP information was not in line with these sources of information, it proved to have a significant effect, particularly if the sender tried to transmit his message instead of merely thinking about it.

These results, interesting as they may be, seem at first glance to be of little relevance for anthropological ESP research. Only when analyzed in terms of characteristics of channels of communication as well as signal-noise relations and when considered against the more general background of interpersonal communication can they provide a lead for the anthropologist searching for evidence of ESP in other cultures.

From the viewpoint of communication, the meaning of the term "extrasensory perception" is negative in the sense that it excludes the transmission of information through one of the hitherto-known sense organs. However, the term allows for two psychological interpretations. It can be understood as indicating transmission either through a hitherto-unknown sense organ or through some channel of communication which should not at all be conceived of as a sense organ. The term "perception" highlights the first interpretation and was frequently understood in this vein. Accepting this interpretation would lead us to expect that the so-called "ESP channel" possesses at least some of the properties common to all the other already identified channels of perception. The second interpretation, based on the term "extrasensory," leaves us totally in the dark about any characteristics of the ESP channel. Our experiments support the second interpretation and thus reveal an important aspect of the relation between sensory and extrasensory perception.

In spite of Müller's classical law of specific sense energies it is well-known that messages mediated by different sense organs are likely to fuse if the conveyed informations supplement each other positively or negatively. For instance, visual perception of the verticality of a line is strongly influenced by auditory stimuli as well as by electrical stimulation applied to one side of the neck;⁷ the perception of hunger may affect the identification of perceived objects;⁸ correspondingly, a glance at one's watch may affect the

perception of hunger;⁹ and most important of all, information that remains subliminal if picked up through one channel only turns supraliminal if supported by information from another channel, for example, whispered words which relate to visual stimuli.

All of our experiments, but especially the fourth one, which was designed to clarify precisely this aspect, clearly indicate that at least on the immediate level of perception there is no fusing of information delivered through sensory and extrasensory channels. As mentioned above, ESP messages neither fused with visual signals nor with those inner signals which induce a person to act in accordance with preexisting action tendencies.

Hence, the ESP channel seems to differ essentially from the known sense organs. Of course, this would not preclude the possibility that on the highest level of cognitive elaboration ESP messages are brought in line with information communicated through exteroceptive or proprioceptive channels, as will indeed be discussed below. Yet, on that level of input identification and elaboration which was induced by our experiments, these higher cognitive processes could hardly take place. Sensory perception and ESP remained distinct as far as the subject's reaction was concerned. Of course, the absence of fusing between sensory perception and ESP does not necessarily imply that their respective discernments are totally independent of each other. ESP has to compete with sensory perception for the conscious or preconscious attention of the subject. In this sense, ESP information and sensory information can be viewed as signal and noise, respectively. Since ESP is obviously a weak signal, it may be discerned only or mainly on the background of a low perceptual noise level. The required low noise level can be attained through reduction in situation-relevant inputs, both exteroceptive and proprioceptive ones, and/or through a difference in message content.

Both of these conditions were present in our experiments. This is particularly true of the second condition, viz., a sharp contrast between the content of the sensorily transmitted information and the extrasensorily transmitted information, which proved highly effective as far as the communication of the latter was concerned. In the popular ESP experiments with Zener cards, only one of the mentioned conditions is met, namely, the reduction of situation-relevant sense data through the experiment. This may be one of the reasons for the frequent failure of these card experiments. However, the analysis of differences between our experimental conditions and those of the typical Zener card experiment may provide another clue which could help to optimize ESP observation. The card experiments invite guessing while the makeup of our experiments clearly discourage it. Guessing is, at least in our culture, a highly frequent activity, and a well-established habit. The games we play with our children educate them to guess whenever adequate

information is missing. And our probabilistic interpretation of nature may further strengthen guessing tendencies. Experiments in probability learning, carried out by Kreitler, Kreitler, and Zigler (1973), indicate that children with strong inclinations for guessing also show marked guessing habits.¹⁰ In the Zener card experiments guessing habits of this kind may constitute a strong background of noise against which the weak ESP signal hardly stands a chance to be discerned. We venture the hypothesis that guessing situations impair ESP and therefore we suggest searching for ESP under conditions which discourage guessing.

As mentioned in the above summary of our findings, although a transmitting sender is more effective than a sender merely thinking about a specified outcome, the thinking senders also proved effective to a certain extent. This finding suggests a problem which deserves consideration. In everyday life there are a great many situations in which one person knows the outcome and may think about it while the others concerned do not know it. Why then do we so seldom experience or observe telepathy? For those of us who obtained proof of the existence of ESP the most plausible explanation would be the claim that telepathy is not at all rare, but is rarely perceived as such. Most people believe that they understand their world and many of them tend to avoid cognitive dissonance. The intervention of an unexplained phenomenon like ESP would create a cognitive dissonance and hence would either be ignored or interpreted in line with accepted concepts like intuition, chance guessing, and subliminal perception. In the latter case the higher cognitive processes involved in dissonance resolution could even promote fusing between sensory information and ESP. Incidentally, it should be mentioned that women tend to succumb less than men to cognitive dissonance pressure and hence should show greater readiness to accept ESP phenomena consciously.¹¹

The results of our experiments suggest a further explanation for the relative rarity with which ESP is noted in daily life. When the data of our experiments were analyzed globally, only the findings of one study were slightly significant, while the findings of the other three did not attain the level of significance. The highly significant results of ESP were obtained only when the data were analyzed separately for different experimental conditions, for different stimuli, or for subjects with different prior reaction tendencies. In other words, even in experiments designed for studying ESP the signal/noise relation between ESP and sensory background noise is so unfavorable for ESP that only sophisticated methods of analysis may help in unravelling the phenomenon. These methods cannot be applied in everyday life situations. Hence, it may be surmised that signals communicated through the ESP channel will not be picked up and used for guiding

reactions unless favorable conditions created by experiment, accidental situation or culture prevail.

Summing up our findings, favorable conditions for ESP seem to exist if:

1. a sender tries to transmit an information relevant for a potential perceiver, or if the sender at least concentrates on this information;
2. the potential perceiver is likely to attend to weak exteroceptive or proprioceptive inputs;
3. the ESP signal gains in discernibility by conveying information that differs from informations conveyed through sources within or without the organism and perceived at the same time;
4. the situation does not invite guessing and/or the potential perceiver does not tend to guess in accordance with previously developed guessing habits.

We believe that our culture, the culture of the Western world, is characterized by an atmosphere and qualities which do not promote the above-mentioned conditions propitious for ESP. The relative ease with which messages can be transmitted in our culture by telephone, cable, letter and other devices reduces the chances for the occurrence of situations in which a person may try to communicate an information by reliance on psychical abilities or even by the mere wish that another person may know it. It goes without saying that in this respect also the general disbelief in ESP acts as a negative inhibiting factor, although we assume that it is less influential than the habitual reliance on technical communication media. Moreover, neither education and dominant attitudes nor conditions in our social and physical surroundings promote attending to weak inner signals stemming from unidentified sources. However, if attending to this kind of inner signals is strengthened, as in the psychoanalytic treatment situation or in dreams, then ESP occurs more frequently.^{12,13} Similarly, tasks which have to be dealt with without possible reliance on clearly discernible supraliminal stimulation from without or from within are habitually coped with by guessing or by probabilistic considerations. Finally, attainment and maintenance of cognitive consonance are held to be virtues in Western culture, while the acceptance of cognitive dissonance is seen as deviant and dangerous. Therefore, the striving towards cognitive consonance may impair the detection of those very weak ESP signals, which are discernible only because their informational content differs from the informational content of other stronger signals concomitantly present. Moreover, in cases where an ESP signal is picked up and/or reacted to, there would be a strong tendency either to explain it away in line with Western scientific thinking or to hide the incident. In short, the chances for a successful field study of ESP are not too favorable in Western culture.

But which culture does our criteria designate as more suitable for anthropological studies of ESP? Our experiments demonstrated that belief in parapsychological phenomena is not a necessary condition for the manifestation of ESP. Of course, the cited findings did not disprove the "sheep and goats" hypothesis. Still we doubt that the anthropologist would be well-advised to single out for his research those cultures which particularly emphasize belief in the supernatural. Our doubts stem both from personal observations as well as from general considerations. Those of our experimental subjects who were born in Arabic countries and educated by parents who still stick to the Middle-Eastern tradition, including the belief in charms and ghosts, performed no better in our experiments than their colleagues of Western descent. The argument that Middle-Eastern Jews in Israel are already westernized, even in regard to their attraction towards the supernatural, does not seem pertinent. Recently Dr. Arieh Kruglanski, a social psychologist in the psychology department at Tel-Aviv University, found that the percentage of students of Middle-Eastern descent who were willing to volunteer for ESP experiments and to study ESP was two and a half times as high as the percentage of Western students.

Yet, to our mind such incidental observations should carry much less weight than the following more general consideration. The same psychological and sociological factors which in a culture antagonistic to parapsychological phenomena promote the tendency to rationalize away ESP are also evident and active in a culture emphasizing the existence of psychical phenomena, but here they subserve the opposite end: phenomena of normal perception may be mistaken for paranormal and reported as manifestations of ESP. Therefore, we venture to suggest that one of the criteria for selecting a cultural site for anthropological observations of ESP should be the neutrality of the culture with regard to ESP. Neutrality would mean the willingness or readiness to accept ESP phenomena without trying to explain them away or to fit them into a tightly built system of supernatural beliefs. This kind of neutrality borders closely on a certain degree of equanimity insofar as events in the external world and the power of supernatural entities are concerned. However, this neutrality would and should not prevent people from actively trying to transmit a message mentally. Of course, the greater effectiveness of the active transmitter as compared with the mere thinker would be of greatest utility in a culture which does not yet possess or does not exploit technical media for rapid distant communication.

Another feature highlighted by our experiments as an important characteristic of a culture favorable to ESP manifestation would be greater tolerance for informational ambiguity and cognitive dissonance than is the case, say, in our own culture. Such an attitude towards ambiguity and

dissonance would increase the probability of reacting to ESP signals which differ from the strong background noise only by virtue of their informational content. Many tests are available for determining the degree of tolerance for ambiguity and intolerance for cognitive dissonance. Yet most of these tests are culture-bound and of small utility for the anthropologist set upon selecting an ESP-favorable culture. Therefore, we suggest the use of a more modest and easily applicable criterion, based on our theory of cognitive orientation, namely, absence of emphasis on the necessity for attaining, maintaining and manifesting cognitive consonance, or—expressed in positive terms—belief in the possibility and value of contradicting ideas.

After detecting such a culture, two strategies could be adopted. The one would consist in looking for situations in which an ESP message is likely to contrast sharply with actual stimulation from without and within. The second strategy would be to study individuals or groups that deviate from well-established patterns of behavior, by force of some sudden impulse. These sudden departures from well-established habits may be caused by an ESP signal which, due to its contrast with the inner stimulation eliciting the habitual behavior, is strong enough to evoke a response, even if the people concerned remain unaware of the fact that they acted because of ESP.

Apart from contrast in information content, the effectiveness and discernibility of ESP depend also on the ratio between the strength of ESP and the strength of other present signals. Attention naturally plays a role in determining this ratio. Assuming a more or less equal strength of ESP signals across individuals, the ratio of strength would be unfavorable for ESP in a culture which supplies a lot of stimulation and emphasizes the importance of dependence on stimuli. This statement may sound trivial, but it loses some of its triviality if we remember that not only stimuli from the surrounding environment but also stimuli from within the organism compete with ESP. Yoga, for instance, educates its disciples to pay special attention to physiologically elicited stimuli. Since even the relaxed body is permanently active and stimuli-generating, the especially heightened awareness towards these internal processes could produce a strength-ratio rather unfavorable for ESP. To the best of our knowledge, there exist relatively few reports concerning ESP experiences by persons engaged in yoga exercises. On the other hand, neither does the different kind of relaxation practiced in the Western world seem to promote ESP experiences, probably because of reduced attention. Therefore, we conclude that ESP experiences are best served by a culture promoting a state of mind of devoted attention without reinforcing the temptation or inclination towards guessing.

We are well aware of the fact that we managed to deduce from our experimental findings only very few hints for anthropological research of

ESP. Yet it should be kept in mind that we concentrated almost exclusively on our own experiments. There are a considerable number of other ESP experiments with positive results which, if analyzed in the same or a similar vein, could reveal further ESP characteristics useful for the anthropologist.

However, the use of such a rather cumbersome indirect method could be contested through a familiar argument. It could be claimed that manifestations of telepathy in the modern world are only the poor remnants of what had once been an important means of communication. Technological developments and the contingent change in attitude towards a metaphysical conception of the world have promoted reliance on other means of communication, thus causing a progressive degeneration of the less and less used ESP channel. Since this process has not advanced in more primitive cultures as much as in ours, it would suffice to use primitiveness in the development and use of technological means of communication as the only criterion for choosing a culture as target for anthropological ESP research. This research should be carried out without being biased through the results of modern ESP experiments which, due to the degeneration of ESP capacities in the modern world, may mislead the anthropologist.

To our mind this argument is, on the one hand, utterly unfounded but, on the other hand, offers the welcome opportunity for discussing the probable past and future of the ESP channel. We have mentioned earlier that ESP as we know it cannot compete with other media for long-range communication like shouts, words, drum or sign signals, etc., not to mention the telephone, radio, and television. However, there must have been a time in which these means, including the necessary social organization, were not yet developed well enough to secure long-range communication whenever it was imperative for individual and group survival. Given ESP capacities as a common property of primitive man, or what would amount to the same, as a property of some especially gifted individuals, natural selection would have promoted the ESP channel for retaining or attaining the extremely valuable ability to receive help whenever needed. Up to the twentieth century, well-developed ESP capacities would have been far superior to any hitherto available means for human communication. Why then was it neglected in favor of other—then inferior—means of communication? Moreover, if due to reasons unknown to us, it was neglected for ten thousand years, why does it still exist as a weak but clearly manifested capacity in the subjects of our experiments, not to mention those people who have been observed to exhibit impressively strong ESP talents?

We are not in a position to answer these questions by an argument or evidence which would support the hypothesis from which these questions arose. But we venture to hypothesize that what has hitherto been known as

ESP phenomena, in particular telepathy and clairvoyance, is only the secondary manifestation, a kind of by-product, of a force or mechanism which primarily fulfills some vital function within the living organism of humans and animals. Since ESP, the secondary function, is a cognitive process, we also assume that the primary function is related to cognition. In fact, the scientific endeavor to understand cognition is badly in need of a new paradigm. Neither the traditional psychophysiological approach nor models derived from the digital computer seem likely to cope adequately with the enormous complexities of memory scanning, information retrieval and productive thinking. They do hardly more than graze these problems. Physicists when faced with a similar deadlock in their field would not hesitate to embark on daring speculations about a new force which could solve their problem. Claiming the same privilege for psychology, we hypothesize that the same force or process responsible for the occurrence of a specific, precise thought or image, out of the millions of possible ones, in the minds of two individuals spatially distant from each other, is the most likely and promising means for explaining how, out of millions of items stored in a memory, precisely that item is retrieved which is needed for the productive solution of a new problem, and how in both cases this occurs as an instant flash of intuition.

However, our hypothesis that the ESP-underlying force is intimately involved in cognitive functioning does not in any way preclude the possibility of parapsychological manifestations in animals and even plants. Indeed, one does not have to assume higher cognitive processes in animals or plants in order to understand the often-mentioned observations of ESP on the subhuman level. These observations are rendered plausible by reference to two basic psychobiological principles. The first is that any psychological process or function of major importance on the human level has its roots in lower levels of organic existence and hence may be detected in some form—usually simpler, sometimes transformed or analogous—on the level of animals and even plants. This statement is valid for the functions of learning and thinking no less than for sensing and feeling. The second principle is that any psychological function which on the subhuman level may be carried out without the full involvement of higher cognitive processes, is on the human level fully dependent on cognition. For example, while there is no doubt that worms, animals devoid of a cortex, possibly even the paramecia and amoebas, may undergo conditioning successfully, there is even less doubt that in humans conditioning proceeds with the help of distinctly cognitive processes like linguistic coding, hypothesis-formation, hypothesis-testing, decision-making, etc. The same goes for abstraction, generalization, and emotional responding. Incidentally, even in

humans, when higher cognitive abilities are impaired temporarily or permanently, many basic psychological functions are nevertheless carried on a lower level without involvement of the impaired abilities.

In view of these two principles it is evident that on the human level ESP phenomena may be closely allied to cognitive functioning, while on the subhuman level the same phenomena may occur without involvement of cognition or with the involvement of what is on that low level the analogue of the higher cognitive processes.

Hence, it is not implausible to assume that the reason why the human ability to produce ESP phenomena did not degenerate is that the very force underlying ESP serves other highly important cognitive functions which are hardly understood at present. In contrast to Lévi-Strauss, psychologists like Freud, Piaget and many others, ourselves included, are convinced that all human cognitive abilities have developed in the course of millennia and are probably still developing, possibly even at an increased pace. If this inference is correct, the above-mentioned hypothesis that the ESP-underlying force fulfills major cognitive functions implies that ESP phenomena are not declining. On the contrary, all other factors being equal, they should become more abundant and pronounced in the future.

Psychology at present has no means to test the first hypothesis which claims a developmental decline of ESP, or the second (contradictory) hypothesis, which claims a progressive increase in ESP capacities. In contrast, anthropological research could shed some light on this question, provided that research is not guided by the oversimplification of automatically equating primitive cultures with lower cognitive activity and cognitive effort. Cognitive development results in widening of memory, in refinement of strategies for memory retrieval, in adopting more complex methods for problem-solving, in constructing and using more elaborate concepts, and—last but not least—in an increasing sensitivity for problems which require productive thinking. Richness of memory and strategies for retrieval and problem-solving are relatively difficult to investigate. But it is well within the scope of anthropological research to obtain, for example, some observational material pertaining to the question of whether ESP is more abundant in cultures which directly or indirectly promote cognitive activities than in cultures which do not. As long as neither of the two hypotheses claiming increase or decrease in ESP received any support, it is, to our mind, unfounded to regard cultures as particularly suited for ESP research merely because of their relative primitiveness.

From the viewpoint of anthropology, psychological ESP experimentation has the advantage of being able to produce ESP phenomena in the lab, to measure their frequency and strength, and to determine their charac-

teristics. From the viewpoint of psychology, anthropological research has the great advantage of being able to study ESP phenomena in different situational and cultural contexts, thus avoiding the dangers inherent in the sterile surroundings of the laboratory and in isolation and control of variables. These and other mutual advantages strongly urge the combining of resources. If, as we have tried to show in this lecture, the results of psychological ESP experiments could provide useful clues for anthropological investigations of ESP, the positive and negative results of these investigations will provide feedback to the psychologist by presenting him with a host of new hypotheses for further ESP experimentation.

REFERENCES

1. LÉVI-STRAUSS, C., *The Savage Mind* (Chicago, Ill.: University of Chicago Press, 1966), p. 130.
2. KREITLER, H., AND KREITLER, S., "The Model of Cognitive Orientation: Towards a Theory of Human Behavior," *British Journal of Psychology*, 63 (1972), 9-30.
3. ———, "Does Extrasensory Perception Affect Psychological Experiments?" *Journal of Parapsychology*, 36 (1972), 1-45.
4. ———, *British Journal of Psychology*, *loc. cit.*
5. ———, "Subliminal Perception and Extrasensory Perception," *Journal of Parapsychology*, 37 (1973), 163-188.
6. *Ibid.*
7. WAPNER, S., WERNER, H., AND CHANDLER, K. A., "Experiments on Sensory-Tonic Field Theory of Perception: I. Effect of Extraneous Stimulation on the Visual Perception of Verticality," *Journal of Experimental Psychology*, 42 (1951), 341-345.
8. McCLELLAND, D., AND ATKINSON, J., "The Projective Expression of Needs: I. The Effect of Different Intensities of the Hunger Drive on Perception," *Journal of Psychology*, 25 (1948), 205-222.
9. SCHACHTER, S., "Cognitive Effects on Bodily Functioning: Studies of Obesity and Eating." In D. C. Glass (Ed.), *Neurophysiology and emotion* (New York: Rockefeller University Press and Russell Sage Foundation, 1967), pp. 117-144.
10. KREITLER, S., KREITLER, H., AND ZIGLER, E., "Probability Learning and Curiosity." Unpublished manuscript, 1973.
11. GLASS, D. C., "Theories of Cognitive Consistency and the Study of Personality." In E. F. Borgatta and W. L. Lambert (Eds.), *Handbook of Personality Theory and Research* (Chicago, Ill.: Rand McNally, 1968).
12. EHRENWALD, J., *Psychotherapy: Myth and Method* (New York: Grune & Stratton, 1966).
13. ULLMAN, M., KRIPPNER, S., AND FELDSTEIN, S., "Experimentally-Induced Telepathic Dreams: Two Studies Using EEG-REM Monitoring Technique," *International Journal of Neuropsychiatry*, 2 (1966), 420-437.

DISCUSSION

SERVADIO: Thank you very much, Dr. Kreitler, for a very interesting and, to my mind, a very stimulating paper. Dr. Devereux?

DEVEREUX: I have been very much impressed by some information on these experiments which I was fortunate enough to get from Dr. Kreitler yesterday and I am very sorry that he didn't go into details today. I think that there is a very fruitful line of investigation there. Since most of you are better qualified to discuss that than I am, I will mention only some minor points. I have affection and admiration for Doctors Benedict and Mead, but I would hardly call them exponents of the psychoanalytic viewpoint. But that is a mere passing remark.

Dr. Kreitler made a very remarkable comment, which I think should be taken up in the discussion—that ESP capacities should not be thought of as a sense organ. I think that there may be something to be explored in that direction.

Dr. Kreitler also noted that *some* cultures emphasize the supernatural. Unfortunately, *all* of them do! I think that it may be possible—perhaps, from the viewpoint of the pure rationalist—not to deny that certain phenomena occur. But I cannot call these phenomena ESP because that would mean committing myself to a *theory* which has not yet been formulated. I also wonder if so-called ESP should be thought of as a *capacity*, as Dr. Kreitler seems to think, or whether it should be thought of as a *flaw*: as a major obstacle to the construction of a rational universe. In other words, if there had been reliable telepathy, it would have stood in the way of an early invention of the radio. I think this fact should be considered, because, as I once remarked, it is of no use to a phototropic insect to discover the laws of optics. Indeed, even if it did know all about optics and the properties of heat, it still couldn't stop itself from falling into fire.

KREITLER: First, a short remark about the Demokritos theme. Speculation, which was later confirmed, is science.

DEVEREUX: It was not!

KREITLER: I think here we differ in our definition of science.

DEVEREUX: May I give you a very brief definition of that? ESP theories resemble Demokritos' atom theory. The Greeks knew almost no phenomenon other than fire whose *first* explanation called for the notion of "atom." His atom theory was at best a geometrical, *not* a *physical* theory. As a *physical* theory it was a fantasy, picked out of the void. It became *necessary*, as a *physical* theory, approximately at the time when Lavoisier began his

experiments. I hold that we do not know at present *any* fact whose *first* explanation makes recourse to ESP-type theories mandatory.

KREITLER: I would challenge the statement, but I think it is besides the point. You mentioned a very important aspect of what I tried to make clear in the last paragraph: that ESP would have been an important tool for survival in prehistoric times. Now, on the other hand, if ESP which obviously did not serve communication, has not degenerated to such an extent that it totally vanished, if it is still existing in every human being (and we tested hundreds and hundreds), it must fulfill another function because otherwise it would probably have vanished; and it is one of the present tasks of psychological researchers to find out what could it serve. In my opinion, we have some indications which might be called speculation because they're not yet confirmed, that it serves some functions in memory retrieval and especially memory scanning which can't otherwise be explained. Here, at the moment, we use ESP as an explanatory hypothesis. I use the word ESP in the same vein as you do, with brackets, because I don't know what it is. It is *not*—and this is clear in our studies—it is *not* anything comparable to a sense organ, because information mediated through it, strangely enough, doesn't fuse with sensorily-mediated information.

BRIER: Let me follow this up, about ESP. It probably would have been useful at one time. If it had been useful then, it would have been passed on by natural selection. That's an argument that's been advanced by a lot of people. It does seem to be a logical argument. Aren't there properties that can't be passed on genetically? I mean, for example, if ESP would have been useful, say, to prehistoric man to help him know what's around the corner or something like that, that doesn't mean it can be passed on genetically, and it could die out. It hasn't been demonstrated that every property of man that is useful is passed on genetically, and ESP could be one of those properties that can't be passed on genetically. Right?

KREITLER: Nobody has proved that everything that was useful was inherited. Such proof would be impossible since we don't know what existed then, but what we do know is that traits useful for the struggle for existence were inherited, and we draw the general conclusion that that which was useful was selected. If we reject this, we reject the theory of natural selection.

BRIER: Well, let me make it clearer. This usually holds for physical properties, but ESP is kind of a unique thing which so far hasn't been tied to physical properties, and one of the things that's interesting about ESP is it seems to be independent of physical parameters. Time and space don't

seem to affect the performance of this ability. That's why I suggested this may very well be the kind of thing that can't be passed on genetically. Of course, this will hinge on whether one is viewing the organism as purely a physical entity or as a physical plus something else.

KREITLER: I could not accept this statement because, for instance, the ability to form sentences—not to pronounce phonetically but to build a sentence—the ability to grasp or pick up a language, etc.—this whole set of cognitive abilities, to the best of our knowledge, has hitherto not been shown to be a merely physiological phenomenon and all researchers who tried to prove this have failed.

BRIER: Agreed.

KREITLER: So I wouldn't judge ESP differently than I judge the capacity of human beings to learn a language or to think logically to a certain extent, which is genetically transmitted, as is also a greater part of intelligence.

LEWIS: Just a brief comment on the passage that we've just heard. Of course, the argument for the preservation of those adaptational selection traits which are advantageous really has a quality of sort of cosmic rationalization. It has some degree of plausibility; it is in the framework of the physical features of human evolution, but when one is discussing something like this, I think it becomes a little bit more difficult to pin down and to give any substantial reality to. However, I wanted to ask a question of Dr. Kreitler and I apologize if he dealt with this in the beginning of his paper which I unfortunately missed, but I wondered to what extent he had found or taken account of situational factors affecting different ethnic responses in his experiments. The point I have in mind is that I would anticipate that the situations in which the members of various ethnic communities in this room found themselves would have a very strong influence not only on their total system of perception, on their view of themselves and their view of the world, but I feel it would also influence any experiments relating to extrasensory perception. I wondered if Dr. Kreitler found this. It's not just the ethnicity and the culture that people have as part of what we lump together under the umbrella of the term ethnicity, but it is the situation in which they are placed. For instance, you mentioned Jews from North Africa who come to settle in Israel. Their situation is different from that of, say, Jews from Central Europe or even recent Russian immigrants. You have the ethnicity factor, but you also have different situational factors. Did you control for this?

KREITLER: We used as subjects in our experiments, as I mentioned,

students who came from different cultures. But experimentally, they were all in the same situation. They had to react in the usual experiment without knowing that it was an ESP study. Now, to our great amazement, we found no difference in the performance of the European group and the so-called Middle-Eastern, or, as we call them, Oriental group. But afterwards when checking for their private beliefs, we did find differences. That means the "sheep and goats" hypothesis was not confirmed. But I would not dare to make any general statement about ESP in these groups outside our lab. I have to restrict myself to what we observed and not to what I would or would not guess. Anyhow, belief in ESP obviously did not play any part in our experiments, and the subjects did not know that they were engaged in an ESP experiment.

LEWIS: Can I just briefly comment on that, very quickly? That's very interesting, of course, that although the experimental research situation may be held constant, it is nevertheless the case that people who come into the situation bring with them situational factors which are not parts of or partial to the context of the experiment. For instance, if you submit an illiterate beggar to the same experiment as a highly civilized urban sophisticate, although the situation of the experiment may be the same, the situation of the two tested people is entirely different.

KREITLER: I have one case in which this was true. I couldn't mention it in the lecture. When word got around that we were doing these experiments, two professional healers, ESP people from London, came to Tel Aviv to participate in our experiments. We couldn't, of course, include them in our sample because they knew our purpose. One acted as sender and the other as perceiver, and vice versa, and they did something astonishing. They worked exactly on chance level. The only people who really managed, I would say, three consecutive zeros on the chance level. Of course, we laughed and they laughed, and we asked them "What do you think about these results?" And they said, "You see, your set-up may have shied away our ESP capabilities." Of course, if you suddenly expose people who are not used to experimentation to an experimental situation, this could produce what we would call strong background noise which would make it difficult for the ESP signal to come through.

SERVADIO: Professor Smith?

SMITH: I found your paper extremely interesting and I would like to raise one point. You speak of ESP as a "weak signal." Perhaps it is a weak signal usually, but it seems to me that on occasion, it becomes an extremely strong signal and so I wonder if that should not be qualified. For example, I

usually have very little ESP, but once there were two fortune cookies in front of me and I suddenly knew that one particular one was extremely significant; this knowledge was very strong, so I question the term—the absoluteness of the term “weak.”

KREITLER: I mentioned ESP as a weak signal in the average subject who does not know that he is involved in an ESP experiment. This does not exclude the extraordinary performance of subjects especially gifted for ESP. The main lesson we learned from our experiment was that even in randomly chosen subjects a weak ESP signal can become effective provided that experimental conditions make possible a reduction of external and internal noise.

SERVADIO: Professor Hardy.

HARDY: What I am saying now is really speculation, and not scientific. To go back to its possible biological significance, as I've often said before, if ESP is a reality, and I believe it is, I find it very difficult to imagine it being confined to just one species of animal, i.e., man. I should think it far more likely that it is something much more universal, which may be subconscious and may be something like a shared behavior pattern in a particular species. This is, as I've said, not essential to my discussion of the importance of behavior as an evolutionary selective force, but it might be an additional factor. It may be that only a limited number of human beings are really conscious of what is something much more fundamental. That's only speculation though.

KREITLER: In the original paper which was too long to be read here, I discussed this point. We believe that it is not a unique trait of human beings, but exists, as all cognitive processes do, on a lower level of performance, namely, animals. We wouldn't dare to say something about plants.

HARDY: Carington put forth this idea of shared behavior patterns before I did, I found.

DEVEREUX: I'm concerned about one thing, namely, about the assumption that the subjects did *not* know that they were engaged in ESP. In terms of ESP theory could they not have known, *by ESP*, that they were engaged in an experiment on ESP? I'm afraid this is a very serious problem, if you believe in ESP.

KREITLER: Subconsciously, they could have known. After two or three months, I would say that some subjects already knew that something strange was going on with these far-distant signal systems between the two

rooms. Some probably did suspect an ESP experiment. But we tried to disguise it not only by the control runs, but also by the fact that the same experiments were carried out by many other assistants without the involvement of any ESP. We can't exclude subconscious feelings on the part of subjects that what they are doing is ESP. This we couldn't do, of course. Anyway, we couldn't control for it. What we controlled were conversations in the cafeteria, etc., and there was no indication that the students knew anything about the purpose of our experiments.

THE ANTHROPOLOGIST'S ENCOUNTER WITH THE SUPERNATURAL

IOAN M. LEWIS

I

There must be few anthropologists who have not had a brush with the supernatural in the course of their field work in the "high-spirited," exotic communities which they customarily study. Such encounters have, moreover, often been as unexpected as they were unsolicited. Let me give a few random illustrations. Recalling his field work in Ireland many years ago, the very serious American anthropologist, S.T. Kimball, has recently described how he encountered a ghost at his hotel.¹ This meeting, he tells us, turned out to be very fortunate, for it finally convinced his Irish informants that their anthropologist was, after all, a normal human being (and that, of course, is one of the most difficult things for the anthropologist to achieve). Other anthropologists have heard the wail of the banshee, seen mysterious lights in the night, and witnessed amazing cures. Even very sceptical anthropologists have had daunting experiences. Illnesses or misadventures after slighting or quarreling with a local witch doctor or medicine man are frequently reported. Certainly there are few of us who could cross our hearts and honestly say that we had not felt discomfort, qualms about what might happen, when threatened with cursing—or the evil-eye. A very distinguished psychologist told me recently how, when he was working in West Africa, a fetish priest once threatened to kill one of his children (who was incidentally thousands of miles away). My friend, who is a very firm sceptic, confesses that he felt acutely uncomfortable, resisting the blackmail but guiltily thinking: "What if there is something in it." On a happier note, I can recount a personal experience involving more benevolent powers. In the course of carrying out research amongst the Muslim Somali of northeast Africa I spent a lot of time visiting the shrines of the most famous local saints. These, of course, are a potent source of *baraka*, that miracle-working energy which brings life and blessing. The fact that I now have four children has, as I have heard on a number of occasions, been ascribed by Somalis to my prudent piety in communing so closely with their saints. So, whether they like it or

not, anthropologists are drawn into the web of the mystical beliefs they study. How they respond is another matter.

"The anthropologist," Edmund Leach primly asserts, "rejects the idea of supernatural forces."² He should know. He is President of the Royal Anthropological Institute and of the British Humanist Association. However, the matter is far from being as simple or straightforward as this. The truth is rather that the anthropologist's credulity (or incredulity) is often highly selective. It is very noticeable, for instance, that anthropologists (even those who are avowed agnostics or atheists) have been much more "objective" and analytical in their treatment of topics like witchcraft or sorcery than in that of other, less immediately implausible, mystical experiences. So, for instance, precisely because it does *not* take their faith at face value, Evans-Pritchard's classic study of witchcraft among the Zande people of the southern Sudan³ is, paradoxically, able to show how such a closed system of ostensibly untenable beliefs makes sense. The author, a highly sophisticated Catholic, does not seem to find it necessary to spend quite as much time justifying the *theistic* religion of the Nuer.⁴

These two famous books *Nuer Religion* and *Witchcraft, Oracles and Magic among the Azande* make, indeed, a most interesting contrast. Whereas the Zande study is filled with references to "scepticism," this word hardly occurs at all (so far as I can discover) in *Nuer Religion*. Interestingly enough, the scepticism referred to is actually mostly that of the Zande themselves. Indeed, it is quite clear that the Zande, at a certain level of experience, see their witchcraft with precisely the same analytical clarity as Evans-Pritchard. They know as well as he does that it is a philosophy of misfortune and a strategy for the release of social tension. They too fully appreciate that witchcraft is a pseudonym for malice, envy and spite. Evans-Pritchard's approach, it will be understood, is very different from the recent sorcerer's apprenticeship so evocatively described by Carlos Castaneda in *The Teachings of Don Juan*.⁵

Up to a point then, I am suggesting that Evans-Pritchard's scepticism about witchcraft and that of the Zande happen to coincide. In other cases, we find credulous anthropologists shocked by the irreverence and scepticism of their informants. Shamans, for instance, like the sceptic encountered by Lévi-Strauss in South America, who do not really believe in their own powers. But they do believe in the authentic shamanistic powers of *other* shamans. Somebody, somewhere, is a true, genuine exponent of an art which others can only sham. This selective scepticism is familiar to us all. More recently, as in the case of Carlos Castaneda, the boot is on the other foot. The disinterested, "objective," scientist returns to his own world a convert to the exotic beliefs he has studied. Actually, as I have argued in *The Anthropologist's*

Muse (1973), anthropologists are always more influenced by the people they study than they think.⁶ And certain younger anthropologists, at least, thus find themselves more in tune with contemporary trends than that stern guardian of the old rational order, Edmund Leach, whom I quoted earlier. For, as everyone here will appreciate, today western cultures export Marxism and import oriental mysticism. Our traditional God having withered away, the stage is cleared for the appearance of novel, exotic supernatural forces. The baneful influence of this in the field of parapsychology has been brilliantly delineated by Dr. Eric J. Dingwall (1972).⁷ The God you don't know is very much more attractive than the one you do.

II

What has been said will I hope establish that the anthropologist's encounter with the supernatural is decidedly ambiguous, even problematical. The same is true, I believe, of all the evidence the anthropologist can adduce relating to the supernatural. It is, of course, true as Dr. Van de Castle (1973) argues, that: "non-Western societies will display more frequent examples of psychic phenomena because of their strong belief in such phenomena and because greater cultural sanction exists for participation in altered states of consciousness."⁸ But what of it? This scarcely produces confirmatory evidence in any scientific sense. A much more impressive test would be a high level of psychic phenomena among sceptics! It would require a voluminous study to demonstrate this bold claim across the whole field of supernatural phenomena. So I shall have to restrict myself to a particular topic, and thus choose what I think many people would agree is the most impressive psychic evidence of the divine—that dramatic invasion of the human body we call "spirit possession." Since this is a particularly confusing and controversial topic, we must begin with a few definitions.

First, possession is a state of mind and being, or rather it is an interpretation of a person's condition, which may or may not be shared by other members of the "possessed" subject's community. It may or may not coincide with trance. As a culturally conditioned phenomenon, possession may be diagnosed in someone who is far from being in a state of trance, or altered consciousness. Contrariwise, trance may not be interpreted as possession. Nevertheless, in most cultures in which possession by God, spirits, or devils is a common event, possessed people are likely to experience trance.

Second, for all its gloriously subjective exaltation, possession bears the stamp of the culture where it is experienced and the social circumstances in which it occurs. It is both a cultural and social fact, as amenable to sociological and anthropological study and interpretation as any other cultural and social phenomenon. Its incidence is thus just as open to scrutiny

—without prejudice to the quality of the subjective experience—as is that of, let us say, suicide.

Third, the ecstatic states which a variety of cultures choose to interpret as possession can be achieved or induced in many different ways. We are currently very conscious of the use (and abuse) of powerful hallucinogenic drugs such as LSD. Indeed, then there is a strong temptation, vigorously pursued by that well-known “mushroom-man” R. Gordon Wasson (and others), to look everywhere in man’s past as well as present existence for a common set of chemical stimulants. But we should not forget that while mankind, in many places at any rate, has always had ready access to drug-induced mysticism, the same effects can be produced in other ways. There are many well-tried routes to ecstatic agony—including those we now lump together as sensory deprivation. We must not get bogged down in biochemistry or physiology.

These assertions help to clarify a number of persistent confusions and false problems in the literature. Even the most antireligious of anthropologists betray a touching anxiety to discover whether what they witness in the field is or is not “true possession.” Are the magnificently abandoned figures, with their wildly thrashing limbs and their glazed eyes *really* “possessed”? Or is it all a sham, like the old tricks of the “charlatan” shaman? Perhaps these anthropologists feel they are entitled to their money’s worth and fear they may not get it! But the source of their confusion is their inability to distinguish between “trance” and “possession,” and their quaint supposition that there is some universal touchstone by which to identify and assess the authenticity of mystical experience. In fact, this can only be determined by the individual subjects and the other members of their culture. Whether people are or are not in trance can, with some difficulty, be established cross-culturally. But only God and the members of the religions concerned are competent to judge whether those who claim to be possessed really are!

This obsession with authenticity continues to bedevil the most recent anthropological discussions of spirit-possession and shamanism, thus continuing a tradition that gets back at least to the misconceptions of Mircea Eliade (1951).⁹ In their most recent writings both Mary Douglas (1970) and Erika Bourguignon (1973)¹⁰ stress what they take to be a critical distinction between “voluntary” and “involuntary” ecstatic states. This is simply a reformulation of the allegedly critical dichotomy between “authentic” and “inauthentic” or “positive” and “negative” possession. One might be forgiven for thinking that electricity was under discussion. The trademark of “authentic” or “positive” or “voluntary” ecstasy is that it is represented as a desired, approved state of exaltation. It is a beatific experience and therefore divine. The opposite is feared and is therefore a manifestation of hostile, evil

powers. Each of these contrary experiences entails a contrary cult, even must exist in a different society. This, frankly, is arrant nonsense. Have these writers never heard of "bad trips"? Are they unfamiliar with that basic psychological principle—ambivalence? Have they forgotten the old cliché of the "agony and ecstasy"? The answer of course is, apparently, yes, and they have thus allowed themselves to be misled by incomplete ethnographic data.

The truth, as I have tried to explain elsewhere,¹¹ is that typically these are simply different phases, or episodes, in an ongoing spectrum of religious experience. What begins as an "unsolicited" intrusion, even as an illness, or psychic trauma, usually ends as a glorious communion with the divine. The wild spirit which to the patient's consternation seizes hold of him, becomes gradually domesticated. In more familiar parlance, perhaps, the patient learns to live with his problems. And affliction endured and overcome becomes a source of strength. For only those who have themselves suffered the violent pangs of first possession and mastered them can diagnose and treat the same symptoms in others. The parallel with induction into the psychoanalytic fraternity through a training analysis is obvious. I want to emphasize, however, that possession is not simply a primitive psychoanalysis. Rather psychoanalysis is a primitive form of shamanism.

Finally, before we proceed to our findings and conclusions, a few more remarks on the question of the "authenticity" of mystical experience. Faced with the many competing claims of mystics in rival religious traditions, various tests have been suggested. One of the ostensibly most culture-free and reliable of these puts the onus of proof on the subject. The more the latter struggles to resist the call, the more we should be impressed when, at last, he does succumb. For that, we are told (among others by Professor O'Brien, 1965),¹² is the true sign of true possession. Those who accept this view fall into the trap cunningly prepared for us by ecstasy.

I am prepared to assert that in all settings where ecstatic experiences flourish, this is the standard convention signifying the onset of the ecstatic career. And being a convention, those concerned know how to produce the appropriate manifestations. It follows that what appears in the guise of extreme reluctance may in fact be extreme eagerness. This consideration creates serious (and I think insuperable) obstacles for those who would seek to establish a reliable register of "authentic" mystics on a global basis.

III

We are now in a position, at last, to confront the facts. Any thorough, unprejudiced cross-cultural investigation will reveal two outstanding features. The first is that, with certain exceptions,¹³ men uncharacteristically here cede pride of place to women who dominate the ecstatic scene in most

religions. The second is the universal currency of sexual imagery to describe ecstatic experience.

There is a great deal of evidence which shows that women are especially prominent in subsidiary "mystery" cults. These often have a highly rebellious content, and express difficulties which women experience in their relationship with men, particularly in accepting the subordinate position traditionally assigned to them. Deprived of power and of words which carry weight in the councils of men, "inarticulate" women are seized by spirits which unmistakably give tongue to their complaints. To this extent they are the authentic, if seldom recognized, founders of Women's Lib. Such cults frequently expand their membership to include men of low status (e.g., slaves or ex-slaves)¹⁴ or those with individual personality problems. The membership of these movements thus provides a regular commentary on the prevailing social conditions. Changes in the one are reflected in the other.

Let me give two examples which I have not employed in my book *Ecstatic Religion*. The first concerns the thriving Umbanda cult of contemporary Brazil, as described recently by Esther Pressel (1973),¹⁵ working in São Paulo. Dr. Pressel reports that here (as elsewhere) possession states in a novice are usually provoked by difficulties experienced in trying to fulfill expected roles. One of her main informants was a 52-year-old mulatto woman of rural origins, who after a stormy childhood moved to São Paulo when she was seventeen and married when she was twenty. At first things went well and the couple had three children. Later her luck changed. Her husband became quarrelsome after losing the bar he had been running; the eldest daughter died when her mother was twenty-eight, and her twin brother was killed in a motor accident the following year. Friends advised her to seek spiritual aid at an Umbanda center. There she was urged by a spirit to seriously consider becoming a medium, which, after further spiritual encounters, is precisely what she did. One of the spirits who descended on her during her novitiate was, significantly, a Japanese spirit. He was a prisoner in solitary confinement and desperately concerned to save children from being killed. Clearly his characteristics related quite specifically to this poor woman's personal tragedies. Dr. Pressel records that this Umbanda medium felt that she had been liberated by becoming a medium. And indeed she did. Her spirits had imperiously forced her into a position in which she was often obliged to leave her husband and home several nights a week because of the call of duty.

Now the question of the way in which Umbanda relates to the wider sociocultural setting. Umbanda is a dynamic movement changing as Brazil changes. The older Candomblé cult was frankly African in its orientation and involved direct possession by the West African *orishas* imported with the

original slave colonies. In Umbanda, which is Brazilian rather than Afro-Brazilian in the identity it projects, the *orishas* have, as Pressel puts it, been "kicked upstairs" to a more remote, if loftier, position from which they send spirit emissaries. Since the late 1920s, as Brazilian ethnicity has developed, four major classes of spirits have emerged in Umbanda. One represents the African element; another, the Amerindian; a third, European influence; and a fourth, very appropriately characterized as that of an innocent child, seems to symbolize the nascent new Brazilian identity.

My other example, which again is not restricted in its membership only to women, is the fascinating Cuban Santeria cult to which my attention was first drawn by Mrs. Joan Halifax-Grof. In its original Cuban form, this cult was patronized by the descendants of Yoruba slaves. However, since Fidel Castro's assumption of power, the cult has become immensely popular among the frustrated Cuban refugee community in Miami. Its adherents there are no longer all of servile origin. On the contrary, its clientele has widened very remarkably to include what is by Cuban standards a strongly middle-class element. For them, however, Santeria has become an alternative expression of Cuban identity in a setting where they feel themselves to be an alien minority, as indeed they are. Deprivation, here as elsewhere, is always relative.

IV

Let me now turn to the second feature which I mentioned as being so striking in these cults: the sexual imagery which they almost without exception employ. The spirits are regularly described as "horses" riding their human "mounts," and women devotees are regularly possessed—in all the most frankly sexual connotations of the word—by their spiritual lovers. This divine intimacy is, too, frequently regularized in formal marriages. A woman cult member or medium thus may, like the Virgin Mary, enjoy two husbands—one mortal, the other entirely spiritual. She may be required to sleep on appointed nights with her celestial spouse, spurning her mundane partner. These unions may even be blessed with issue, again as in the case of the Blessed Virgin, or as with so many of the Greek gods. Those who love the gods clearly feel they are entitled to make love to them.

Now all this is a familiar theme in mystical poetry in the Old Testament, in Islam, and in Hinduism. I wish to assert that, if people (and women in particular) all over the world are using the same vocabulary, namely the language of love, to express their feelings and relationships towards the gods they love, we are entitled to assume that they are all talking about the same thing. I do not mean by this that all their internal emotions are identical, but only that there is a significant area of shared common ground. When St.

Teresa describes the exultant raptures of her Spiritual Marriage she may be more articulate than millions of possessed tribeswomen down the ages. But, how do we know that her feelings are in any significant manner radically different from theirs? Who are we to say that the quality of her devotion is on another plane entirely? Indeed, we might reverse the usual ethnocentric judgment and ask: What can all these dreary Christian spinsters know about love that is not known to their humbler tribal sisters, most of whom have actually known men! Surely there must be an advantage in first loving men—before loving God?

Some will interpret me as saying: Ecstasy is simply repressed sex. I do not deny that the evidence clearly shows that religious enthusiasm has its attractions for sexually repressed women. But I contend that it would be a gross oversimplification to see ecstasy in these terms. The ranks of the enthusiasts include many sexually liberated women—to say nothing of the men involved. Nor, I think, can the men's interest here always by any means be seen as it is among the Tukano Indians of Colombia described by Reichel-Dolmatoff (1972).¹⁶ Tukano shamans employ hallucinogens to achieve ecstatic visions which they explicitly compare to incestuous intercourse. Indeed, the supreme aim of their visionary quest is to be "suffocated," as they put it, in a mystic uterine union. There seems little evidence, however, that the male members of other ecstatic cults always seek to fulfill the same Oedipal fantasies.

Where, in conclusion, does all this lead? Not, I think, in the direction currently being pursued in the Department of Sexology at the University of Quebec where, apparently, researchers claim to have found neurophysiological differences between orgasm and ecstasy. (It would be interesting to see how the Tukano referred to above would make out here.) The much wider and more significant issue is: What does our evidence on possession tell us about the supernatural?

Following the slogan "Spiritualism proves survival," some Christians have claimed that we see here conclusive proof of the existence of God. Weston La Barre (1972)¹⁷ makes a similar claim, though from a radically different point of view. He asserts that the visions of hallucinating shamans are literally the origins of religion. As we have seen, however, though a ready supply of hallucinogenic drugs certainly helps, ecstasy can be achieved without them. So we can dismiss the first part of Weston La Barre's claim. The second part also requires amendment. All the evidence shows that shamanism is not the origin of religion, but of religions. To explain the origins of religion *in any complete sense* it is necessary to explore man's need for religion to which possession and shamanism are responses rather than causes. Of course the ready procurement of rapturous visions helps, as we see

so clearly in the drug-cultures of Western industrial society. For is not seeing believing?

But does all this add conclusive weight to other evidence of supernatural activity? Does it prove that there really are spirits, gods, powers—call them what you like—out there? I think not. It certainly tells us a great deal about the nature of man and his needs, particularly in situations of stress and conflict. It tells us, I would argue, that normal people everywhere are readily capable of ecstatic experiences. And we all know that man, when pressed to his utmost, does need to believe in a “separate reality.” But the wish is after all very often father to the idea as well as to the deed. The stock psychoanalytical explanations (reproduced with great eloquence and persuasiveness by La Barre) which reduce all these powers to projections of man’s unconscious wishes, certainly offer an attractively parsimonious explanation of much, if not all, possession ideology and behavior. However, this can only represent a hypothesis. It does not entitle us to affirm categorically that there are *no* spiritual forces save those that well up from man’s subconscious. It is for that reason that I said at the beginning of this paper that the anthropologist’s encounter with the supernatural seems to me destined to remain ambiguous and inconclusive. I can only hope that the other contributors to this conference will be less pessimistic.

REFERENCES

1. KIMBALL, S. T., AND WATSON, J. B. (Eds.), *Crossing Cultural Boundaries* (London: Chandler, 1972), p. 189.
2. LEACH, EDMUND, *Genesis as Myth and Other Essays* (London: Cape, 1969), p. 9.
3. EVANS-PRITCHARD, E. E., *Witchcraft, Oracles and Magic among the Azande* (Oxford: Clarendon Press, 1937).
4. ———, *Nuer Religion* (Oxford: Clarendon Press, 1956).
5. CASTANEDA, C., *The Teachings of Don Juan* (Berkeley, Calif.: University of California Press, 1968).
6. LEWIS, I., *The Anthropologist’s Muse* (London: London School of Economics, 1973).
7. DINGWALL, ERIC J., “Is Modern Parapsychology a Science,” *Parapsychology Review*, November–December, 1972.
8. VAN DE CASTLE, ROBERT L., “Anthropology and Psychic Research.” In Edgar D. Mitchell et al (edited by John White), *Psychic Exploration* (New York: G. P. Putnam’s, Spring 1974).
9. ELIADE, MIRCEA, *Le Chamanisme et les techniques archaïques de l’extase* (Paris: Payot, 1951).
10. BOURGUIGNON, ERIKA (ed.), *Religion, Altered States of Consciousness and Social Change* (Columbus, Ohio: Ohio State University Press, 1973).
11. LEWIS, I., *Ecstatic Religion* (London: Penguin Books, 1971), pp. 66–99.

12. O'BRIEN, ELMER, *Varieties of Mystic Experience* (London: Mentor-Omega Paperbacks, 1965).
13. LEWIS, I., *Ecstatic Religion* (London: Penguin Books, 1971), pp. 127-177.
14. GREENBAUM, L., "Societal Correlates of Possession Trance in Sub-Saharan Africa." In Erika Bourguignon (Ed.), *Religion, Altered States of Consciousness and Social Change* (Columbus, Ohio: Ohio State University Press, 1973).
15. PRESSEL, ESTHER, "Umbanda in Sao Paulo: Religious Innovations in a Developing Society," In Erika Bourguignon (Ed.), *Religion, Altered States of Consciousness and Social Change* (Columbus, Ohio: Ohio State University Press 1973).
16. REICHEL-DOLMATOFF, G., in Peter T. Furst (Ed.), *Flesh of the Gods* (London: Allen & Unwin, 1972), pp. 84-113.
17. LA BARRE, WESTON, "Hallucinogens and the Shamanic Origins of Religion." In Peter T. Furst (Ed.), *Flesh of the Gods* (London: Allen & Unwin, 1972).

DISCUSSION

SERVADIO: Thank you very much, Professor Lewis, for a very interesting paper.

WEINER: A subject of this sort is so difficult because the terms used—like ecstasy and mysticism—have been so abused that they really have lost all communicable value. Personally, I have not been able to really get the definitions myself which could be communicated. When you come to women, then you become more concrete, and when you associate, as I think you did, women as having more potential for being "possessed," I question whether indeed women have been more active in either primitive or current cultures in terms of their ability to achieve a kind of leaving of the body—if you want to call it that—or being possessed. If one thinks of the more classical mystical ecstatic movements, whether it be the Dionysian cults or the Sufi or the prophetic ecstasies of the Hebrew tradition, one finds men very very prominent and women more passive. I've often thought that Kiekegaard, without putting him into any category, except as a good analyst of men and women, always felt that women had a better capacity than men for being tied to very earthly, practical things because of the very functions of their body which prevented them from taking off as men would. Namely, they had to bear the child; they had to be careful when they were pregnant. That is my question. And I have a slight suggestion. If indeed, there is something of a correspondence between femininity and possession, would it not be fruitful to assume that we all of us have our feminine and masculine parts, and that a culture—let us say even if it is male-dominant—may have achieved the wisdom to know that when it wants to achieve this kind of condition (and I agree with you that being

possessed involuntarily has sometimes a little voluntary movement behind it). Then that culture even teaches one to bring out one's feminine component, one's "Yin."

LEWIS: Yes, I agree with you entirely. Just on your first point about factual data, prominence or nonprominence of women in these cults—I did say that not only women but also men who are in positions of subordination are very prominent cachement for membership in such cults throughout history. Dionysus is a good example and there are many others. You mentioned the Sufi. Most of the most ecstatic Sufi orders in fact gain their strongest support among people of slave origin in North Africa, and they are regarded very askance by the more arrogant "aristocracy" of the desert as they see themselves, and this is something for women and people of slave West-African origin. The other point, of course, is, as you say, that there are the feminine characteristics and the male characteristics, although it's very difficult especially nowadays in the era of unisex to decide what these are any longer. But anyhow, if you live in a world in which there are fixed ideas of what is femininity and what is masculinity, then of course you can selectively draw upon these and blend them, etc. I must say though that very often the kind of men you find in a minority in what are essentially women's mystery cults, are homosexuals. I, for instance, have witnessed this in Khartoum, the capital of the Sudan Republic—I've been present at spirit possession seances where there were something like one hundred women dancing around in various states of ecstasy and, as they conceptualized it, possession—and I could speak a lot about the extent to which they were actually able to control themselves. It's very interesting. But there were also a few men present and they were very obviously "camp." I mean, they were got up as women, and they were quite clearly homosexual and deviants in their cultural niche. This applies to a lot of these cults but not exclusively, because there are certain circumstances in which men, who are not, I believe, homosexuals, play a prominent role in these ecstatic cults.

KREITLER: I have to go back to the first point mentioned here, namely, the readiness of men and women for an unusual experience. As I mentioned before, tolerance for conflicting information is an important precondition for this readiness. Now, worldwide research carried out by the supporters of the theory of cognitive dissonance showed that women are much more tolerant and able to such an extent to handle conflicting information that the theory of cognitive dissonance doesn't hold for female subjects. Therefore women are more inclined than men to go into a state which is unusual and conflicts with habitual patterns of behavior, for instance ecstasy. But now, and this is a suggestion or a question—is it reasonable to see ecstasy in

itself as a supernatural phenomenon, or isn't it more advisable to view it as one of the conditions in which perhaps supernatural experiences are more likely (if they are more likely)? This would imply that the anthropologists should not distinguish so strictly between this kind of ecstasy and that kind of ecstasy—this kind of not-ecstasy and that kind of a normal sober state—but rather should categorize experiences by virtue of their content. In ecstasy, if you have a sexual experience, I wouldn't call it something supernatural. However, if you feel unity with God, with another person or an object, this could under certain conditions figure or be evaluated as something supernatural. Wouldn't it be more reasonable to distinguish the different states by their content instead of just judging their external forms?

LEWIS: Well, I think it's very difficult to separate contents from external forms because the content is expressed by the subject in the language of external forms; and to take your last point first, if you read any of the writings of the great Catholic saints, mystical saints—for instance, St. Theresa, you will see immediately that there is a very frank usage of sexual terms in metaphor, and while you can say, all right, this is a sexual experience, but who are we to say that is a sexual experience? How do we know that they are not simply having an ecstatic experience which they only know how to describe in the language of love, which is the language after all, of mundane social intercourse—in all senses of the word—intercourse. Finally, if I may say so, you're being a little ethnocentric. I don't see how one can go beyond and get past the cultural perception of events. I don't see how one can distinguish. If somebody in a given cultural setting claims that they have sensations which they interpret as the hand of God or of the entrance of a spirit or God into their body, then how can you possibly say that it is or it isn't the case? For them it is an ecstatic experience and I don't think you can go beyond that. I would be very interested to know how you propose to go beyond it.

DINGWALL: I find Professor Lewis' paper absolutely fascinating. I agree with every word he has said and there are just two points I would like to take up. First of all, the difficulty that he emphasized at the beginning of his paper with regard to the position of the anthropologist when doing field work, when he finds himself confronted by what he thinks is the supernatural. Of course, the great difficulty is that the anthropologists really don't know anything about evaluation of what they see which they think is supernatural because they've had no training for that purpose. Curiously enough, thirty or forty years ago when I was working in the Anthropological Department at University College, I was the first person to propose that a branch be set up to train our field workers in that very discipline. We had

a great many colonial servants coming back who told me the most extraordinary things that they'd seen in field work, and I'd say, "Well, what you have to do is to get trained first. I will train you." I only managed to get two who were willing to go through the discipline of being trained. They've become very distinguished anthropologists and they're fully acquainted with all the facts, but until they know, in my opinion, they're quite helpless when they're in the field, faced with something which they don't understand. They know nothing about the Western side, and therefore don't know the facts or alleged facts. The second point is the mention of Castaneda. I suppose we shan't be able to discuss this gentleman. I will discuss this later. If any of you have not read his works, I implore you to do so. To me, he is a complete puzzle.

DEVEREUX: Many people feel the need to have somebody else religious *on their behalf*. I'm reading to you three lines from the *Introduction* of Professor Dodds' edition of Euripides' *Bacchae*, which deals with Dionysos, and has been considered by some to be a last minute retraction of a previously rationalist and atheist poet. "Christian editors seem to have been gratified by this notion of their poet's eleventh hour conversion to pagan orthodoxy." I think no further comment is needed on this point. Secondly, there is one point on which I would like to support something Dr. Lewis said. My Mohave shaman informant had a love affair with his niece, but the father of the girl interrupted it. Eventually the girl died. But my shaman friend said that he kept on having dream coitus with the girl's ghost and assured me that no coitus with a living woman was as delightful as this dream coitus. One last comment: Professor Lewis has been speaking somewhat strongly on the subject of normality and, I hope I'm not too indiscreet if I ask him what his *clinical* experience is which enables him to make diagnoses of normality and abnormality.

LEWIS: Thank you very much. First of all, to put it briefly, I don't know whether members of this conference are aware, but the National Theater is currently staging a production of *The Bacchae* which is very appropriate if people are able to go to it. I don't know if it's on this week, but if it is, it would be a good thing to go to. The particular adaptation expresses the whole ecstatic rebellious element which is clearly present in Euripides' play to which Dr. Devereux referred. About the business of normality, I'm afraid that I take the view, as he would well know, I think, and is implicit in what I was saying, that it is really impossible to define normality except within a given cultural context.

DEVEREUX: That's something that I deny and have denied for thirty years and if you'll forgive me, that's simply nonsense.

LEWIS: Well, I respect your disagreement.

DEVEREUX: But you had no *clinical* experience?

LEWIS: I would say that my clinical experience is with quite a lot of human beings and I've noticed the behavior patterns vary in different situations as do those in clinical psychiatrists.

SERVADIO: I'm afraid we have no time for further discussion.

KREITLER: We shouldn't leave this point without a remark: There is overwhelming confirmation that it is possible without knowing the culture, to diagnose psychosis by using the Rorschach test.

TRANCE AND ORGASM IN EURIPIDES: *BAKCHAI*

GEORGE DEVEREUX

THE PROBLEM

It is proposed to differentiate between complete and incomplete trance states in terms of a criterion which, to my knowledge, has not yet been used for this purpose. The criterion in question is that of complete or incomplete sexual gratification obtained *through and during* a trance experience.

As in the case of nearly all of my other theoretical papers, here too the immediate impetus was provided by a concrete and perplexing datum: by certain peculiarities of Euripides' *Bakchai*. That play, in which trance and ecstasy play a crucial role, remains to this day a major enigma—its basic scope and outlook continue to be debated. The disagreements are, at times, so radical that not a few overly cautious scholars have practically abandoned all hope of discovering the play's *general* significance, and have taken refuge in the assertion that it is an exclusively aesthetic product, only whose artistic qualities can and deserve to be studied. This view cannot, of course, be reconciled with that of psychoanalytical theory, which postulates that every human activity—be it the writing of a masterpiece or the screaming of a catatonic—is causally determined and pursues an, at times unconscious, objective.

The general sense of a great drama which deals with trance rituals and with the subjective experience of performing and of participating in such rituals is, of course, of special interest to the anthropologist. This implies that the understanding of the *general* scope of this text, which is, in part, a dramatized ritual, is impossible, unless one understands first the scope and meaning of all its *details*. Yet many students of this drama have been so preoccupied with its general meaning—or with Euripides' general intentions—that they have paid insufficient attention to some of the subsidiary puzzles it contains.

My purpose is to tackle one of these seemingly subsidiary, but actually crucial, problems, in the hope that its solution will bring one somewhat

closer to an understanding of this play's general sense. This problem is that of the chastity or unchastity of the Theban Bakchantes.

THE DRAMA

I begin by giving a résumé of the play which is deliberately partial, in that it highlights mainly details more or less related to the problem of sexual activity—or its lack—during the ecstatic mountain-roaming (*'ορει βακία*) of the Theban Bakchantes.

One of King Kadmos' daughters, Semele (Earth, in Thraco-Phrygian), became Zeus' secret mistress. The god visited her only in the dark, apparently cohabiting with her in a human form and manner (*infra*). But, tricked by the jealous Hera, Semele made Zeus swear that he would appear to her as he appears to Hera, and, as I will show, to cohabit with her as he cohabits with his divine wife. Oath-bound, Zeus struck her with his lightning—with his thunderbolt—causing the pregnant Semele's instant death.

My hypothesis that Zeus' cohabitation with Hera involved his striking Hera with lightning is strongly supported by Aischylos, *fragment 44 N*²: "Holy Heaven yearns to wound the Earth, and Earth longs to be united with Heaven in wedlock" (verses spoken by Aphrodite). Were it not for the "wounding," one might think first of Ouranos' mating with Gaia. But, since the next verses deal with fructifying rain, and since Demeter is mentioned in a different context, Heaven *here* can only be the rain-god¹ Zeus and Earth, Hera. The wounding must involve Zeus' thunderbolt.

Three comments are in order:

(1) The notion that the cohabitation of parental figures (deities) involves a wounding reflects the clinically commonplace infantile "somasochistic theory of coitus": "father does dreadful things to mother." Some parents are aware of this: "My children must think that I am being killed, when they hear me moan and scream while I cohabit with their father."²

(2) The motif that the *type* of intercourse Zeus practices with Hera can kill the *mortal* Semele, may be linked with the little girl's oedipal fantasy, loaded with erotized anxiety, that the penetration of her small vagina by her father's huge penis would kill her.

(3) The "invisible lover" theme is found (in a prettified form) also in the tale of "Amor and Psyche," which forms part of Appuleius' *Metamorphoses* (better known under the title *The Golden Ass*). Needless to say, the "invisible lover" is, psychologically, the tabooed (incestuous) lover.

Zeus saves, however, Semele's unborn child, the god Dionysos, by removing him from his dead mother's womb and sewing him into his own "thigh" ("thigh" is, I think, a euphemism), until he is sufficiently mature to be born. This, of course, is only one of Zeus' two (male) pregnancies, for he also gave

birth to Athene (from his "skull"). I note that belief in "male pregnancy," resulting from coitus inversus with a pregnant woman, exists also among the Navaho Indians.³ The notion that the foetus can *temporarily* pass into the abdomen of the father exists among certain tribes of the Ivory Coast.⁴

Now, the pregnant Semele's assertion that her lover was Zeus found no credence. Zeus' lightning was thought to have struck her because of her impious lie. The small building in which she was killed by lightning kept on smoking and became her (unhonored) tomb, which is visible throughout the play.

The adult Dionysos subsequently returned to Thebes, accompanied by his train of Asiatic Bakchantes, partly to vindicate his mother and partly to establish his own ecstatic cult also in Thebes. Since the Thebans resisted his cult and disbelieved his claims, he maddened their women, who began to roam the mountains, dancing in a trance state and creating much sociopolitical insecurity and chaos. It is of great interest to note that the Theban women's *involuntarily* entranced mountain-roaming group appears to have operated apart from Dionysos' train of Asiatic Bakchantes who periodically became *willingly* entranced.

King Kadmos had, somewhat earlier, abdicated in favor of his daughter Agaue's son, Pentheus (= Grief), as Laertes had done in favor of Odysseus, Peleus in favor of Achilleus, etc.

Pentheus, a strict "law and order" king, disbelieved Dionysos' godhead: he used force to arrest Dionysos and to curb both the Asiatic and the Theban Bakchantes. Above all, he felt convinced that the (Theban) Bakchantes, led by his own mother and maternal aunts, were, during their mountain-roaming, practicing the cult of Aphrodite (coitus) more than that of Dionysos (ecstasy) (v. 225). He is reproached for suspecting the sexual conduct of a group, which includes his mother and his aunts, both in the play (v. 916) and by at least one modern Hellenist.⁵

In the play the reproach can perhaps be justified by dramatic considerations: in a modern book on Euripidean drama, that reproach is psychologically insensitive. I now propose to appraise Pentheus' suspicions, first by the indirect approach.

(1) Both Herodes and King Arthur⁶ killed many infants, so as to make certain that the *one infant* (Jesus, Mordred) whom they wished to slay, but could not identify, would perish in the general massacre.

(2) The various versions of the Thamyris myth manage to obscure the fact that Thamyris desires to cohabit with *all* the Muses, because *one* of them is his own mother.⁷

In all these instances interest in the real object of the attack or of the sexual craving is disguised as a hostile or erotic interest in the *group* to which that person belongs. In this drama, the situation is not very different.

As a King, Pentheus is, I hold, legitimately concerned with the chaos that the mountain-roaming women and Dionysos, their messianic god and leader, create. For, though some Hellenists refuse to recognize the revolutionary character of this religion, modern leftists know better: revolutionary theater groups stage Euripides' drama, for they recognize their kinship with his Bakchantes.

THE MOUNTAIN-ROAMING

Myths concerning the ritual outbreaks of the Theban women—and of the equally frenzied mythical daughters of Minyas and of Proetos—may well be echoes of a very archaic Women's Liberation Movement (with religious overtones) that appears to have spread like wildfire through at least part of the early Greek world. This was suggested by Professor Walter Burkert (Zürich), in a lecture before my seminar, which, in 1969-70, was devoted to trance states.⁸ In my opinion, these outbreaks occurred during the last century preceding the Trojan War: that is, at a time when Mykenaian Greece was most prosperous and its women freer by far—as countless myths indicate—than ever before. This may explain why in Athens, which was *not* overrun by the Dorians, the women *became* less free than they were in the formerly Mykenaian City States which the Dorians had overrun. This hypothesis is strongly supported by cultural-historical considerations.

(1) The modern Women's Liberation Movement originated in America, which, for all practical purposes, is a matriarchy, rather than, for example in those Mohammedan states in which women are still chattels.

(2) It is during periods of peace and prosperity that certain types of revolutionary movements, often of a messianic ("cult of the personality"), ecstatic and religious character arise. One thinks here of the rise of cynic philosophy in fourth century B.C. Greece,⁹ of Isiac, Mithraic and Christian movements in the prosperous Rome of the so-called "good Emperors" (Traianus, Hadrianus, Antoninus Pius, Marcus Aurelius Antoninus).¹⁰ The same is true also today. Human masochism being boundless, men seem unable to stand prosperity: "es sticht sie der Hafer." Assured of both freedom and bread, their thinking automatically turns to a Utopia, to be achieved by means of fantasies of magical omnipotence (*Jesus Christ Superstar*). Yet, history shows that the pursuit of Utopia always ends with the loss of bread, of freedom and of a tolerable reality.

PENTHEUS: SON AND KING

Pentheus' concern, qua King, is, thus, justified. This finding enables me to turn now to the worries of Pentheus the man: the *neurotic* man.

As noted, both certain personages of the play and at least one modern

philologist blame Pentheus for suspecting the chastity of the Bakchantes led by his own mother and maternal aunts.

Now, the neurotic-infantile core of young Pentheus could not care less about the sexual misconduct of the majority of Theban Bakchantes. What obsesses and upsets him is the probability of his own mother's (and aunts') sexual dissipation. At one point he practically says as much: he wishes primarily to punish *his own* womenfolk, and the herdsmen who observe the Theban Bakchantes are quite aware of this (vv. 719 ff.).

Let it now be noted that whereas the charge of sexual misconduct rests only on suspicion and *appears* contradicted by the reports of the Messenger, who had actually seen the Bakchantes (vv. 677 ff.), some of their other misdeeds are well established. Their extreme violence, when provoked, is described in detail (vv. 731 ff.) and it is stated that they neglect their homes and children (vv. 702 f.). They may or may not be drunk on wine as well (vv. 221, 705 ff.), for only those who *wish* to do so drink milk (vv. 708 ff.). Above all, one must stress that the Messenger's account is based only on a fairly brief glimpse of their *post-trance* conduct.

Yet, though Pentheus could rightly accuse them of such demonstrable misconduct, all he obsessively holds against them is their simply suspected and inferred sexual behavior. Now, that is precisely the *kind* of misconduct that would *obsessively* preoccupy the still oedipally fixed son of what *appears* to be a widow or of a mother perhaps simply living apart from her husband, Echion.¹¹

The *man* Pentheus' rational ego and *King* Pentheus' legitimate concern for "law and order" manifest themselves only indirectly, in that he suspects not only his mother (and aunts), whose conduct really interests him personally, but *all* Bakchantes, whose conduct interests only the King. In the terminology I proposed elsewhere,¹² psychologically his royal concern over the real misconduct of *all* Bakchantes is simply an instrumental motive, permitting the ego-syntonic irruption into the sphere of consciousness of his personal concern over his womenfolks' suspected sexual looseness, and of his Orestes and Hamlet-like¹³ need to punish them. Psychologically, only the latter is an operant motive.

With this, one can turn to the key problem.

ALCOHOLIC EXCESSES

I began with a discussion of the Bakchantes' highly probable drunkenness chiefly because, even in societies which value and encourage visions (and trance states), some "unfortunates" are simply unable to have such experiences without the help of alcohol or drugs.¹⁴ A few—like myself—are unable to have such experiences even with the help of alcohol or medically

prescribed drugs. Also, if a good case can be made for the wine drinking of the Bakchantes, half the battle is won as regards the matter of proving their sexual misconduct.

I begin by noting that, though alcohol notoriously dissolves the Superego in both sexes, it is only the woman whose sexual *performance* alcohol fails to impair.

The first datum is that the Messenger denies that the Bakchantes he saw were drunk. Still, he reports (vv. 705 ff.) that, using both their natural strength and supernatural power, they obtained water and wine (or vine plant or perhaps grapes; v. 707 is, I think, a little ambiguous, cp. also Dodds, ad loc.). He also says that (only?) those who thirsted for it, drank milk (vv. 708 ff.). The cynic—or realist—may well ask whether they drank milk to quiet their stomachs after alcoholic excesses. As can be seen, the evidence is obviously two-edged, and not only in this respect.

It is noteworthy that some of the Bakchantes drink pure (unmixed) milk. This sounds innocent enough, until one recalls something no one seems to have recalled in this context: the Kyklops' drinking of pure (unmixed) milk is represented by Homeros (*Od.* 8.297) as intemperate and barbarous, and Euripides, in his *Kyklops*, also speaks repeatedly of that monster's disgusting habit of quaffing what is clearly undiluted milk. This may or may not be connected with the modern finding that the adults of some races do not secrete enough lactase to digest lactose well;¹⁵ to this day, the rural Greeks consider cow's milk harmful.¹⁶ This puts another complexion on this "innocent" drinking of milk, at least for Greek theatergoers. Nor is that all. If, as Homeros seems to imply, milk was usually diluted with water—as it still is among the Djelgôbe Peulh¹⁷—one thinks at once of the Greeks' custom of diluting wine and of their contempt for those drunkards who drank it undiluted. The mad Spartan King Kleomenes learned this dangerous and offensive habit from barbarous Skythian ambassadors (Herodotos, 6.84). In short, the early Greeks drank only two beverages diluted: wine and milk—and so, apparently, did the "good" Bakchantes. I know, of course, that Greek "pastoral romanticists" ascribed great qualities to half-fabulous and fairly distant pastoral tribes who lived on milk. But these people were not Greeks, and moreover, almost certainly drank milk only in the form of kymyss (fermented whey), which had a fair alcoholic content. And this brings me to an admittedly risky speculation, which I cannot quite force myself to suppress.

At least as far back as the seventh century B.C., the Spartan poet Alkman (*Partheneion*, v. 59) knew enough of the Skythians to mention their rare breed of Kolaxaian horses, whose skeletons are found only in princely tombs (*kourgans*).¹⁸ Herodotos (4.2), a contemporary of Euripides, speaks, in turn,

of the very peculiar sexual techniques the Skythians used in milking mares (whose milk was used by them to make kymyss). But I concede that he did not explicitly mention fermented mare's milk—unless the sentence preceding the last one of that paragraph had dropped from the text, or unless the actual penultimate sentence (briefly) refers to the preparation of kymyss—which is what How and Wells,¹⁹ think it does. Herodotos' contemporary, Hippokrates (*On Illnesses* 2.358), does mention Skythian kymyss, and modern authors, like T. Talbot Rice, take it for granted that the Skythians made kymyss.²⁰ What matters here is that (despite what Euripides' Dionysos himself says) his cult very probably entered Greece from the north, from an area which had common frontiers with Skythia. It is therefore—but only just barely—possible that the Bakchantes' "milk" drinking may be even less innocent than it already seemed a moment ago: it just *might* have been "the hair of the dog" drunks need when they wake up after a wild party. Let it not be forgotten that Euripides wrote *The Bakchai* in notoriously alcohol-prone Macedonia, next door to southwestern Skythia. But that is as it may be.

Far more pertinently, one is entitled to ask whether the cult of the vine-god could exclude the drinking of wine. Pentheus takes the wine-drinking of the Bakchantes for granted (vv. 221, 260 ff., 814, etc.), perhaps not without justification. He also feels that the drinking of wine by women, in the course of a ritual, is unhealthy (*ὀνχ ὑγιᾶς* v. 262)—chiefly, no doubt, in the moral sense. So apparently did Euripides' contemporary Aristophanes, in whose *Thesmophoriazousai* there is not only much talk of female alcoholism (vv. 347 f., 394, 420 ff., 557, 630 ff., etc.)—and promiscuousness—but in which one woman actually brings with her a wine-skin, whose contents she intends to drink during the celebration of the Thesmophoria (vv. 689 ff.).

Still, I concede that Pentheus may be wrong in regard to some Bakchantes. Those not inherently hysterical enough to go spontaneously into a trance, may well have had to get drunk to do so, or might have had to substitute drunkenness for a true trance. The use of various drugs in connection with trances is, as already noted, widespread.²¹ On another level, many men over fifty still recall that only after 1945 did the average unmarried American girl learn to make love without getting "decently" drunk first. A limerick discussed by La Barre attests this.²²

THE CHASTITY OF THE BAKCHANTES

At this stage of my discussion, I am able to tackle at least frontally the validity of Pentheus' chief suspicions.

For reasons which I fail to comprehend, certain Hellenists simply take the chastity of the Bakchantes for granted. Yet, the only evidence they can

muster in support of their convictions is the (not overly bright) Messenger's report that, while he watched them (which was not for long), their conduct was modest: all were sleeping very relaxed and in a decent posture (vv. 683 ff.). Grégoire, in his edition of this drama, notes (ad loc.) that even nude sleeping Bakchantes, shown on monuments, lie in a decent and graceful position and cites, in support of his views, Philippart's study of the relevant iconography.²³ Having seen some of these monuments and having examined photographs of several others, I find that the Bakchantes' sleep strongly resembles that of sexually recently satiated women, or of women who had just experienced a *grande hystérie* seizure, of a type shown in Dr. L. Chertok's film. Now *grande hystérie* is, of course, an orgasm equivalent—of which more anon. We are also told (v. 693) that they woke up in a wonderfully chaste manner. May I, perhaps cynically, remark that a sexually already satiated woman can well afford to act chaste on awakening from a post-orgastic sleep?

The already cited iconography, some of which can be referred to certain details of the Messenger's account, also contains items which, according both to Grégoire and to Philippart, depict chaste and tender reciprocal help, but which, in my opinion, could just as well hint at lesbian relations between the Bakchantes, relations similar to those obtaining between Artemis and her female hunting companions (Eratosthenes, *Katasterismoi*, I, p. 50, Robert's edition). This view does not exclude heterosexual coitus during the preceding night. Both semipopular accounts of wife swapping^{24, 25, 26} and clinically obtained data indicate that group coitus tends to end in lesbian contacts between the women present, or at least in their falling asleep in each other's arms, and not in those of one of their previous male partners. One such scene, in which two women fell asleep in each other's arms, was described by an eyewitness in quite lyrical terms, strongly reminiscent of the Messenger's account.

I begin with the Messenger's remark that the Bakchantes fled the city "as though stung by goads" (Grégoire) or "spear-swift" (Dodds). Both translations puzzle me: *olcrops* means primarily "gadfly"—metaphorically it can mean frenzy, including the sexual frenzy of a half-mad, lovesick woman like Euripides' Phaidra (*Hippolytos*, v. 1300), or even the spawning of fish (Herodotos, 2.93). Nothing compelled Euripides to use a word that means rutting to this day, if he had only a goad or spear in mind. The true precedent for *these* Bakchantes' flight from the city is the Aischylean Io's gadfly-driven (rutting) flight from her father's palace.²⁷

More important still, and also (pace Dodds) totally explicit²⁸ is that, at vv. 403 ff., the Asiatic Bakchantes' Choros longingly sings: "Ah, I would like to flee to Kypros, the isle of Aphrodite, where rule the Erotes (Loves),

enchanters of our souls." Only then do they mention also other places where they would like to flee. Given these remarks, one cannot very well blame Pentheus for suspecting that the Theban Bakchantes, too, are passionately interested in Aphrodite and her lovely works (vv. 225, 236). It is, moreover, evident that the Asiatic Bakchantes, quite as much as the Theban ones, are madly in love with Dionysos; their religious ecstasy is as blatantly sexual as that of St. Theresa of Avila, and of many other ecstatic saints. The fact that, as I have conclusively shown elsewhere,²⁹ the notoriously effeminate and cowardly Dionysos was imagined as a eunuch by no lesser a poet than Aischylos (*fragment 62*; from his lost Dionysiac play: *The Edonians*) strengthens, rather than weakens, my argument. Indeed, some neurotic women, ridden by their own castration complex, fall almost slavishly in love with men totally unable to satisfy them: impotent or homosexual men. Thus, a famous beauty once told me of her hopeless and lasting love for a homosexual and I have published a case of passionate and faithful love for an impotent husband, which lasted until his death, fifteen years later.³⁰

Dionysos' own ironical allusions (912 ff.) to the forbidden sights (and what sight could be more forbidden than that of the ritually secret coitus of one's own mother?) which Pentheus wishes to see and which Dionysos, seeking to entrap the King, offers to help him spy upon, are generally held to imply no admission on Dionysos' part that the Theban Bakchantes *do* misbehave sexually. But this view disregards that the vengeful Dionysos sent his holy madness to the (at first reluctant) Theban women not as a blessing, but as a punishment. He sent them his frenzy only the better to disown them. A god, who cold-bloodedly traps Agaue into killing—and, I believe, also into eating (cp. v. 1184) her own son,³¹ would hardly safeguard her chastity! He exalted Agaue so as the better to degrade ultimately her, her sisters and her companions. And there can be no question but that Dionysos so intended this.^{32,33}

What, then, about the contrast between the worst Pentheus fears and the best old Kadmos and especially Teiresias hope for, as regards the conduct of the Theban Bakchantes? What also of the Asiatic Bakchantes' glorious hymn (vv. 370 ff.) to peaceful serenity (*ἡσυχία*) and to reason (vv. 389 ff.) and their contrasting, icily cynical, cat-and-mouse game with Agaue (vv. 1168 ff.), which so closely matches the discrepancy between the peaceful sleep and the gory violence of the Theban Bakchantes, witnessed by the (biased) Messenger (vv. 660 ff.)?

The facts are simple: in this drama (and, doubtless, also in reality) the Bakchantes actually exhibited two polarly opposite extremes of conduct.

The manifesting of such logically incompatible sets of extreme behavior by the Bakchantes and by their modern equivalents is a basic characteristic

of orgiastic ritual trance behavior. For the ethnopsychanalyst the extreme and brutal violence of the Theban Bakchantes presupposes their ode to serenity and reason and vice versa. It suffices to think here of a jingle, attributed in 1928 to German communists: "Und willst Du nicht mein Bruder sein/ So hau' ich Dir den Schädel ein" or, better still, of the ghastly violence of some of our contemporary pacifists. Similarly, their "chaste" sleeping posture and (allegedly) bucolic milk drinking presuppose, to my mind, antecedent sexual (and probably also alcoholic) excesses. Hasn't *any* Greek scholar seen drugged hippies sleep "lyrically" in the streets of modern Athens?

Psychologically, these conclusions are self-evident, for mankind ever strives to escape from the vise of its ambivalence by seemingly ambivalence-negating excesses, which only confirm its ambivalence by moving—in a form reminiscent of "quantic jumps"—from one extreme to the other, never once stopping on the middle ground of nonambivalent, rational moderation.

I am convinced, in short, that the evidence for the sexual (and probably also alcoholic) misconduct of the Bakchantes is overwhelming, both in this play and out of it. For reasons of explanatory convenience I begin with the latter:

Euripidean evidence: In Euripides' fairly late play (418 B.C.?) *Ion*, the sexual activities of Bakchantes are taken for granted (vv. 548 ff.). Even the naive, temple-raised boy Ion at once believes that he was conceived during the casual and drunken Dionysiac mating of Xouthos with an unidentified Delphic Bakchante (vv. 540 ff., 573 ff.). This proves that both the author of *The Bakchai* and his public *knew* that Bakchantes engaged in casual (and probably drunken) amours during Dionysiac ritual orgies, and readily exposed the children they conceived on such occasions (v. 555). In fact, the conceiving of illegitimate children in the course of casual encounters during Dionysiac festivals (and even during modern Rhenish and Bavarian carnivals) and their subsequent exposure (in Greece) was a recurrent theme in the comedies of Menandros and perhaps in (post-Aristophanic) "New Comedy" in general. Also, many vase paintings (pp. 38, 39, 41, 68, 86–99, 133–136, 150, 151, 155)³⁴ show Bakchantes sensually approached by sub-human satyrs. (Note, in this play, the reference to Pan's chapel, v. 952.) It is psychologically absurd to hold that Euripides had simply repressed or "forgotten" what he knew and stated to be a fact, when, not over fifteen years earlier, he wrote his *Ion*. As to the possible claim that he intentionally suppressed what he knew—that he "lied" for "esthetic" reasons—that claim will simply not stand up under psychological scrutiny, for "truth will out," no matter how much one tries to negate it. This is demonstrable in the case of

Sophokles' *The Trachiniai*. In myth, Deianeira was a boyish, warlike girl, who, on killing her husband Herakles ("accidentally on purpose"), hanged herself, that being the standard way in which Greek women killed themselves. But, despite tradition, Sophokles chose to make *his* Deianeira excessively feminine and submissive, right up to the moment preceding her suicide. At that juncture the suppressed tradition of Deianeira's warlike, masculine character irrupted into the play. *Contrary* to tradition, Sophokles caused his (feminine) Deianeira to stab herself to death, in a highly masculine manner. That this innovation was system-alien is easy to show: only one (quite minor) later Greek author, Diodoros the Sicilian, accepted and imitated the Sophoklean tale of Deianeira's masculine suicide. That this new version represented an involuntary breakthrough of the "repressed truth" (discarded tradition) is proven by the strangely confused way in which Sophokles told (and perhaps imagined) Deianeira's suicide with the sword.³⁵

One must therefore expect to find also in *The Bakchai* at least one indication of Euripides' knowledge—revealed in his *Ion*—that the Bakchantes (or most of them) were unchaste during the Dionysiac orgies.

DIONYSOS AS A HOSTILE WITNESS

At one point, the captured Dionysos is brought before Pentheus, is reviled and is interrogated about the sexual behavior of the Bakchantes. In reply to a direct question, Dionysos answers only that the ritual is a nocturnal one (v. 485) (in Aischylos' *Seven Against Thebes* (v. 367), coitus is called a nocturnal rite). Besides, Pentheus himself (v. 487) so interprets the reply. Dionysos then retorts that nasty deeds can occur also during the day (v. 488). Yet, in Euripides' *Hippolytos* (v. 106) sexuality is linked with darkness; in Euripides' *fragment 524 N²* it is stated that Kypris loves darkness, while light encourages chastity.

After Dionysos miraculously frees himself, he once more converses with Pentheus, with whom he begins to play a cat-and-mouse game. At v. 807, Pentheus reaffirms the dissipation of the Bakchantes; all Dionysos answers is that he agrees with "the god" (whose prophet he claims to be). Simply stated, he professes to agree with (or approve of) whatever the women do. At vv. 958 f., Pentheus again says that he expects to catch the women *in flagrante*. Dionysos replies ironically that, after all, that is what Pentheus seeks to do. Here one cannot but recall what Teiresias, the old time-server, told Pentheus (vv. 314 ff.): "It is not Dionysos' part to force chastity on women: you must look for that (the moral factor) in human character; for even in the ecstatic rite the pure will not lose her purity." (Dodds' translation). Verdenius,³⁶ partly concurring with Dodds, interprets this passage as follows: "In each

case where self-restraint is found, it has its root in the nature of the person in question" (Grégoire's "incitera *chacune*" is both illogical and dead wrong). In short: "Some Bakchantes are, while others are not, chaste." I will return to this crucial remark soon.

But there is something odd about this passage. I am not sure that *φύσις* denotes here a particular woman's basic "nature" or "character," nor even, as it does at times in Sophokles (*Tr.* 1062, *O.C.* 455) and in Thukydidēs (2.45), "feminine nature," as such. I think it could denote here a woman's temporary psychological state, and especially her state and degree of sexual arousal during the rites, though I cannot find a fully satisfactory (temporary state denoting) parallel usage of that word. Perhaps it is precisely Euripides' (hypothetical) denoting, by this word, of a temporary state, which explains why there is so much disagreement both about the Greek text and about the translation of these verses.

My tentative view, that a temporary "sexual" arousal might be meant, is slightly reinforced by the fact that, even in Euripides' lifetime, "a woman's nature" could, in a medical text, denote her vulva (Hippokrates: *On Women*, 2.143) and that, beginning with the fourth century B.C., *φύσις* could denote the sex organ of either sex: in magical texts, in didactic poems, etc. But neither this nor the preceding paragraph are indispensable for my main argument. All that matters is that an expert, if opportunistic, prophet says that a woman practicing the Bakchic rites can (for whatever reason) be either A or non-A: either chaste or unchaste.

BAKCHANTES, "TRUE" AND "FALSE"

Now, there exists another, and quite famous, text, imitated even by the Apostle Paul: "Many are called, but few are chosen." In connection with Bakchic ritual, a difference is made between two types of Bakchantes: "Many carry the (ritual) thyrsos, but few are the true Bakchantes." This adage, cited by Platon (*Phaidon*, 69c), is directly applicable to some of Euripides' personages. (According to Olympiodoros, *On The Phaidon*, p. 48 Norvin = *Orphicorum Fragmenta* 235, this verse is an Orphic one, which Platon adapted to fit the *Dionysiac* religion.) Old Kadmos and old Teiresias opportunistically dress up as Bakchantes, and so, in the end, does the deceived, Dionysos-maddened spy, Pentheus. All three carry the Bakchantes' wand (*φύρσο*), but none of the three is a true Bakchant.

Now, here too, as in vv. 315 ff. of *The Bakchai*, "some are and some are not," and I hardly have to stress that, for Platon, sexuality, and probably heterosexuality in particular, was animalistic ("fourfooted," Pl. *Phdr.* 250e) and despicable. Had he written *The Bakchai*, he would (at vv. 315 ff.) assuredly have told us that the only real Bakchants and Bakchantes were the chaste

ones—and would, according to his “elitist” wont, have said this knowing full well that most persons celebrating the orgies of Dionysos were unchaste. In fact, given Platon’s hatred of dramatic poetry—a hatred evident to anyone not determined, in the teeth of evidence, to whitewash Platon—I suspect that he made a borrowed Orphic verse fit Dionysiac rites, because he had in mind precisely vv. 315 ff. of *The Bakchai*. For, despite his hatred of drama, Platon knew the objects of his loathing exceedingly well. (Euripides would have understood Platon’s fascination with what he hated. See v. 815 of *The Bakchai*: “You would gladly see what is bitter for you.” Did not Platon hope at first to become a dramatic poet? (Pl. *Epist.* 6; D.L. 3.4-5; Ael. *VH* 2.30)

I now put side by side the Euripidean statement and Platon’s (adapted) quotation:

(1) “Some Bakchants are chaste, others are not.”

(2) “Many carry the thyrsos, but few are true Bakchants.”

Adopting Platon’s viewpoint for the moment, I conclude that the “true” (platonian) Bakchantes are chaste, and the mere thyrsos-carrying, would-be Bakchantes, unchaste.

From here onward I can afford to disregard nearly all philological matters and to consider only psychological and anthropological facts. The one philological datum I can never disregard is that Dionysos himself never once denies the validity of Pentheus’ suspicions. He only accuses Pentheus of impiety and voices his approval of whatever the Bakchantes do. This is “*credo et probo quia absurdum est*,” with a vengeance.

SEXUALITY AND ECSTASY

Dodds³⁷ has shown beyond doubt that Dionysiac trance states rigorously correspond to trance states observed by modern anthropologists in many areas, trance states such as I myself observed in Haiti. The sexual element in such trance-state dances is obvious to any impartial scholar. It is common knowledge that during and after such rites, manifest sexual behavior—both heterosexual and homosexual—does occur, though some informants—nay, even some anthropologists—either do not mention it or else flagrantly deny it. I must insist on this point. During an international colloquium on trance states, in Paris (1968), some Haitian students heatedly asserted that a film, showing Haitian possession behavior of a flagrantly sexual kind, was “faked” at a sensation-mongering producer’s request. When I quietly took some of them aside and told them that I, myself, had seen comparable, though slightly less flagrant sexual activities in Haiti (during a Petro rite, to which a noted Haitian expert had taken me), they suddenly caved in and admitted having themselves seen such behavior.

Moreover, a highly reliable field worker, Professor Vincent Crapanzano, of Princeton University, had personally observed cases of actual orgasm (accompanied, in men, by a spontaneous ejaculation) in Moroccan Aisha-Quandisha trance-dances.³⁸

Finally, as regards Greek Dionysiac trance states, especially as described in *The Bakchai*, Bezdechi could list countless detailed parallels between Euripides' account of bakchic behavior³⁹ and Binswanger's descriptions of the symptoms of *grande hystérie*,⁴⁰ whose blatantly sexual character was obvious to, and scientifically stated by, Charcot and by other members of the French psychiatric school of that period. That the *grande hystérie* seizure continues to exist, even in modern Paris, was irrefutably proven by Dr. Chertok's already mentioned film, which came as a surprise to many psychiatrists and psychoanalysts, myself included. All the signs of coitus and orgasm are there, including the flushing, the trembling, the withheld breath, the *arc de cercle* and the final Bakchante-like deep and "chaste" sleep—the latter straight out of the Euripidean Messenger's report. I need only add that most women who have such attacks are at least vaginally and/or orgastically frigid: the seizure replaces orgasm.

CONCLUSION

With this, I have come to the end of my argument: a Bakchante capable of a true (*grande hystérie* equivalent) trance is chaste, because she is an inhibited virgin (v. 655), who needs a man (Chrobak, cited by Freud)⁴¹ or else a young lactating mother temporarily deprived of her husband's love (vv. 700 f.)⁴² who dares not be unfaithful to him. For these, the trance is a coitus and orgasm equivalent. Still, Menandros tells us that many virgins were deflowered during the Dionysia, probably because they were normal enough not to settle for the unreal thrill of the trance ecstasy. But the true blue Platonic Bakchante, the one whose "chaste" nature Teiresias seems to praise, the darling of some "pure-minded" Victorians, is the one whose only sexual outlet, like that of Christian ecstasies, is the *grande hystérie* seizure of the trance. These women need no lover—they need a psychoanalyst.⁴³

But the orgiastic roaming over the mountains only arouses the dutiful but non-frigid Bakchante; it does not provide for her the substitute gratification of the hysterical seizure. As a result, she must find the orgasm, which her state of arousal imperatively requires, in the arms of a man. These are the "unchaste," un-Platonic, "false" Bakchantes, who bear the thyrsos only until they can find a phallos.

These are the *normal* women the neurotic Pentheus suspects, and rightly suspects, of making love; they are the ones the "true" Bakchantes (Ael. *V. H.*

3.42) and of course also Teiresias, the hypocrite, and Plato, the apostle of the pious lie, condemn. These are the women whose sexuality the Victorians denied in the teeth of evidence.

EPILOGUE

After completing this study, I briefly outlined its main argument in a letter addressed to Professor E. R. Dodds of Oxford, who is both the greatest expert of all times on Euripides' *Bakchai* and a past president of the Society for Psychical Research (S.P.R.). I summarize his reply.

In the 1930s, the late Dr. V. J. Woolley, then Research Officer of the S.P.R., always stripped the well-known "physical" medium Rudi Schneider, both before and after each sitting, to avoid trickery. "During every successful sitting Rudi was found to have had an emission of semen." (*Italics mine.*) Most of the sittings Professor Dodds attended "were unsuccessful—which Rudi explained by confessing that he was having an affair with a girl at that time. This fits your maenads very neatly."

Professor Dodds also indicated that this information is probably not reported in the literature about Rudi. If so, the concealing of such data is scientifically irresponsible. Their suppression will not strengthen the case of parapsychology but will assuredly bring disrepute to parapsychologists.

REFERENCES

1. COOK, A. B., *Zeus*, 3 vols. (Cambridge: Cambridge University Press, 1914-1940).
2. DEVEREUX, G., "Mumbling," *Journal of the American Psychoanalytic Association*, 14 (1966): 478-484.
3. BAILEY, F. L., "Some Sex Beliefs and Practices in a Navaho Community." *Papers of the Peabody Museum of American Archaeology and Ethnology*, 40, No. 2 (1950).
4. AUGÉ, MARC, *Théorie des Pouvoirs et Idéologie du Pouvoir en Basse Côte d'Ivoire*. Doctor's Thesis, Université René Descartes, Paris, 1973.
5. GRUBE, G. M. A., *The Drama of Euripides* (London: Methuen, 1961), p. 403.
6. MALORY, SIR THOMAS, *La Morte d'Arthur*.
7. DEVEREUX, G., "Thamyris et les Muses" (to be published).
8. BURKERT, WALTER, *Homo Necans* (Berlin: De Gruyter, 1972).
9. DUDLEY, D. R., *History of Cynicism*, 1937.
10. DODDS, E. R., *Pagan and Christian in an Age of Anxiety* (Cambridge: Cambridge University Press, 1965).
11. DEVEREUX, G., *Reality and Dream*, 2nd ed. (New York: Anchor Books, 1969), pp. 290 ff. and *passim*.
12. ———, *Ethnopsychanalyse Complémentariste*, Chapter 5 (Paris: Flammarion, 1972).
13. MURRAY, GILBERT, *The Classical Tradition in Poetry*, Chapter 8 (New York: Vintage Books, Random House, 1927).

14. LA BARRE, WESTON, *The Ghost Dance: The Origins of Religion* (New York: Doubleday, 1970).
15. MACCRACKEN, R. D., "Lactose Deficiency," *Current Anthropology*, 12, Nos. 4-5 (1971): 479-517.
16. WHIBLEY, J. W., *A Companion to Greek Studies* (Cambridge: Cambridge University Press, 1905).
17. REISMAN, PAUL, *Société et Liberté chez les Peuls Djelgôbé*. Doctor's Thesis, University of Paris, 1970.
18. DEVEREUX, GEORGE, "The Kolaxaian Horse of Alkman's Partheneion," *Classical Quarterly*, 15 (1965): 176-184.
19. HOW, W. W. AND WELLS, J., *A Commentary on Herodotus*, Vol. 1 (Oxford: Clarendon Press, 1961), p. 305.
20. TALBOT RICE, TAMARA, *The Scythians* (New York: Praeger, 1963), p. 63.
21. LA BARRE, W., *op. cit.*
22. ———, "The Psychopathology of Drinking Songs," *Psychiatry*, 2 (1939): 203-212.
23. PHILIPPART, H., *Iconographie des Bacchantes d'Euripide* (Paris: Les Belles Lettres, 1930), p. 37.
24. HORTON, WILLIAM, *Wife Swapping Promiscuity*, 1972.
25. WELLS, J. W., *The Wife-Swap Report* (New York, 1970).
26. BARTELL, G. D., *Group Sex* (New York, 1971).
27. DEVEREUX, G., *Dreams in Greek Tragedy*, Chapter 2, 1974.
28. NORWOOD, GILBERT, *The Riddle of the Bacchae* (London: Methuen, 1908), pp. 32 ff.
29. ———, "Le Fragment 62 Nauck² d'Eschyle. Ce qu'y signifie ΧΛΟΤΝΗΣ." *Revue des Etudes Grecques* (in press).
30. ———, *Essais d'Ethnopsychiatrie Générale*, 1970, p. 201.
31. ———, "The Psychotherapy Scene in Euripides' *Bacchae*," *Journal of Hellenic Studies*, 90 (1970): 35-48.
32. BURKERT, W., *op. cit.*, p. 195.
33. DODDS, E. R., *The Greeks and the Irrational* (Berkeley, Calif.: University of California Press, 1951), p. 279., n. 18.
34. MARCADÉ, JEAN, *Eros Kalos* (Geneva: Nagel, 1965).
35. DEVEREUX, G., AND DEVEREUX, J. W., "Manifestations de l'Inconscient dans Sophokles: *Trachiniai* 923 sqq," (in) *Psychanalyse et Sociologie* (Brussels: Université Libre, 1973), pp. 121-152.
36. VERDENIUS, W. J., "Notes on Euripides' *Bacchae*," *Mnemosyne*, 15 (1962): 337-363.
37. DODDS, E. R., *The Greeks and the Irrational*.
38. CRAPANZANO, VINCENT, *The Hamadsha* (Berkeley, Calif.: University of California Press, 1973).
39. BEZDECHI, S., "Das psychopathische Substrat des 'Bacchantinnen' Euripides," *Archiv für die Geschichte der Medizin*, 25 (1932): 279-306.
40. BINSWANGER, *Die Hysterie* (cited by Bezdechi).
41. FREUD, SIGMUND, *On the History of the Psycho-Analytical Movement* (Standard Edition 14, 1957), p. 15.
42. RAUM, O. F., *Chaga Childhood* (London: Oxford University Press, 1940), p. 87 f.
43. FREUD, S., *Studies on Hysteria* (Standard Edition 2, 1955).

DISCUSSION

DINGWALL: I suppose I ought to say something on this last point considering I was closely associated with the Schneider brothers in the early days. There is a certain amount of truth I think, in what Dr. Woolley stated, though I should have thought that the statement that "it always happened," might perhaps stand some modification. But the fact that these sexual manifestations occur is fairly well known, though at the moment we have no works which deal with this. I think that the question arose quite clearly in the case of Eusapia Palladino, and I think that may have been one of the reasons why she found the experiments in Cambridge with Mr. Myers very unsatisfactory because obviously in a milieu of that sort, sexual manifestations were not considered at all proper and she was considered a nasty old thing, but if you'll go back in the past, I think you'll find the same thing hinted at in the Victorian records. But how far it is an essential part of physical mediumship, I couldn't discuss now. It would be a very long discussion to undertake with all the evidence, but that there is something in it, is undoubted.

LEWIS: I wonder if Professor Devereux would care to enlarge on the distinction he was making between chaste and unchaste.

DEVEREUX: Well, I should perhaps mention that Platon uses the word "four-footed" in discussing sexual behavior, and, in Greek, "four-footedness" is reminiscent of the word like andrapodon-the man-footed which was used only in connection with slaves: "tetrapous" clearly means only beasts. In other words, for Platon, sexuality was beastly, not befitting a conservative, pro-Spartan, homosexual Athenian "gentleman" like Platon. He was just that. Much information can be garnered on Greek customs from Platonic texts which deny the validity of certain beliefs. These beliefs may not fit Platon's truth, but they happen to be real Greek traditions. As to chastity, I simply ask: Did or did not the Bakchantes, the female participants of the orgies of Dionysos, engage in sexual intercourse? In Euripides' play *Ion*, not only Xouthos, a grown man, but even the temple-bred young boy, Ion, accept without question that the latter was conceived during a Dionysiac orgy, from Xouthos' casual relationship with a Delphic Bakchante. A little later, the idea of girls getting deflowered and pregnant during the Dionysia appears repeatedly in the comedies of Menander (Menandros). Everybody in Greece knew this and Euripides said so plainly. Why then should there suddenly be all this argument about the chastity of the Bakchantes in this last play of his, the *Bakchai*? I think the answer simply requires one to distinguish between two kinds of Bakchantes. Incidentally, I might say that Professor Walter Burkert, a very distinguished and psychologically extremely sensitive hellenist, pointed out that, at

times, the "good" Bakchantes expelled the "bad" Bakchantes, i.e., those who cannibalized their own children. I think the whole point is that the "real" Bakchantes obtained sexual gratification in the trance state: Therefore they did not need a man afterwards. The "bad" ones only got excited during the trance, they therefore needed a man after the trance. I am very glad that Professor Lewis brought up the Women's Lib Movement. This group advocates that there is *no* vaginal orgasm; that there is only clitoral orgasm. That seems to be the standard credo of the Women's Lib, and it is not at all surprising, because if its members had vaginal orgasms, they would be at home and in bed with their husbands and not at the meetings of Women's Lib. The fact is that nowadays the amount of frigidity has increased to almost frightening proportions. Here I am speaking as a clinician. There was nothing like this twenty or thirty years ago. This increase in frigidity may also be one reason why we are exporting occidental Marxist mysticism, if I may say so, and are importing alien mysticisms.

SERVADIO: I myself wish to make a few remarks not of the Chair, but personally. I think really that the refusal to acknowledge some of the phenomena of the connections which were described by Professor Devereux, are simply due to a repression or denial, a phenomenal refusal. Because after all, if we look at the many esoteric schools and traditions and circles, we actually see teachings of this kind—how to use sexual power in order to obtain something that from a certain viewpoint could be called paranormal. And I would like to refer to my good friend Ryzl: There is an entire system of Yoga taught nowadays in circles in India about this procedure—I mean, how to awaken sexual power. I suppose all of you have read something about it. So really, I think that Professor Devereux has made a very good point.

DEVEREUX: I'd like to add something to a very interesting remark made by Professor Lewis, which I entirely accept. I'm very glad that he brought me this very powerful additional confirmation; he mentioned that women are held to be more often and perhaps more powerfully shamans than men. The Mohave recognize an order of increasing shamanistic powers. The male shaman, heterosexual; the female shaman, heterosexual—the male shaman, homosexual; and the female shaman, homosexual. The latter is the most powerful shaman of them all.

KREITLER: I would like to ask a question which, of course, raises a problem. Why this endeavor to draw a strict line between sexual experiences in bed and sexual experiences in ecstasy or fantasy? From a psychological point of view, what we know about sexual experiences in bed

indicates that fantasy components and psychological experiences appear together with bodily experiences. Now, you can produce an orgasm in fantasy and, of course, also in ecstasy. So I would support the statement of Professor Servadio that sexuality is used to produce strong experience and it could in this case be a supernatural experience, but it is not the sex which is supernatural even if it is only imagined sex. I can't see the strict line drawn between having intercourse or imagining intercourse. Freud would say that libido is used where it is needed. Sometimes it is needed to make work more comfortable. And in our case it is used to have an experience and it could be a supernatural one.

DEVEREUX: Should you use sex for any other purpose than making Love (and let the capital "L" be clearly understood)? It seems to me that calling that sublimation is like taking a Stradivarius, chopping it up, and boiling a cup of coffee with its wood. As Karl Menninger remarks in *Love Against Hate*: how can genital sexuality be sublimated when it is already the most sublime of all things? It is *making* love. Or, as the Mohave Indians say, "when people make love, body makes love with body and soul with soul." As to the experience Dr. Kreitler brings up, I would like to bring up a very fundamental point, which is directly related to the Heisenberg principle of complementarity or mutual exclusion. My point is this: in order to observe, you have to be lucid. But, if you have a complete orgasm, there is an automatic clouding of consciousness; therefore either you observe and have no orgasm of the psychoanalytic Love-making (capital "L") type, or, if you're *not* fully conscious, if you have a clouding of consciousness—then you have real orgasms—but no objective data. There's no way out of this. And let it be clearly understood that, contrary to what many people think, psychoanalysis is not (I repeat *not*) in favor of mere fornication, which it considers it to be a very infantile mode of sexual behavior. In making Love there must be a complete *psychological* involvement. I'm very much concerned about the facts Professor Kreitler is talking about: about the fantasies. When you have in your arms a woman you truly love, you don't need to fantasize anything; you have the supreme "fantasy" right in your arms, physically. I'm appalled by the notion that Love (again, with a capital "L"—for me Love is always written with a capital "L") should ever be thought to be replaceable by a fantasy. A woman you love is real reality.

HALIFAX-GROF: I would like a clarification. I'm not quite sure what you mean when you say that orgasm produces a clouding of consciousness. In fact, I think it would reduce the clouding and would clarify consciousness. That is to say, the focus changes very dramatically in orgasm or in ecstatic

states in the transcendental phase at which time the ego boundaries are greatly reduced.

DEVEREUX: One: I do not believe in ego boundaries and I have discussed at length why this notion is mathematically and logically untenable in one of the last chapters of my book *From Anxiety to Method*. Two: I don't know what the word "transcendental" means. I have tried to understand it ever since I was thirteen and still don't understand it and I rather hope I will continue *not* to understand it. So, the consciousness you are talking about is the kind of consciousness which I call "clouding of consciousness": a diminished awareness of anything extraneous to the couple during the moment of *loving* embrace, and I repeat—Loving embrace.

HALIFAX-GROF: I consider it another kind of consciousness. A consciousness of greatly heightened awareness, of that state of beingness and not of peripheral stimuli, which, to me, is a clarification of consciousness, not a clouding.

DEVEREUX: It's a total absorption in its narrowness, it is also the whole world. But, for example, you can't do mathematics at the same time. One of my patients, who had a tendency to premature ejaculation, learned to prolong his act by doing arithmetic mentally—until his partner had her pleasure. But the moment *he* had his pleasure, he couldn't do any more arithmetic.

KREITLER: Yes. I think that there is a basic misunderstanding, especially by those who see psychology from the viewpoint of psychoanalysis only. Since Hebb's work with phantom-limbs, and the new work in perception, there is no reason to draw a sharp line of distinction between perception and fantasy and no leading psychologist in our day would dare to do it. Because what we perceived is not given internally as something physical, but as an image in the mind. Now, whether the impulse for this image starts a little bit more outside, namely, in the sense organ, or at the second synapse, or even closer to the cortex, makes a great deal of difference in everyday experience, but it does not justify drawing this sharp line of distinction. If you hold a woman in your hands, you build in your brain her image which sometimes differs from what a camera would register.

DEVEREUX: I know this work and it's very remarkable. But the fact still remains that the phantom limb phenomenon occurs only if you happen to be an amputee. Also, no amount of fantasizing will give you back your right arm if it had been cut off. And I think it really strange that, eighty years after the birth of psychoanalysis, one should still feel obliged to *play* at being

a scientist by attacking psychoanalysis. The basic fact is that other types of psychology are unable to include that which psychoanalysis deals with, while psychoanalysis is perfectly capable of accepting anything real—including work about neurology, synapses, physiological psychology, etc. It all fits into the same conceptual (psychoanalytic) scheme very elegantly.

KREITLER: Of course.

DEVEREUX: So I think that the broad psychology—the most comprehensive psychology—happens to be precisely psychoanalysis, because it *can* take in the other psychologies, which synapse, etc., psychology cannot do.

SMITH: I would like to go back to the phrase “clouding of consciousness.” I wonder if your example doesn’t reveal what you had in mind. If clarity of consciousness is doing arithmetic or doing analytic thinking, well and good! But can’t there be a clarity of consciousness that is not analytic?

DEVEREUX: I’m very sorry, but here we’re back to the point of transcendental consciousness and I must confess I’m about in the position of a blind man to whom you try to explain the color “white.”

SMITH: I think that’s perhaps it.

DEVEREUX: But the point is, that perhaps there is no color “white.”

SMITH: Maybe not, but I think this is.

DEVEREUX: Perhaps I might turn around and think that people who are talking about transcendental consciousness are like a blind man imagining that the color “white” is soft like the feathers of the goose—or cold and wet like a snowflake.

SMITH: I think our division is quite clear.

ROBERT SUSSMAN: I’d just like to ask a very simple question. How would you define “unclear consciousness”?

DEVEREUX: Professor Smith just said it’s a capacity for analytic thinking and reality perception outside your field of immediate preoccupation.

ROBERT SUSSMAN: You might be talking about your logical clarity, but that’s not talking about consciousness.

DEVEREUX: You’re raising the same problem Professor Smith had raised. I’m sorry, there’s just no way out. For me, “transcendental consciousness” is just words—words which have nothing to refer to.

LEWIS: I would like to turn for a moment, if I might, to the question of

orgasm and ecstasy. I would like to raise the question if it isn't the case or the fact that the definition of what constitutes orgasm (certainly in the case of women) is, shall we say, a little subject to controversy, and that I would have thought that there might have been the same difficulties in identifying or interpreting feelings which some people interpret as orgasm as there is in interpreting ecstatic states or states of altered consciousness. In other words, are they not all equally subjective, and therefore equally difficult to pin down? There's a vast literature on orgasm which, of course, is full of conflict and confusion and disagreement, and I would think that in fact it mirrors the same kind of confusion and disagreement that exist in the literature of ecstasy.

DEVEREUX: In psychoanalytic parlance, what Dr. Masters and Mrs. Johnson produced is a mere physiological spasm, followed in the case of men by an ejaculation. That is not a real orgasm! An orgasm automatically involves a solid, major investment of libido in the partner, and not a Masters and Johnson performance before a movie camera and with electrodes all over both "subjects." One can make love only with a girl that one loves.

LEWIS: I'm sorry, but I don't really find that answers my question.

DEVEREUX: The point is this: in the psychoanalytic sense, orgasm, first of all, presupposes a great deal of emotional maturity which, unfortunately, about ninety percent of humanity lacks conspicuously. Were it otherwise, there would be more love and less hate in the world. Second, it clearly has as its basic characteristic precisely this clouding, if you wish, of analytic reasoning consciousness; an inability to define the experience subjectively. You always have to resort to metaphor, or what have you, and even then you cannot convey it. That's about all there is.

KREITLER: Since you are unable to describe the taste of milk or the taste of goulash—does this justify to say that you very seldom experience it? What does it mean to say, "Most women are unable to report what an orgasm is like?" The question is whether they experience orgasm at all. I dare say a lot of women do and still are able to go on hating both vaginal and clitoral orgasm. Anyhow we couldn't distinguish these sensations because when performing intercourse you stimulate automatically.

DEVEREUX: No, you don't. Under certain specifiable conditions you do *not*.

KREITLER: In certain conditions she remains without orgasm, but I again must object and the objection was already raised: (a) If you can't describe a

state or experience because our language doesn't have the right words for it, the experience is unclear to the person who experiences it and, (b) however, if you concentrated on a certain experience, for instance, auditorially remembering a Mozart symphony, your consciousness remains clear, though you do not use words but merely concentrate on this musical vision. A woman or a man having a sexual experience, of course, would concomitantly think about mathematics, but this doesn't mean her or his consciousness is reduced.

DEVEREUX: The focus is at once very sharp and very blurred. As far as the nonperception of external things is concerned, I can tell you of a very personal experience, which may seem to add grist to your mill. In 1939 I was sitting at my typewriter and writing a paper which, essentially, is the key to all my subsequent work. Suddenly there was a violent knocking on my door: the janitor came in and said, "Don't you realize your apartment is on fire?" The air was black with smoke, tears were rolling down my cheeks, and I didn't know it.

KREITLER: Were you conscious? Or were you unconscious?

DEVEREUX: I was certainly conscious, but extremely concentrated upon *one* thing and, if you wish, this could perhaps be compared (on a very low level) to what happens in an orgasm in which a real making of Love (capital "L") happens.

SERVADIO: Professor Weiner.

WEINER: Mine is just a kind of lament because I sit here with envy and awe before masters in areas that I would really like to know more about, and not only in terms of experiences, but the subject, the subject of the correlation between sex, frustrations, chastity, and the supernormal experiences, is so important. We know from sources such as the Bible, that Moses receives the divine revelation. But then when it visits him too frequently, he sends his wife away as if there is a contradiction between the two. The Israelites are told before they come to Sinai that they must keep away from women for three days. All cultures have really worked out in a very delicate way the proportions of chastity and sex which can put a person or a culture in a position where one can achieve this kind of incursion. It's so provocative and important a subject that I regret that my own consciousness is clouded at this stage about it. I wish it could be clarified in further sessions.

HEX DEATH

JOAN HALIFAX-GROF

The phenomenon of hex death, although widely reported in the anthropological literature, has received very little systematic attention. Hex death, sometimes referred to as voodoo death, curse death, or death by suggestion, can be defined as the demise of an individual resulting from a malign magical procedure or the breaching of a taboo. It has been described in every major culture area of the world and appears to have existed in every historical period.

Hex death, however, is usually talked about in relationship to preliterate peoples. In fact, some researchers have even postulated preliteracy as a necessary prerequisite to hex death! This, of course, is not the case; it has been frequently observed and described in both southern and northwestern Europe as well as the United States. There exist numerous anthropological, psychiatric, and popular descriptions regarding the effects of malign magic but most of these reports are anecdotal and only a few of them include: pertinent and longitudinal physiological data; and, adequate descriptions of events leading to and surrounding the hex death itself. (An exception to this is Professor Lewis's unpublished doctoral thesis, 1972.)¹

I would like to mention in this context that I too suffer from the same critical lack of data as have my forebears and colleagues. During the years of my clinical anthropological studies, I have never personally witnessed a case of actual hex death. While on the faculty of the University of Miami School of Medicine, I was, however, confronted daily with the perplexing problem of the hexing syndrome, both in the psychiatric setting and in other clinical areas of the hospital. This experience has convinced me that there are some rather specific aspects of the hexing syndrome that are not adequately explained by the existing psychiatric theories, which consider them manifestations of hysteria or schizophrenic psychosis. Moreover, it has become increasingly obvious to me that the conventional medical and psychiatric approaches to hexed individuals are often rather ineffective and inadequate. In staff meetings and seminars, I tried to communicate to the clinicians and

other health care professionals that the hexing syndrome is a complex problem *sui generis* and should be seriously considered. It was not only a matter of teaching clinicians a bit of anthropology, but also of being deeply involved in the therapeutic process, including finding appropriate indigenous healers on occasion. This approach is described elsewhere;² I mention it only because of the paucity of work being done in this area.^{3,4,5}

In my approach to the discussion of hex death, I will, therefore, combine an intimate knowledge of the phenomenon of hexing with literary data concerning hex death *per se*. Study of the existing literature suggests that hex death is a complex multidimensional and multifactorial event. In addition to the emotional, psychological, and physiological factors operating within the individual, it involves an explicit or implicit relationship between the hexer and the hexed; it is also happening in a broader interpersonal and social context set into the larger frame of the cultural milieu. In individual cases of hexing these factors appear in different combinations; yet, for the purpose of this discussion, I have made an effort to isolate several levels of information related to hex death. Briefly, the following factors have been postulated as the direct or underlying cause or causes of hex death: 1) poisons and other physical agents; 2) the critical relationship between emotional factors and physiological processes in the organism; 3) interpersonal and social interactions in a particular cultural context; and 4) parapsychological influences.

We will consider first the most prosaic and obvious cause of hex death, namely *poisons*. Barber (1961),⁶ Clune (1973),⁷ and others argue strongly that hex deaths are to a great degree attributable to poison. Ackerknecht (1965), in his *Problems of Primitive Medicine*, states that about 25% to 50% of the substances found in the aboriginal pharmacopoeia are pharmacologically active. Some of these active substances have unquestionably toxic properties and could be used for the purpose of malign magic. From the hundreds of noxious drugs we could cite, only the most salient will be mentioned in this context. There are the well-known metallic poisons, such as lead, arsenic, and mercurial derivatives, all causing fatal damage to the organism. The infamous plant poison, curare, paralyzes the victim by interfering with neuromuscular transfer. Strychnine, another plant poison, on the other hand, increases the sensitivity of the nervous system to the point of producing tetanic spasms and ultimately death. There are numerous poisonous mushrooms with toxic alkaloids, such as muscarin and phalloidin. A variety of venomous snakes and insects are another plausible source of fatal aboriginal poisons. The skin of the toad, *Bufo bufo*, a favorite ingredient of the witches' brews, contains powerful toxic substances such as bufotenine and bufotoxin, which have psychoactive and cardiotropic properties. The me-

dieval practitioners of witchcraft employed extracts and ointments made from Solanaceous plants, such as the deadly nightshade (*Atropa belladonna*), thornapple (*Datura stramonium*), henbane (*Hyoscyamus niger*), and mandrake (*Mandragora officinarum*). The active substances from these plants can cause drastic mental changes when used in small dosages but are, at the same time, extremely dangerous if the dosage is increased. These or similar substances can be found in the pharmacopoeia of many different cultures.

The following tragicomic case of the "hippity-hoppity heart syndrome" can be used as an illustration of the point in discussion:

Most notorious of root doctors was Dr. Bug who for fifty dollars would guarantee anyone who didn't want to be drafted into the service that he would fail the physical. Violating the usual root doctor tenet, Bug gave his clients a potion to swallow. He had a high percentage of success. In fact, so many young men with a particular type of heart condition were seen by the physicians at Fort Jackson that they named the complaint "the hippity-hoppity heart syndrome." Dr. Bug's downfall came when one of his clients, wanting to make no mistake about escaping the draft, took a double dose. He died. An autopsy showed the potion causing the heart irregularities was a mixture of oleander leaves (*digitalis*), rubbing alcohol, moth balls, and lead.⁸

It should be obvious from this brief description of toxic plant, animal, and metallic substances that aboriginal sorcerers have powerful materials available to them to induce sickness and death in their hexed victims. There are numerous cases, however, where "poison" refers to nonmaterial principles rather than noxious brews. As we will see, poison is not necessarily implicated in all cases of hex death.

We come now to the second category of factors that have been discussed in relation to hex death, namely the *psychophysiological*. Until the early 1940s there had not been serious scientific attempts to explain death due to fear or suggestion and relating this to hex death. In 1942, Walter B. Cannon published his classic paper on voodoo death in which he attempted to explain the physiological mechanisms by which fear can result in the rapid demise of a human being. He approached this problem unusually well prepared by his previous research on fear, rage, hunger, and pain. According to Cannon, intense fear and rage have similar effects in the body and can result in profound physiological disturbances. Both emotions serve an important function in the struggle for existence and are associated with deeply ingrained instincts. In the case of rage, it is the instinct to attack that permits survival; in the case of fear, it is the instinct to escape. The physiological reaction connected with these emotions is mediated by the

so-called sympathico-adrenal system. The activation of this system produces changes in the organs and vessels of the body that prepare the organism for necessary action. If, for whatever reason, such action does not follow, the lasting and intense activation of the sympathetic system can have very destructive consequences for the organism. Cannon described a complicated chain of physiological events that could under these circumstances result in a reduction in the volume of circulating blood and in a critical fall of the blood pressure leading to death.⁹

There exist numerous reports of unusual and puzzling deaths for which Cannon's hypothesis seems to be the most plausible explanation: they involve so called "malignant anxiety" observed during the Spanish Civil War, where young men died without any observable causes (Mira, cited by Cannon, 1958); cases of patients who died after seemingly successful operations (Freeman, cited by Cannon, 1958); and those of unaccounted deaths after minor injuries or ingestion of sublethal doses of poison (Fisher, cited by Richter, 1957).

Richter (1957), an experimental psychologist, has offered an alternative psychophysiological explanation of the phenomenon of sudden death in man (and animals).¹⁰ He approached this problem through his comparative studies of stress reactions in wild and domesticated rats. In his experiments, wild rats' whiskers were trimmed and the animals were then put into a glass jar filled with water. After swimming for a brief interval, they went to the bottom of the jar and never resurfaced. Under the same circumstances, only a few of the domesticated rats succumbed in this comparatively short period of time. Interpreting the results of the physiological analysis of the death of these animals, Richter concluded that they may have died a so-called vagus death due to stimulation of the parasympathetic rather than the sympathico-adrenal system. Here also emphasized the element of hopelessness against that of fear. In this connection, a training exposure of the wild rats to the handling and swimming situation appeared to eliminate the dramatic fatal response. Applied to the phenomenon of hex death, this indicates, according to Richter, that human victims might die a parasympathetic rather than a sympathico-adrenal death. The hexed individual is not set for flight or fight. Rather, the hex situation is characterized as being quite hopeless.

Lester (1972) in a discussion of the hypotheses formulated by Cannon and Richter pointed out that these explanations of hex death are not necessarily mutually exclusive.¹¹ According to Dynes (1969),¹² there are namely two types of death occurring without significant anatomical findings at autopsy: one following prolonged excitement and violence, the other occurring instantaneously and without warning. Lester suggests that these two types might correspond with Cannon's and Richter's models and that sudden

death and hex death can result from excessive stimulation of any system of the body.

Lester himself proposes an alternative conceptual framework for hex death that focuses on psychological rather than physiological factors. The basic ideas for this approach are derived from Engel's research into the circumstances surrounding the onset of illness and, in some instances, death. He observed repeatedly a pattern that he calls "the giving up—given up complex."¹³ Its essential features are an experience of helplessness and hopelessness, feelings of worthlessness and incompetence, inability to obtain gratification from interpersonal relationships, and reactivation of memories of earlier giving up and of situations that were not adequately resolved. According to Engel, when an individual is responding to stress with the "giving up—given up complex" the body is more prone to illness and has a reduced capability to deal with potentially pathogenic process. Lester points out that a hexed individual meets all the criteria of Engel's complex.

Although we do not have a unified psychophysiological theory explaining the mechanism of hex death, it is certainly significant that reputable researchers have not found this phenomenon incompatible with their medical knowledge and have made valid and useful attempts to elucidate it in scientific terms.

Up to this point, we have taken into consideration in our discussion of hex death only those forces operating within the individual, forces of a physical and psychophysiological nature. The situation of a hexed individual, however, has to be considered in relationship to a social context and cultural continuity. The process of hexing is not happening in isolation between sorcerer and victim. Rather, a hexed individual lives and is hexed within a community of significant others. Ultimately, all of the individuals in the hexed victim's social network will be involved in various ways and to varying degrees in the dynamics of the hex. This brings us to the third category of factors involved in hex death, the relevance of *social and cultural determinants*.

All members of a particular culture in which hexing exists share the knowledge, beliefs, expectations, and fears regarding hexing and its outcome. This knowledge can set into motion a realignment of the social network. A hexed individual, as a result of the curse put on him, can find his role and place in the community drastically redefined; he can withdraw or be forced to the very margins of his social world. In the profound social isolation that follows, he can experience a total frustration of primary and derived needs—basic material, emotional, and spiritual needs—that are usually satisfied in interpersonal interaction. An individual in this situation usually responds very sensitively to the expectations of his community, whether the cues of the outcome of the hex are explicitly stated or mediated

through metacommunication, or whether knowledge of the outcome is part of the social order and the sequence of events is so prescribed and predictable that only hopelessness and frequently helplessness can ensue on the part of the victim.

In terms of mechanisms of hex death, it is not difficult to imagine that such total isolation from, or distortion of, meaningful relationships, compounded by the threat of imminent death, could result in overwhelming anxiety of malignant proportions. The combination of prolonged intense emotional stress, social isolation, sleep deprivation, and frequent refusal of food and water can produce an unusual state of consciousness in the hexed person that is associated with heightened suggestibility. It is a well-established clinical fact that autosuggestion as well as suggestion can have a direct influence on a variety of physiological functions. Examples belonging to this category range from blisters artificially induced by means of hypnosis in the laboratory setting to instances of stigmatization and pseudocyesis. Thus, social and cultural factors involved in the hex situation contribute to a chain of events that can have very distinct and concrete biological consequences.

Isolation of the victim and withdrawal of the community is not, however, the only pattern of social realignment observed in cases of hex death. A hexed individual can also be moved to the center of the social network, either for the purpose of removing the hex or in order to complete the logical sequence of culturally determined events. In this situation, direct social pressure and even sensory overload can facilitate an unusual state of mind conducive to healing or the annihilation of the individual.

An interesting example of a variety of social locations in order to complete the hex state trajectory is given by W. L. Warner, who worked among the Aborigines of the northern territory of Australia:

There are two definite movements of the social group in the process by which black magic becomes effective on the victims of sorcery. In the first movement the community contracts; all people who stand in kinship relation with him withdraw their sustaining support. This means that all his fellows—everyone he knows—completely change their attitudes toward him and place him in a new category. He is now viewed as one who is more nearly in the realm of the sacred and taboo than in the world of the ordinary where the community finds itself. The organization of his social life has collapsed, and, no longer a member of a group, he is alone and isolated. The doomed man is in a situation from which the only escape is by death. During the death-illness which ensues, the group acts with all the outreachings and complexities of its organization and with countless stimuli to suggest death positively to the victim, who is in a highly suggestible state. In addition to the social pressure upon him the victim himself, as a rule, not only makes no effort to live and

to stay a part of his group but actually, through multiple suggestions which he receives, cooperates in the withdrawal from it. He becomes what the attitude of his fellow tribesmen wills him to be. Thus he assists in committing a kind of suicide.

Before death takes place, the second movement of the community occurs, which is a return to the victim in order to subject him to the fateful ritual of mourning. The purpose of the community now, as a social unit with its ceremonial leader, who is a person of very near kin to the victim, is at last to cut him off entirely from the ordinary world and ultimately to place him in his proper position in the sacred totemic world of the dead. The victim, on his part, reciprocates this feeling. The effect of the double movement in this society, first away from the victim and then back, with all the compulsive force of one of its most powerful rituals, is obviously drastic.¹⁴

The frequent readiness of members of a particular community to participate in or corroborate the consummation or reversal of a hex could be related to the fact that in many cases hexing plays an important part in creating social solidarity; taboos are essential for the maintenance of the social fabric and their violation could lead to disruption of the social order. The stance of the group towards the hexed individual could possibly be explained in the following terms: if culture-bearers have an ambivalent attitude toward the taboos of their society, their relationship to the hexed victim could represent a projection of each individual's own struggle against violating the taboo that the hexed person himself has violated.

In terms of social function, most anthropologists would agree that sorcery and hexing, one of the mechanisms of witchcraft, serve as a means of social control in many communities. The fear of being hexed tends to prevent individuals from violating social rules as well as breaching religious taboos. Beatrice Whiting (1950)¹⁵ and Guy Swanson (1960)¹⁶ aptly demonstrate that witchcraft is more prevalent in those societies where higher secular authority does not exist or where this authority cannot mete out punishment for transgressions against the social or religious order. According to Swanson, the existence of witchcraft has very little to do with economic deprivation but is strongly associated with the level of social organization.

No matter how one interprets the social functions of hex and hex death, the fact remains that the community plays a vital role in the fulfillment of the curse or its reversal, depending on the specific circumstances of individual cases. In view of the paramount significance of social factors in human existence, it is not surprising that manipulation of social variables in terms of inclusion into the community or rejection by it can dramatically affect the hexed individual's emotional and physiological well-being and, ultimately, the fact of his survival.

In the preceding text, we have explored some of the most important physical, psychophysiological, and social variables involved in hex death. At this point in our discussion, the question arises whether there exists a sufficient basis for postulating yet another category of variables operating in death by curse, namely, *parapsychological factors*. Certainly, the previously discussed parameters, or a combination thereof, offer plausible explanation for most of the cases of hex death. There are, however, aspects of certain cases of hex death and of the process of hexing reported in the literature for which such scientific interpretations would appear to be inadequate. In spite of the fact that incomplete and often unreliable reporting of these events make it rather difficult to offer a conclusive analysis, it appears to be worthwhile to consider which characteristics of these cases do not render themselves to explanations based on the existing scientific paradigms. In some instances, it is the striking accumulation of deaths attributed to hexing, the quite specific timing, and unusual circumstances that are difficult to account for and explain in strictly scientific terms. In other instances, it is not easy to identify or postulate the factors that could be instrumental in a causal chain of events responsible for a specific hex phenomenon. Finally, it is not exceptional that the performance of the sorcerer, shaman, or exorcist involves some rather unusual elements suggestive of psi phenomena.

The most famous examples of multiple and serial hex deaths are, of course, the instances of curses related to the violation of ancient tombs and relocation of sacred objects. We can cite the story of the discovery of Tutankhamen's tomb in the Valley of the Kings as an example of this particular genre. These situations are often colored by sensationalistic journalism; however, it is not difficult to discover similar examples in more sober frameworks. Thus, Melford Spiro, in *Burmese Supernaturalism* describes an interesting case of multiple deaths attributed to witchcraft:

The case begins with a woman who, without any previous symptoms, died while bathing at the village well. A few days later her elder daughter died of a scorpion bite and her younger daughter was smitten with a strange swelling of the body from which, shortly after, she too died.¹⁷

Although these deaths were considered by the villagers to be witch-caused, Spiro unfortunately does not give any of the contextual details of this case.

Another example of this category is a medically well-documented case published in 1967 in the *Bulletin of Johns Hopkins Hospital*. On the 29th of July, 1966, a 22-year-old Afro-American woman was admitted to Baltimore City Hospital because of shortness of breath and episodes of chest pain and syncope of one month duration. After having been hospitalized for fourteen

days, the patient disclosed to her physician that she had a "serious problem and only three days to solve it." She volunteered the following details:

She had been born on Friday the thirteenth in the Okefenokee Swamp and was delivered by a midwife who delivered three children that day. The midwife told the mothers that the three children were hexed and that the first would die before her sixteenth birthday, the second before her twenty-first birthday, and the third (the patient) before her twenty-third birthday. The patient went on to tell her physician that the first girl was killed in an automobile accident the day before her sixteenth birthday. The second girl was quite fearful of the hex and on her twenty-first birthday called a friend and insisted on going out to celebrate the end of the hex. She walked into a saloon, a stray bullet hit the girl and killed her.¹⁸

The patient was firmly convinced that she was doomed. She appeared to be terrified and manifested signs of profound anxiety. On August 12th, she died—one day prior to her twenty-third birthday.

Although the clinicians and pathologist concurred on the diagnosis of primary pulmonary hypertension, the organic findings did not provide a sufficient explanation of her death and particularly its specific timing. Freisinger, Assistant Professor of Medicine at Hopkins, made this comment in his discussion of the case:

The other factor in this woman's death is the hex. I have no doubt that the pathologist will be able to demonstrate anatomic changes which can be held accountable for her death. However, I am equally certain that he will not be able to rule out the hex as the real cause of her death. It seems very clear that she was hexed at the time of her birth and she died precisely at the time predicted. . . . It is not a part of our society and hence we know little about it; I suspect many of us would prefer to think it did not exist. Special circumstances and beliefs in a community must exist before an individual can die by hex, but once the proper background and individual conditioning exist, there is no reason why (the described physiological processes) . . . cannot occur and lead to death, at the proper time.¹⁹

In addition to the cumulative nature of this case making a coincidence highly improbable and the accuracy of the timing of the three deaths, one more aspect of this situation deserves attention. Only in the case of the last young woman can the death be explained from forces operating within the organism. Regarding the death of the first girl, there is insufficient information that would make it possible to assess the role she played in the automobile accident. However, where a stray bullet was the cause of death, the critical factors lie in this case outside of the hexed individual. An obvious weakness of this otherwise fascinating case is lack of information about how

carefully and closely the doctors from Johns Hopkins verified the claims of the patient concerning the deaths of the other two victims.

The second aspect of hexing that might entail parapsychological dimensions has less to do with statistical probabilities than the former. Rather, it is concerned with certain elements of hexing that seem to transcend the usual limitations of the time/space continuum. Unfortunately, most of the reports mentioning these kinds of phenomena are not well documented and are often dubiously regarded by anthropologists, clinicians, and historians. Because of the rather poor quality of most of the data, we must approach this category only on a theoretical level, enriched with anecdotal material.

There are numerous reports about individuals developing typical symptomatology related to hexing without any knowledge that a sorcerer has conducted a hex-inducing ritual. Harner,²⁰ for example, notes that one of the distinguishing characteristics of the process of hexing among the Jivaro is that the victim is given no indication that he is being bewitched, lest he take protective measures. Harner's informants say that sickness almost invariably follows an attack with a magical dart, the regurgitated tsentsak, and death is not uncommon.

In some instances, the victim of so-called simulated magic supposedly develops specific symptoms the onset of which coincides with the sorcerer's manipulations of the individual's symbolic image, whether it is a doll, clothing of the intended victim, body exuviae, nail parings or hair, dirt from the tracks of the victim, a photograph, or even an x-ray photo. It has also been described that, occasionally, a hexer is able to follow his victim's movements in his "mind's eye" or by using a special mirror and thereby monitor the consequences of the hexing procedure. Alfred Metraux described the Haitian sorcerer who, through an incantation, attempts to lure the intended victim into a bucket of water.²¹ If his victim's image appears on the water's surface, he then stabs it. The water reddens if the sorcerer has been successful. Another variation of this type of procedure is cited by Robert Caneiro in his work with the Amahuaca of eastern Peru.²² He reports that the shaman, after ingesting ayahuasca, can contact the jaguar spirit which discloses to him the whereabouts of his witchcraft victim. Although such situations seem quite fantastic, these and others like them have been so frequently reported in various parts of the world that they certainly deserve systematic exploration *in the field*. I emphasize field research because of the complexity of the phenomena vis-a-vis set and setting; it is highly improbable, if not absurd, to attempt to replicate such experiences in the laboratory. From this point of view, it is necessary to differentiate between so-called objective reality and the phenomenological reality of the subjective world of the sorcerer.

For the last point of our discussion of parapsychological dimensions of hexing, we will explore the display of paranormal abilities on the part of the sorcerer. It is not uncommon for such an individual to demonstrate psi ability on (at least) the first interaction with a client. This level of expertise and performance would most certainly establish the sorcerer in a position of authority in the eyes of his client and, undoubtedly, in the eyes of the community. In fact, he is not only in a position of special authority but can also be perceived as dangerous, because he is capable of penetrating and ultimately manipulating individuals and sequences of events. The sorcerer, as well as the diviner and healer, has often been characterized as a shrewd psychologist, able to elicit information from his clients in a most skillful and subtle manner. Sorcerers have also been endowed in the literature with extraordinarily long memories and sharp ears. In spite of these explanations given by social and behavioral scientists for the acumen demonstrated by such individuals, there are many reports in the literature that tell about events which intuition, memory, and access to gossip simply cannot adequately explain. Numerous accounts ascribe to sorcerers and healers the ability to make instant diagnosis of medical problems, to penetrate immediately the personalities of their clients and their basic psychological conflicts, to have access to material from the individual's past history, and to predict correctly future events.

One aspect of hexing and hex death that has been considered by some witnesses to be indicative of involvement of paranormal forces is the consistently reported helplessness of Western medicine to cope with these phenomena. The failures of experienced clinicians to prevent the consummation of a hex and save the patient's life are notable. (Examples are cited in: Cannon, 1958;²³ Prince, 1960;²⁴ Boitnott, 1967;²⁵ Tingling, 1967;²⁶ Watson, 1973;²⁷ and others.) This contrasts sharply with the quite dramatic therapeutic successes of indigenous healers to remove a death curse put on an individual. (Examples are cited in: Richter, 1957;²⁸ Cannon, 1958;²⁹ Wilson, 1963;³⁰ and others.) This situation, however, is not necessarily a proof of supernatural forces operating in hex death. It can simply suggest the lack of understanding on the part of Western medicine of the complexity of this phenomenon and the significance of specific psychological and sociocultural variables in the etiology of the hex syndrome. In such instances, clinicians would benefit from the consultation with an anthropologist experienced in the culture of the cursed individual and/or the collaboration with an indigenous healer. It seems that, because of the nature of this problem, the effective remedy must come in a specific and culturally appropriate form that contemporary medicine does not usually offer.

It would be interesting in this context to approach the problem of the

relevance of parapsychological factors for hex death from yet another perspective. It is possible to look at the phenomena postulated and studied by parapsychology and hypothesize which of them, if proved beyond any doubt, could be considered instrumental in the hexing procedure. The most obvious of them, of course, would be "telepathic control" and psychokinesis. (It was Robert Van de Castle who suggested to me that psychokinesis might be a relevant mechanism to explore in relation to hex death.) In the former case, the hexer could directly influence the emotional condition and thought processes of an individual and produce a state of mind, such as malignant anxiety or Engel's "giving up—given up complex," that could have catastrophic biological consequences. In the latter case, it is conceivable that direct psychokinetic influence could be exerted on certain parts of the body that are crucial for survival, such as the pacemaker in the heart and the cardiac conduction system, or certain areas in the central nervous system that are vitally important and crucial for survival. Numerous instances of telepathic control and psychokinesis have been reported in the parapsychological literature, including the recent experiments in the Soviet Union (Krippner, 1972, 1973;^{31,32} Herbert, 1973),³³ and well controlled experiments with Uri Geller at Stanford Research Institute in Palo Alto (Mitchell, 1973;³⁴ O'Regan, 1973).³⁵ If confirmed, the psychokinetic experiments in which the Russian psychic, Mrs. Kulagina, succeeded in stopping a frog's heart would be of special relevance in this context (Herbert, 1973).³⁶

Three other parapsychological phenomena that have been studied both in the laboratory and in the field are telepathy, clairvoyance, and precognition. Gifts for telepathy and the ability to make an instant diagnosis of physical and psychological problems could be exploited by the sorcerer, not only for impressing the victim and his social network and, thereby, enhancing his authority and power of suggestion, but also for identifying the physical and psychological "loci minoris resistentiae" in the individual to be hexed. Such knowledge could then be utilized for specifically destructive manipulations by other means. In terms of precognition, there exist cases of hexing and hex death that theoretically could be explained in terms of this mechanism rather than direct malign influence.

One more theoretical consideration deserves notice in this connection. Lawrence LeShan (1969),³⁷ a prominent researcher in the area of psychic healing, has made an attempt to formulate a comprehensive theory of the paranormal. According to LeShan, our understanding of reality and our interaction with it is determined by our way of perceiving the world. Throughout mankind's history, reality has been perceived in a variety of ways. These perceptions oscillate widely between two extremes. One extreme could be exemplified by the Newtonian world view. It has the

following set of postulates or principles: matter is real and solid; valid information about the world comes to us only through the senses; causes must precede effects in time; and objects separated by space are different objects. Our practical life and the ordinary activity of physical existence are confined by these limiting principles. This is also true for the mainstream of contemporary science. The other extreme is the mystical world view. It has an alternative set of postulates: the true nature of the world is consciousness and matter is only ephemeral; there is a better way of gaining information than through the senses (and intellectual processing of sensory data); there is no reality to time; and there is a basic unity of all things.

According to LeShan, the process of psychic healing can be explained by the fact that the healer operates on the basis of the set of postulates characterizing the mystical world view and this has practical consequences; during the healing process, the healer and the ailing individual are part of the same psychophysical field and are not separate from each other, as it appears to the Newtonian observer. This model, interestingly, can be applied without any change (except in terms of intentionality) to the situation of hexing. In this case, the manipulations in such a unified field would be used for destructive purposes rather than healing of the individual. This conceptual framework that appears so alien to our pragmatic, intersubjective, group-validated world view is, in fact, in agreement with revolutionary developments in modern physics, and, in particular, with the basic concepts of Einstein's unified field theory.

In conclusion, I hope that I have succeeded in conveying the multidimensional nature and complexity of the phenomena of hexing and hex death. As groundwork has been done by anthropologists, psychologists, and physiologists in this area, establishing hex death as a subject worthy of further scientific exploration, it seems that the way is now open to explore the parapsychological dimensions that might possibly be involved.

One of the major problems in studying hexing and hex death in the past has been the seemingly irreconcilable conflict between the ideological and epistemological superstructures that frame such events and the accepted traditional Western scientific paradigms that are employed to analyze them. One approach that might obviate to a certain degree the frequent ethnocentric bias that permeates and ultimately distorts or obscures many anthropological accounts of possible parapsychological events would be to study separately the observable elements of an event itself and then to explore the underlying belief system. In other words, one would analyze and evaluate the processes and mechanisms involved and the outcome, and then obtain the culture-bearers' interpretations of such mechanisms and their explanation of the outcome achieved.

These two perspectives would be described by some anthropologists as "etic" and "emic." Etic, as defined by Marvin Harris,³⁸ refers to "the domains or operations whose validity does not depend upon the demonstration of conscious or unconscious significance or reality in the minds of the natives"; emic indicates in this context "the domains or operations whose validity depends upon distinctions that are real or meaningful (but not necessarily conscious) to the natives themselves." In other words, the etic/emic distinction corresponds roughly to how people behave according to the judgment of a Western scientific observer in contrast to how the subjects perceive and explain their behavior themselves.

The potential heuristic value of this approach to me seems great. In the areas of psychopharmacology and psychology alone many revolutionary pharmacologic substances as well as psychotherapeutic techniques have been garnered from ancient and aboriginal cultures. Indeed, hexing and hex death have strong implications in the area of research being done on stress in technologically developed areas of the world. In terms of parapsychological research, it should prove to be an extremely rich area as it is accessible and researchable in Baltimore as well as the bush, and its phenomenology exists in the physical world as we know it and beyond.

REFERENCES

1. LEWIS, G. A., *The Recognition of Sickness and Its Causes: A Medical Anthropological Study of the Einu, West Sepik District, New Guinea*. Unpublished doctoral dissertation, London University, 1972.
2. HALIFAX-GROF, J. S., *Interaction Between Indigenous Healing Systems and Contemporary Medicine*. A paper presented at the Annual Conference of the American Academy of Psychotherapists, New York City, 1972.
3. TINGLING, D., "Voodoo, Rootwork and Medicine," *Psychosomatic Medicine*, No. 29 (1967), p. 483.
4. WINTROB, R., FOX, R. A., AND O'BRIEN, E. G., "Rootwork Beliefs and Psychiatric Disorder Among Blacks in a Northern United States City." Presentation at the Symposium on Traditional and Modern Treatments of Indigenous American People, Fifth World Congress of Psychiatry, Mexico City, 1972.
5. HALIFAX-GROF, J. S., *Indigenous Healing Systems and Contemporary Medicine: Toward an Integration of Approaches*. Unpublished doctoral dissertation, Union Graduate School, 1973.
6. BARBER, T. X., "Death by Suggestion: A Critical Note," *Psychosomatic Medicine*, No. 23 (1942), p. 153.
7. CLUNE, F. J., "A Comment on Voodoo Deaths," *American Anthropologist*, No. 75 (1973), p. 312.
8. MICHAELSON, M., "Can a 'Root Doctor' Actually Put a Hex on or Is It All a Great Put-on?" *Today's Health*, March, 1972, p. 58.
9. CANNON, W. B., "Voodoo Death." In *Reader in Comparative Religion: An Anthro-*

- ological Approach*; W. Lessa and E. Vogt, eds. (New York: Harper and Row, 1958).
10. RICHTER, C. P., "On the Phenomenon of Sudden Death in Animals and Men," *Psychosomatic Medicine*, No. 19 (1957), p. 190.
 11. LESTER, D., "Voodoo Death—Some New Thoughts on an Old Phenomenon," *American Anthropology*, No. 74 (1972), p. 386.
 12. DYNES, J. B., "Sudden Death," *Diseases of the Nervous System*, No. 30 (1969), p. 24.
 13. ENGEL, G. L., "A Life Setting Conducive to Illness," *Bulletin of Menninger Clinic*, No. 32 (1968), p. 355.
 14. CANNON, W. B., *op. cit.*, citing W. L. Warner, p. 435.
 15. WHITING, B., *Paiute Sorcery*. Viking Fund Publications in Anthropology, No. 15 (New York, 1950).
 16. SWANSON, G. E., *The Birth of the Gods: The Origin of Primitive Beliefs* (Ann Arbor, Mich.: University of Michigan Press, 1960).
 17. SPIRO, M. E., *Burmese Supernaturalism* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1967), p. 27.
 18. BOITNOTT, J. K., "Clinicopathological Conference: Case Presentation," *Bulletin of Johns Hopkins Hospital*, No. 120 (1967), p. 186-187.
 19. BOITNOTT, J. K., *op. cit.*, pp. 9-10.
 20. HARNER, M., "The Sound of Rushing Water." In *Hallucinogens and Shamanism*; M. Harner, ed. (London: Oxford University Press, 1973), p. 21.
 21. METRAUX, A., *Voodoo in Haiti* (New York: Schocken Books, 1959), p. 272.
 22. CANEIRO, R. L., "The Amahuaca and the Spirit World," *Ethnology*, No. 3 (1964), p. 10.
 23. CANNON, W. B., *op. cit.*
 24. PRINCE, R., "Curse Invocation and Mental Health Among the Yoruba," *Canadian Psychiatric Association Journal*, No. 5 (1960), p. 65.
 25. BOITNOTT, J. K., *op. cit.*
 26. TINGLING, D., *op. cit.*
 27. WATSON, A. A., "Death by Cursing—A Problem for Forensic Psychiatry," *Medicine, Science and the Law*, No. 13 (1973), p. 192.
 28. RICHTER, C. P., *op. cit.*
 29. CANNON, W. B., *op. cit.*
 30. WILSON, M., *Good Company* (Boston: Beacon Press, 1963).
 31. KRIPPNER, S., Presentation at the Annual Conference of the Association for Humanistic Psychology, Squaw Valley, Calif., 1972.
 32. KRIPPNER, S., Presentation at the conference "Psychic Healing: Myth into Science," New York, 1973.
 33. HERBERT, B., "Spring in Leningrad: Kulagina Revisited," *Journal of Parapsychology*, No. 7 (1973), p. 92.
 34. MITCHELL, E., Presentation at the Fifth Interdisciplinary Conference on Voluntary Control of Internal States at Council Grove, Ka., 1973
 35. O'REGAN, B., Personal communication, 1973.
 36. HERBERT, B., *op. cit.*
 37. LESHAN, L., *Toward a General Theory of the Paranormal*. Parapsychological Monograph No. 9 (New York: Parapsychology Foundation, Inc., 1969).
 38. HARRIS, M., *Culture, Man and Nature* (New York: Thomas Y. Crowell and Co., Inc., 1971), p. 632.

DISCUSSION

HARDY: Thank you very much for this really fascinating study, if I can use the word for something macabre.

DINGWALL: I've been looking forward to this paper ever since it was announced. The phenomenon of hex death has interested me for a very great number of years because there are close connections with what is called hex death with the whole problem of the relation of mind to body and disease. Of course, Cannon and Dunbar pointed the way towards the study of psychosomatic medicine and in spite of the great amount of work which has been done since, I can't see that we're very much advanced. The whole problem of hex death is, as I say, connected with the problem of so-called spiritual/mental healing about which we still live in a state of complete chaos. I remember many years ago I contributed a paper on the "Enigma of Lourdes" to *Tomorrow* magazine. I will point out some of the enormous problems which we have to face. In the case of hex death, we've had such a case in England within the past five years, a very curious case in which clearly the medical men involved had no idea of what the whole problem was with which they were dealing. They just reported the death as unexplained. But there has been a certain amount of work done, and I was somewhat surprised that our speaker did not mention the "diver reflex" theory.

You remember, our distinguished parapsychologist, Charles Richet I think somewhere in the 1890s, was experimenting with diving birds and made a whole series of experiments on ducks, and he found (what later has been called the "dive reflex theory") that in the deep diving, there is a conservation of the oxygen supply and this slows the heart rate. Now, he didn't see at that time (as far as I remember) any connection with these mysterious deaths, but it has been suggested later that hex death is a sort of perverted dive reflex in reverse. That is to say, in some mysterious way the heart gives the order when the person is to die. Now as you know, unfortunately, in England sufficient post-mortems aren't done because of some nonsense on the part of the relatives' objections, but there are certain post-mortems done on coronary patients, and in these cases it has been found the damage to the heart muscle is apparently not nearly sufficient to cause the death of the patient; and there have been a number of cases of this sort in which apparently there has been a sort of order. I don't want to discuss any of these parapsychological implications because I don't think parapsychology has anything whatever to do with the hex death. Of course, it may, but I doubt it. It seems to be as if the heart is, in certain cases, exercising this dive reflex theory in reverse. You'll find this in these cases of

people who don't mean to commit suicide; in so many words, the hex death can be regarded, in some respects at least, as a form of suicide in which perhaps the patient objects, so the brain does it for him. In other words, the brain gives the order and the dive reflex theory is put into reverse gear so to speak. Now, if that is the case, we might possibly have the beginning of a clue as to what is happening not only with hex deaths, but in other things of that kind—because it's quite clear that in the case of spiritual or mental healing, there must be some common factor present. There must be some common factor which is being exercised in some way by the person concerned, and we have no idea at the moment what that common factor is. That's all I have to say except to ask our speaker after her fascinating address, whether she has looked into this dive reflex theory.

HALIFAX-GROF: No, but it sounds not unlike Richter's "parasympathetic theory."

DINGWALL: I think some experiments were done in Oakland, California.

HALIFAX-GROF: I would like to respond to one thing. I have worked with many hexed individuals when I was at the University of Miami School of Medicine. There I observed two very distinctive psychophysiological reactions in hexed individuals. One can be characterized as an anxiety state. The other would be characterized as a state of depression without manifest symptoms of anxiety. These two states could possibly account for the theories proposed by Cannon and Richter involving the sympathetic system and the parasympathetic system. You see, there can be shifts in a hexed individual's attitude which could stimulate systems alternately. In fact, I believe that Cannon and Richter's theories are a simplification of what really happens to a hexed individual, but, nonetheless, as frameworks, they can be useful.

DINGWALL: We do know that the dive reflex has been demonstrated in man.

BRIER: I wonder about the anecdotal stories you told. You mentioned the Baltimore case as your strongest case. I was wondering how carefully these people look into these things. For example, regarding the other people who were killed—was it checked out to make sure that these people were in fact killed this way or did they just take the woman's word?

HALIFAX-GROF: Quite frankly, I took it for granted. The reason I say this is the most carefully documented case of hex death is because we have all the medical data from the time of admission of this woman to her death and the results of autopsy. In terms of the contextual details, we have

nothing but her word. No one went down to the Okefenoke swamp and tried to find that midwife. No one checked out the story with regard to the two other individuals. However, in terms of the psychophysiology, we do have more data than any other case that I know of. But I agree with you and that's one of the frustrations I have experienced, and I learn now from Ioan Lewis that Gilbert Lewis has recently done a dissertation on hex death. He's both a psychiatrist and an anthropologist, and he's done a longitudinal psychophysiological study of hexing in a group of New Guinea tribesmen.

BRIER: The only other thing I wanted to mention: I agree with you at the end when you say all we have is anecdotal material and it's very difficult to do experimental work in this area. I think it is possible, though. Let me tell you a story that happened with a student of mine in class dealing with hex death. I used to teach a course called "Parapsychology of the Occult," in which I dealt for a third of the term on witchcraft and covered in some detail hex death. I had one student in the class—these classes very often bring together a bunch of these people who believe or claim many things—who claimed he had the ability to perform hex deaths. For his term paper, he rather wanted to prove his ability, and what we agreed upon was this: Now we couldn't have him try to kill just anyone—that wouldn't be fair or nice, right? So we agreed that he would attempt by hex death to kill me. The way we worked it out was, I left a sealed envelope with the registrar on which I wrote: "Open this upon my death if it occurs within the next year." Inside, a note said that the student should be given an "A" for the course. The student and I agreed that if I didn't die, I would give him an "F" for the course. He has since gotten an "F" for the course. But I think it is possible to experimentally test these hypotheses. I think there are a lot of people around who would be willing to be targets for people who claim they can perform hex deaths, myself included, and then we can test it.

HALIFAX-GROF: I appreciate very much your courage or foolishness, Mr. Brier. I'm not sure which it is.

BRIER: I've just never seen any evidence of hex death.

HALIFAX-GROF: Earlier, we were discussing the fact that it is not very difficult to do research with people who are hexed. They come into the clinical situation every day. As I mentioned earlier, I have worked with many people who said they were hexed. There are two dimensions of the subjective experience of hexing that I would like to briefly mention at this time. One case is the individual who learns he's hexed and develops the appropriate symptoms; or perhaps he doesn't know he's hexed but he gets symptoms and then you actually do find out that a hex has been put on

him. The other situation is the individual who is genuinely mentally ill and attributes his illness to hexing. Whatever the case may be, complications emerge for the researcher who must work in the clinical situation. For example, if I am interested in doing psychophysiological research on hexing, but patients are being given a phenothiazine, the data become extraordinarily distorted and you might as well not bother. A person who is hexed is in a jam, and, for my part, I've not wanted to take the responsibility of attempting to discover some deep principles when the life and well-being of a single individual is at stake. I think we can find other ways to do it. In terms of hexing, we should proceed as ethically as possible, because these people are sick, for one reason or another.

WEINER: I agree that it is very difficult to document anything like a hex death or a hex illness. The capacity of human beings to see the same thing at the same time and yet to make different reports is so obvious that one almost despairs at this kind of documentation. I was wondering if there's another field—a way of research—if one takes a kind of lower denominator. So many claims have been made recently for the influence of a human being on the plant world in terms of definitely measurable effects. I heard recently of an experiment whereby some individuals went into a room and one of them cut a plant and then some sort of delicate electrical instrument was attached to the plant; then different individuals came in but only when the person who had done the cutting came in did a plant reaction appear. I wonder if there is anybody in this distinguished company who knows whether there has been any real definite proof of the effect of a human being and his vibrations or his toxic personality or his ill wishes or whatever it may be—any measurable effect which has been really proven on the plant world?

HALIFAX-GROF: I'm sure we are all familiar with the research done by Backster and the attempts to replicate it. In fact, I was in his laboratory where, apart from plants, he was also working with eggs, yogurt, and brine shrimp. I saw his polygraph outputs and I was there when he put electrodes into the yogurt and then stressed another batch of yogurt. I think it's quite interesting material. Many people have tried to replicate Backster's research and to my knowledge with questionable success. In fact, I found his instrumentation quite primitive, and I can't imagine that it would be difficult to replicate his studies. But he seems quite committed to the fact that what he is doing is scientifically sound.

KREITLER: Is there any information of a hex killing animals? If there is, that would be a good area for research.

BOSHIER: My name is Adrian Boshier. I agree with the speaker that field

work is essential, and I have at the moment—it sounds rather morbid—I have a patient that I'm watching very closely because the last time I was present, this man was hexed. The warning was that first he would lose his goats, and then he would lose his cattle and thirdly, he would die. First his goats were struck by lightning. Somewhat afterwards, his cattle were struck by lightning and the last I heard he was still alive and I hope he remains so.

HALIFAX-GROF: Dr. Kreitler asked if any hex death research had been done on animals.

BOSHIER: I can't answer that, except that in that case the animals had died.

HALIFAX-GROF: Yes, but you see, hex death does not necessarily involve an individual going into some sort of systemic crisis. It can be external factors, such as a stray bullet or an automobile accident or lightning, or whatever.

BOSHIER: Lightning is very very common in South Africa. This is used regularly. I was present when this happened. I saw the remains of his goats and his cattle and I know that this happened, but I have many cases second-hand of individuals being killed by lightning. This is the most common form, I think.

HALIFAX-GROF: That's very interesting. I know of no research that has been done on animals and I would think that would be amenable to the laboratory.

LEWIS: I want to say how much I enjoyed Joan's paper. I was very interested in her comment at the end of her paper: the comparison she drew between what she is talking about or certain aspects of the contextual atmosphere of hexing and current psychodynamic psychiatric theory. I recently read a textbook on transcultural psychiatry by a well-known psychiatrist called Ari Kiev in which there was a very ironic passage, but he didn't realize it was ironic. And he said it wouldn't be a very good idea to introduce, or at least one should exercise caution in introducing, modern psychodynamic therapy and theory into cultures where there was existing witchcraft. He didn't seem to understand the irony of the remark he was making because the two systems are very similar, of course. Actually, there was one point which you touched on but it wasn't at all central to your analysis, but it's a point which tends to be very central in most of the writings by British anthropologists on witchcraft. That is, the way in which, in a sense, it is arguable as to who is the victim. Is it the witch or is it the bewitched person? You were treating the bewitched person as the

victim, of course, because ultimately he died and obviously that's rather a catastrophic event. But of course, it's equally arguable that if you look at it from another point of view and especially if the bewitched person doesn't die—or even if the bewitched person does die—the witch, or accused witch, is also the victim, because the nexus of accusation is of course a form of scapegoat. Also, I wonder to what extent you had taken into account the fact that very frequently accusations of witchcraft and sorcery are made retrospectively, i.e., after disaster. They do not precede it. They are presumed to precede it because they are assumed to be its cause, but actually they come into the picture as factors in the condition, that is, once the person has suffered misfortune or had an accident as someone else might describe it, or whatever.

HALIFAX-GROF: That meshes with the point I was making earlier when I was saying that there appear to be two very distinctive types of hexed individuals: those who get sick because of hexing; in other words, they developed symptoms after they learned of it; and the others who later attributed it to hexing. In the case reported by Mel Spiro, he refutes a "so-called" supernatural cause.

LEWIS: He's very naive.

HALIFAX-GROF: One thing I didn't tell you about the Burmese case is that according to Spiro, the villagers attributed the death of these three women to sorcery after they had died, not prior. Now that could be bad as well as good anthropology. One just doesn't know at this point.

HARDY: I'm afraid we must close. Now we come to Robert Van de Castle's paper "An Investigation of Psi Abilities among the Cuna Indians of Panama." As you know, he is the past president of the Parapsychological Association and now Director of the Sleep and Dream Laboratory in the Department of Psychiatry at the University of Virginia.

VAN DE CASTLE: Before starting, I would like to make grateful acknowledgment to the Parapsychology Foundation, to Mrs. Eileen Garrett and Mrs. Eileen Coly for the financial support that has made possible the field trips that I'll be discussing.

AN INVESTIGATION OF PSI ABILITIES AMONG THE CUNA INDIANS OF PANAMA

ROBERT L. VAN DE CASTLE

It is extremely unfortunate that the study of paranormal events among non-Western societies has been so sadly neglected by both anthropology and parapsychology. This negligence has hampered the development of both fields.

Since anthropologists, heretofore, have not generally seriously considered the possible reality of paranormal events, they have been reduced to explaining the persistence of magical practices primarily on the basis of sociological principles involving intra-group tensions. An equally plausible explanation would be that magical practices persevere because a learning schedule has been established that is maintained through the aperiodic reinforcement provided by the occurrence of genuine psychic events. Acceptance of paranormal phenomena would also cause a reassessment of how the shaman or other magical practitioner is viewed by anthropologists. The shaman is currently seen as psychotic because he keeps insisting that he is able to demonstrate phenomena which the anthropologist "knows" are nonexistent. The shaman must therefore be delusional since the anthropologist has ruled out the possibility of any correspondence existing between the shaman's perceptions and beliefs and the way the "real world" of the anthropologist operates.

The ethnocentric bias which can become instilled in any Western scientist's world view is nicely highlighted in the preface to *The Teachings of Don Juan* by Castaneda:¹

"Anthropology has taught us that the world is differently defined in different places. . . . The very metaphysical presuppositions differ: space does not conform to Euclidean geometry, time does not form a continuous unidirectional flow, causation does not conform to Aristotelian logic, man is not differentiated from non-man or life from death, as in our world. . . . The central importance of entering into worlds other than our own . . . lies in the fact that the experience leads us to understand that our own world is also a cultural construct."

Parapsychology must also be faulted for failing to take advantage of the rich possibilities for understanding paranormal events that could be provided by cross-cultural research. It has been estimated that 4,000-5,000 human societies existed during the last century. Imagine the diversity which that represents in terms of genetic patterns, diet, climate, child-rearing practices, forms of intrafamilial organization, styles of social interaction, emphases upon instinctual drives, uses of different hallucinogenic drugs, and types of trance states!

This listing is a highly attenuated one and dozens of other possible relevant dimensions could be added easily. At the present time, we are almost totally unfamiliar with what the contribution of any of these variables might be to the manifestation or enhancement of psychic phenomena. It would be impossible to find such heterogeneous sampling strata within our own culture, but if we do not quickly avail ourselves of this unparalleled opportunity, we may well be in the frustrating position that a modern-day ornithologist would find himself in if he wished to make a movie portraying the flying behavior of the passenger pigeon.

Since many of the members of this conference are anthropologists, I will not attempt to review what the contributions of anthropologists have been toward understanding parapsychology. My impression is that the contribution has been extremely minimal. The contribution of parapsychologists to better understanding anthropological material has also been very sparse. Although the urgency and importance of psi-oriented anthropological research is often acknowledged by parapsychologists while discussing the issue from the comfort of an armchair, they have, with rare exceptions, failed to undertake any efforts to investigate psi in a field situation.

There have been only three studies reported to date in which a quantitative approach has been used to evaluate the psychic abilities of non-Western groups. Foster (1943) tested a group of fifty pupils in an Indian school in Manitoba with ESP cards and obtained significant above-chance results.² In a brief report of only a few paragraphs, Pope (1953) mentioned that a headmaster in New Guinea tested nine adults and six native teachers with ESP cards and found an insignificant deviation above chance.³ A book by Ronald Rose (1956) contained information about the card testing he carried out with Australian Aborigines, Maori subjects from New Zealand, and natives from Samoa.⁴ He obtained highly significant above-chance results with the fifty Australian natives and with the Maoris but only chance results with the tests administered in Samoa. Thus, to date, the only quantitative evidence obtained for ESP in non-Western societies consists of the studies by Foster and by Rose, who found significant above-chance scoring with conventional ESP cards that were individually administered to each subject.

I would now like to describe my own testing program which has been carried out with Cuna Indian adolescents from the San Blas Islands which lie off the eastern coast of Panama. The testing design was a different one from that of Foster or Rose, in that a group testing format was employed and the evidence for ESP is not based upon an overall positive deviation.

There are approximately 360 islands in the San Blas group and about 18,000 Cuna Indians live on the forty islands which are inhabited. The Cunas have begun to accept some degree of Panamanian authority during recent decades but remain fairly independent and steeped in traditional beliefs. As a result of close inbreeding, they have acquired a distinct somatotype consisting of powerful shoulders and chests with spindly appearing legs. They are among the world's shortest people and have attained the world's highest percentage of albinos.

The mythology of these people is too complex to attempt any simple summary. The most important deity is the Earth Mother. A great deal of magic and ritual is practiced, and belief in evil spirits and ghosts is widespread. For more detailed accounts of Cuna culture and magical practices, the works by Nördenskiöld (1938),⁵ Stout (1947), and Keeler (1960)⁶ should be consulted.

I had made an earlier visit to the islands in 1964 and carried out some informal GESP tests with conventional ESP cards and obtained encouraging results. In order to make the testing materials more relevant for this culture, I subsequently prepared colored pictures the size of playing cards, depicting five objects that would be familiar to Cunas, and I pasted these on individual pieces of cardboard. The five objects were: a jaguar in a jungle setting; an underwater view of a shark; a conch shell on sand; a large canoe with a sail; and a propeller airplane in the sky. Fifteen duplicates of each of these five stimuli were prepared, making a deck of 75 cards. These cards were used for the later testing sessions which were carried out in 1968, 1969, 1970, 1971, and 1972.

The subjects were students attending the Oller Junior High School on Nargana Island. Their ages ranged from eleven to eighteen years. This school is the highest-level school established by the Panamanian government and served, because of its central location, all the San Blas Islands. These adolescents spoke Indian dialect in their homes and in their Nargana residences, although classroom instruction was carried out in Spanish. Classroom size varied from about twenty to thirty pupils; the school as a whole contained slightly over 200 pupils. A school setting was utilized because it allowed a large number of subjects to be tested in a short period of time and because the subjects would be able to comprehend and follow the testing instructions.

The testing procedure involved a group GESP task. Each pupil was supplied with a strip of paper consisting of two CALL-CARD columns cut from a standard ESP record sheet. Stapled to this strip was an identical testing form with a piece of carbon paper placed in between. As the testing proceeded, the student wrote down his guesses for the target cards in the CALL column. Two runs of 25 trials apiece were completed at each testing session. When all fifty trials were finished, the student tore off the top strip and wrote some identifying information on the back. This consisted of his name, age, and sex. After these strips were collected, the target order was read to the pupils, who recorded it in the CARD column on their duplicate copy in order to provide them with the feedback concerning their performance. For official scoring purposes, only the original copies in the experimenter's possession were used.

I served as agent for all testing sessions. A session would begin with an explanation of the task in Spanish to the students. This explanation was given by one of the two English-speaking teachers or by Mac Chapin. After all the questions by the students were answered, I stationed myself outside the classroom while a testing assistant sat at a desk next to me. The deck of 75 cards was shuffled face down and the top 25 cards were removed to make up the first target deck. As I looked at each card for a period of about twenty seconds, I would call its number aloud in Spanish so that the students could coordinate their calls with the target order. After finishing with each card, it would be placed face down on the desk and the accumulating pile would be kept in place by the testing assistant until all 25 cards had been placed on the stack. The stack was then turned over and the target order was recorded under the joint scrutiny of the testing assistant and myself. The 25 cards were returned to the large deck and reshuffled for a few minutes. As before, the top 25 cards were removed to make up the target order for the second run. The procedure for completing the second run was identical for that described for the first run.

After the target for both of the runs had been recorded, I entered the classroom and instructed the students to remove their top testing strip and to write their name, age, and sex on the back of this form. These original sheets were collected and placed in a manila envelope before the target order was slowly read aloud so that the students could informally check the number of hits they had obtained by referring to the carbon copies in their possession. During the remainder of the classroom period, students were requested to write out their most recent dream on a special form provided to them. Two or three classrooms were generally tested per day and it usually required about three days to complete the testing program for the entire school.

The attitude of the students toward the testing seemed to be a blend of

humor and perplexity. There was usually some laughter after the procedure was explained, and there was considerable banter back and forth between the students as they commented upon the unusual request made by the visiting American. Sometimes the boys' responses were quite boisterous; the situation seemed to offer them an opportunity for a bit of attention-getting in front of their classmates. Although a few individuals would persist in the noisiness during the testing session, the overall level of cooperation was good.

A copy of the target order and the students' original record forms were stored in separate envelopes so that there was one envelope for each classroom tested. The records were scored by a laboratory assistant after my return to Charlottesville. Approximately five percent of the ESP records had to be discarded because it was apparent that the instructions had not been followed. Bases for exclusion included such errors as failure to include the proper number of trials or using scoring symbols that had not been part of the instructions. The subjects' method of recording their guesses was to use the initial letter of the object portrayed so that the letter "T" was used for "tigre" (jaguar), the letter "B" for "barco" (canoe) and so on.

The overall test results for the five years of testing is shown in Table 1:

TABLE 1. OVERALL ESP RESULTS

GROUP	GIRLS	BOYS	TOTAL
N Subjects	96	365	461
N Runs	362	1258	1620
Deviation	+67	-73	-6

As can be seen, a total of 96 girls and 365 boys had been tested. The 461 subjects completed a total of 1,620 runs which yielded an overall negative deviation of six hits below chance expectation. It will be noted that the girls obtained 67 hits above chance expectation while the boys produced a negative deviation of 73 hits.

Due to recent criticism by Stanford and Palmer (1973) concerning the use of the Critical Ratio for evaluating process-oriented research in parapsychology,⁷ I have evaluated the difference in scoring level between the girls and boys by means of the *t* test. Since some subjects had only participated in a single testing session, while others had participated in two, three, or more testing sessions, the decision was made to use only the score obtained by each subject during their first testing session for comparison purposes. This analysis is shown in Table 2.

TABLE 2. ESP RESULTS FROM FIRST TESTING SESSION ONLY

GROUP	GIRLS	BOYS	TOTAL
N Subjects	96	365	461
N Runs	192	730	922
Deviation	+ 90	-38	+ 52
Session Ave.	10.94	9.90	10.11
$t_{G \text{ vs } B} = 3.10 \quad p < .01$			

Since only one testing session per subject was used, the number of runs per subject was two. Inspection of Table 2 indicates that the girls obtained a deviation of 90 hits above chance expectation while the boys obtained 38 less hits than would have been expected by chance. This difference in average scoring level yielded a t value of 3.10 which is significant beyond the .01 level. The girls' deviation above chance was independently significant beyond the .01 level ($t = 3.04$) while the scores of the boys was not significantly different from chance.

Since it had been noted that the girls' deviation had increased by limiting the consideration of scores to only those obtained during the first testing session, a comparison was made between the scores which had been obtained in just the first session with scores obtained in later testing sessions. If more than one later testing session score was available, the average was computed in order to provide a single score. Results obtained from this comparison are shown in Table 3.

TABLE 3. COMPARISONS OF ESP SCORES FROM FIRST TESTING SESSION WITH AVERAGE OF ESP SCORES FROM LATER TESTING SESSIONS

	GIRLS		BOYS		TOTAL	
	First	Ave. Later	First	Ave. Later	First	Ave. Later
N	56	56	174	174	230	230
Session Ave.	11.18	9.73	9.94	9.90	10.24	9.86
t	3.14 df 55 $p < .01$		NS		NS	
r	+.298 $p < .05$		+.103 $p \text{ NS}$		+.150 $p < .05$	

A total of 56 girls had been tested on more than one occasion. The matched *t* test was used to compare the two sets of scores for each individual. The resulting *t* value of 3.14 was significant beyond the .01 level for the girls but was not significant for the boys or the combined scores. The scores for the 174 boys were almost identical for their first testing session and for subsequent testing sessions. The girls, however, did much better if the analyses were confined to their first testing session, since they scored essentially at chance when they were tested upon a subsequent occasion. The length of time elapsing between testing sessions did not seem to be an important factor for the girls. The scores shown in Table 3 represented at least a one-year interval between testing for 48 of the girls, but the level of decline was approximately the same for those girls who had been tested twice within the same year. In order to obtain an indication of whether individual subjects were performing at a similar level of success between testing sessions, a Pearson correlation coefficient was computed. As shown in Table 3, the correlation coefficient was positive for both the girls and the boys. The magnitude of the *r* was significant only in the case of the girls although it was also significant for the combined results. This significant positive correlation indicates that subjects tended to maintain their same relative standing within the group even though the scores for the girls were lower on the occasion of the testing session. Thus a girl who was near the top end of the distribution of ESP scores on the first occasion was also more likely to be in the top end of the distribution of scores on the occasion of the second testing.

I had noted the sexual differences in scoring level after the first few years and began to wonder what might account for their occurrence. Observation of their classroom behavior suggested that the boys viewed the testing situation in a more lighthearted manner than the girls and did not apply themselves with as much attention and effort as the girls. An attempt to follow up this speculation was made by soliciting teachers' ratings regarding the degree of cooperativeness they habitually displayed in the classroom. One of the teachers, Padre Davis, was a Catholic priest who taught English and science courses. The second teacher who provided ratings was Sammy Morris, who had previously taught English courses and who was now in charge of the physical education program. Both these teachers had spent several years in the United States and were very fluent in English. I asked each of them to go over their class roll books and to rate each student on a three-point basis. A rating of one was intended to indicate a student who was extremely conscientious, courteous, who completed homework assignments on time and who presented no behavior problems in the classroom. A rating of two was to be assigned to those pupils who did not display the model behavior of the level one students but who would not be considered any disciplinary problem. The rating of three was to be assigned only to those

students who created problems for the teacher and who did not seem to take their studies very seriously or who caused problems because of their lack of cooperation. Both teachers had an exceedingly difficult time in comprehending the nature of this rating task and the notion of making such an evaluation seemed quite alien to them. Since they are both native Cunas, this might represent a reflection of the traditional mores, which is to treat everyone alike and not to discriminate in any way within the group. These cooperation ratings were obtained in both 1971 and 1972. The relationship between the ESP scoring levels and the cooperation ratings are shown in Table 4.

TABLE 4. ESP LEVELS IN RELATIONSHIP TO TEACHERS' RATINGS OF CO-OPERATIVENESS

Rating	GIRLS		BOYS	
	N	\bar{x}	N	\bar{x}
1-1	16	7.94	29	10.31
2-1	18	10.89	40	9.88
2-2	6	10.83	49	9.94
2-3	—	—	14	10.43
3-1	—	—	5	10.80
3-3	3	8.33	11	10.00
1	7	10.43	24	9.42
2	8	10.50	19	10.16
3	1	12.00	9	8.78
$t_{1-1 \text{ vs } 2-1;2-2} = 2.38 \text{ } p < .05$				

Most of the pupils were rated by both teachers although there were a few who were only rated by a single teacher. Those on whom only a single rating was available are shown in the bottom part of Table 4 while the remainder represent those subjects with ratings by both teachers. The analysis produced some surprises. The sixteen girls who had obtained the top level of cooperation ratings by both teachers obtained an average session score of 7.94 which was below chance to a significant degree ($t = 2.77$; $p = .02$). If the girls obtained a rating of two by either one or both teachers their scores were somewhat above chance and the difference in scoring level between those girls with a rating of one by both teachers and those receiving a two by at

least one teacher was significantly different as is shown in the *t* value at the bottom of the table. A different pattern emerged for the boys. The 29 boys who had received a rating of one by both teachers obtained a score which was somewhat above chance while those who had a score of one and two or who had received a score of two by both teachers scored very slightly below chance. Thus the scoring patterns were in opposite directions for the girls and boys. For those boys who had received a rating of three by one teacher which was not matched by the other teacher, the scoring level was again somewhat above chance. For both boys and girls scores of threes from both teachers yielded ESP scores which were close to the chance level.

It is not easy to attach any meaning to the scoring patterns of Table 4. A tentative suggestion which emerged was that girls scored in a very negative direction if they displayed behavior in both the traditional academic subjects as well as on the playground which would be considered overly compliant or rigidly conformist. It seems as if the girls needed a little more spontaneity or flexibility in order to score at above-chance levels. One might venture the guess that the girls receiving a rating of one by both teachers were those who would be considered highly repressed and non-expressive of feelings and held themselves in strict control in all types of social situations. It is more difficult to make any such guesses as to what might account for the pattern of the boys' scores. Higher scores are associated both with the pattern of the over-control which might be represented by the pair of one ratings, but higher scoring is also associated with those combinations of scores reflecting the more obvious acting-out behavior represented by a rating of three.

Dreams were also obtained from subjects during each of the five years. A sheet with instructions printed in Spanish requesting the subject to report his most recent dream and to describe the events that took place in the dream and how the dreamer felt in the dream, etc., was employed. These dreams were translated by Mac Chapin, who spent three years among the Cunas as a Peace Corps volunteer and who is currently a doctoral candidate in anthropology. Mr. Chapin possesses an excellent grasp of the idioms used by the Cunas and is extremely familiar with their culture and patterns of thinking. He accompanied me during the 1970, 1971, and 1972 expeditions and explained the dream form to the students on several occasions.

Following up on the lead obtained from the teachers' ratings on cooperation, the dreams were examined with regard to whether any relationship might exist between ESP scores and the amount of aggression expressed in the dream. A score for aggression was tabulated if there was an instance of either physical or verbal aggression recorded in the dream. All of the dream scoring was carried out by Ms. Jeanne Cox who works as an assistant at my Sleep and Dream Laboratory. It was found that those dreams possessing an

instance of aggression were associated with higher ESP scores than those dreams lacking any aggressive incidents. This pattern was much more marked for the girls than for the boys. Since some previous research of mine in 1971 had indicated that animals in dreams also frequently represented aggressive or other unacceptable impulses, an examination was made as to how ESP scores would vary in relationship to the presence of animal figures. It was found that the presence of animals was associated with above-chance scoring, although they were not a frequently appearing category. Encouraged by these results, it was next decided to explore the role of sexuality in dreams. Dreams containing an instance of overt sexual activity such as kissing or intercourse were associated with above-chance ESP scores, whereas dreams scores in which a mention of a boyfriend or girlfriend occurred were associated with below-chance ESP scores. An attempt to interpret why these various scores were associated with ESP will be made at a later point in the paper and discussion will be withheld until I have described some of the other dream scores that were explored.

In scanning through the dreams, I noted that family members and relatives appeared with some regularity. A preliminary tabulation indicated that above-chance ESP scores were associated with the presence of either a family member or a relative. A more careful tabulation of the types of family members revealed that the above-chance scoring was only associated when either a single parent or both parents were referred to in the dream and below-chance scoring was found when siblings were mentioned or if a reference was only made to "my family." Analysis of the relative category indicated that below-chance scoring was associated with the presence of either aunts or grandmothers, while above-chance scoring was associated with any other type of relative or with the mention of an *acudiente*. An *acudiente* is a "summer parent" who acts as host for the student and provides lodging for him during the time that he is enrolled in school at Nargana Island.

Previously, both Johnson (1968)⁸ and Honorton (1972)⁹ had reported that ESP scores were higher for those subjects who reported a greater frequency of dream recall. Since only a single dream was available, it was decided to use dream length as a rough equivalent of the extent of dream recall. The translated dreams were available in typewritten form and those dreams containing more than five typewritten lines were classified as long dreams. When the dreams were divided in this fashion, it was found that long dreams were associated with above-chance scores, while short dreams were associated with below-chance scores, particularly for boys. Below-chance scores were also associated with those cases where fragments of several dreams were reported.

Rather than attempt to separately evaluate each of these dream elements, the decision was made to combine the various elements together so that a single dream score would be produced. The rating scheme used for dreams is shown in Table 5. The lowest dream score which could be obtained was a zero and the maximum score that could be obtained was a value of ten.

TABLE 5. DREAM RATING SYSTEM

CATEGORY	SUB-CATEGORY	POINTS
Length	Short (5 lines or less)	0
	Long (more than 5 lines)	1
Family	Siblings or unspecified family	0
	No reference to family	1
	Parents (single or joint)	2
Relative	Aunt, grandmother or unspecified	0
	No reference to relative	1
	Uncle, grandfather, cousin	2
Acudiente	No reference	0
	Summer parents	1
Animal	No reference	0
	Any type animal	1
Sexuality	Sexual interest (mention of boyfriend or girlfriend only)	0
	No reference to sexual interest or overt physical activity	1
	Overt physical activity	2
Aggression	No reference to aggression	0
	Physical or verbal aggression	2

This rating scheme is quite easy to apply to the dreams and the scores do not require any degree of clinical skill nor expert judgment to utilize. The dream is either over or under five lines long; siblings, parents, and specific relatives are mentioned or not mentioned; animals are either present or

TABLE 6. MEAN ESP LEVELS FOR GIRLS AND BOYS
IN RELATIONSHIP TO DREAM CONTENT SCORES

DREAM CONTENT SCORE	SEX			N	AVE.				
	G	B	T						
1	G	B	T	1	—	1	10.00	—	10.00
2	G	B	T	10	25	35	8.40	9.08	8.89
3	G	B	T	26	73	99	9.46	9.29	9.33
4	G	B	T	22	75	97	10.59	10.09	10.21
5	G	B	T	13	63	76	12.31	10.14	10.51
6	G	B	T	14	45	59	12.71	10.44	10.98
7	G	B	T	4	21	25	14.50	10.43	11.08
8	G	B	T	3	11	14	11.00	11.36	11.29
9	G	B	T	—	2	2	—	11.50	11.50

absent. It is only in the last two categories of sexuality and aggression that the criteria are not completely explicit, but even here it was found that there were very few cases where the scoring was not immediately apparent. All scoring was, of course, carried out without the scorer having any knowledge of the ESP score for the dream being rated.

Table 6 shows the relationship between the ESP scores and the composite dream score.

Since some subjects had been tested on more than one occasion, the results were limited to the first testing session in which both an ESP score and a dream score were available. As Table 6 indicates, there is a steady increase in the average ESP score as the combined dream score increases. Examination of the girls' score revealed that the results are not stable at the extreme end since there was only one subject with a dream score of one, and three subjects with a dream score of eight, but at all of the intermediate levels there is a step-wise increase in the ESP scores as the magnitude of the dream score increases. The same pattern appears for the boys and except for a difference of one-hundredth of a point appearing in the ESP scores associated with the dream scores of seven, there is a perfect step-wise increase in ESP scores for the boys as the magnitude of the dream content score increases. The same pattern occurs for the combined score of the two sexes and beginning with the dream content score of two, the same steady step-wise progression of the increasing ESP scores is demonstrated.

Table 7 was constructed in order to show the extremely consistent results that were obtained in each of the five years when the dream scores are employed.

Subjects were assigned to one of three dream-score groups. Those with high dream-scores (9-5) show high ESP scores, those with dream scores of 4 show ESP scores essentially at the chance level, while those with low dream-scores (3-1) show low ESP scores. For each one of the five year-levels the girls with high dream-scores have ESP scores greater than that obtained by subjects with lower dream-scores, and for each of the five years the boys with high dream-scores obtained higher ESP scores than the boys with low dream-scores. As would be expected, the same pattern occurs for the results of the two sexes combined. For 1968, 1970, and 1972 the results of the combined group show a significant difference in the scoring level between the high and the low dream-score groups. If the results for all five years are combined, the results for the girls are independently significant and those of the boys are also independently significant. As can be seen, the difference in average scoring level is more accentuated in the case of the girls.

These results using the dream scores could be interpreted in a variety of ways. My speculation is that two different components are represented in

TABLE 7. MEAN ESP LEVELS OF GIRLS AND BOYS WITH HIGH AND LOW DREAM CONTENT SCORES ARRANGED ACCORDING TO YEAR OF TESTING

YEAR	Dream Scores 9-5		Dream Score 4		Dream Scores 1-3		9-5 vs 1-3	
	N	Ave.	N	Ave.	N	Ave.	t	p
G	8	13.88	8	11.63	10	10.10		
1968 B	47	10.79	25	9.24	43	9.30		
T	55	11.24	33	9.82	53	9.45	2.89	<.01
G	5	12.00	—	—	5	9.20		
1969 B	11	10.36	8	9.38	13	9.77		
T	16	10.88	8	9.38	18	9.61	1.65	
G	8	13.75	4	10.00	10	9.50		
1970 B	20	10.00	10	9.80	15	8.73		
T	28	11.07	14	9.86	25	9.04	2.35	<.05
G	9	11.44	2	10.00	2	10.50		
1971 B	25	10.72	11	11.36	10	10.30		
T	34	10.91	13	11.15	12	10.33	.59	
G	4	11.00	8	10.00	10	7.70		
1972 B	39	9.92	21	10.86	17	8.47		
T	43	10.02	29	10.62	27	8.19	2.98	<.01
G	34	12.59	22	10.59	37	9.19	4.90	<.001
Totals B	142	10.39	75	10.09	98	9.24	3.10	<.01
T	176	10.82	97	10.21	135	9.22	4.77	<.001

the dream measures. The first component is one consisting of the aggression, animal, sexuality and dream length scores. Those reports which contained the preceding elements seem to have more of a "dreamlike" quality to them and incidents would be described that one would be unlikely to encounter in everyday waking situations. Dreams in which the dreamer was attacked by crocodiles or sharks, dreams in which he was being pursued by some villainous oppressor, or dreams in which intercourse with some desirable but not ordinarily available partner, portrayed situations in which it might be said that a greater degree of primary process thinking

was present and in which censorship was minimal. The zero weight given to mention of boyfriends or girlfriends seemed relevant because reports in which such references were made seemed to be generally simple dreams which might consist of a description such as: "Last night I dreamed about my girlfriend and I went over to her house and talked to her and then we walked around town and saw many of our friends." Such reports seem to have more of a quality of a daydream to them or of a waking fantasy rather than any dramatic nocturnal production. Dream length seemed to be a variable that was strongly correlated with the amount of bizarreness or intensity and it was usually the longer reports which contained detailed descriptions of the plots and counterplots which gave the report a dream-like quality. Short reports, on the other hand, often consisted of straightforward narrative accounts of usual activities, such as going to the river to bathe, walking about the island, or gathering coconuts or mangoes on the mainland. This first component might be considered then to represent the dreamers' ability to accept their personal impulse life and to feel comfortable with the imagery that would accompany the expression of these impulses. The defense mechanisms of denial and repression would be expected to be more prominent in dreams not containing any of the elements associated with this first component. There have been other reports in the literature (Johnson and Kanthamani, 1967) which have indicated that high-defensive subjects produce psi-missing effects while low-defensive subjects produce psi-hitting.¹⁰

The second component consists of the family and relatives category. There is a strong emphasis in the Cuna culture upon the importance of family loyalty and harmony. Children are never physically beaten and there is a great deal of affection and nurturing given to the young child. The child is frequently not weaned until about four years old, is not subjected to any form of toilet-training until well after mastery of speech is attained, children are sung to sleep while they are rocked in a hammock, and they are constantly carried about on the hip of the mother or some other female relative. As a result, Cuna personality can be characterized as warm, friendly, and cooperative. The appearance of parental figures in the dreams might therefore represent that the dreamer has accepted the traditional Cuna values of interpersonal harmony and affiliation and will extend an attitude of cooperation and attention when he is requested to participate in the ESP task. The same reasoning would explain why the presence of other relatives would signify this same spirit of helpfulness on the part of the dreamer. My speculation as to why the presence of siblings or aunts or grandmothers are associated with psi-missing would be because some degree of sibling rivalry might be indicated by having dreams in which siblings are

present and such an attitude would not be a conducive one to the ESP task which is being posed; a task in which the subject is asked to work cooperatively with the agent in a mutual undertaking. The social structure of the Cunas is organized along matrilineal lines and when a man marries he is required to move into the home of his wife and offer allegiance to her parents and family. In such an arrangement, grandmothers and aunts often achieve positions of considerable authority and frequently take on the role of disciplinarians within the family. Thus, the presence of grandmothers or aunts may represent a somewhat disliked authority figure for the dreamer and if the dreamer has difficulty relating to such figures it would be expected that he would not succeed very well in relating to the agent, who might be viewed as occupying a similar role.

It is my feeling that the potential value of these dreams has only been tapped in a superficial way and that it would be possible to find many other relationships between certain dream scores and the level of ESP scoring. In its present format, the dream scoring system does a very creditable job in differentiating between the average ESP scoring level, but it seems quite probable that some relationships might exist between present dream scores and variance patterns within the ESP scores. For example, I made a quick tabulation of the presence of rivers in the dream imagery of the girls and examined what relationship it held in relationship to the ESP scores. I found that the presence of rivers was associated with either very high ESP scores or very low ESP scores. If a 2×2 Chi square table is constructed in which the presence or absence of river imagery is tabulated along one axis and the other axis consists of session scores of nine, ten, and eleven versus all other ESP scores the resulting χ^2 value of 4.02 is significant at the .05 level. This finding makes considerable sense to me because the river is a place about which ambivalent feelings are held by Cunas. On the positive side, it represents a source of their drinking water and a place where many pleasant social interactions occur while swimming and washing clothes, but it is also the location where cemeteries and their attendant ghosts are situated and there are many stories about crocodiles and jaguars appearing from out of the jungle at the river's edge. I have shown in an earlier study that a pattern of either extremely high or extremely low ESP scores is associated with ambivalent and conflictual attitudes toward the occurrence of ESP when such attitudes have been measured on a special sentence completion test.¹¹ Thus, if ambivalent attitudes exist toward the concept of rivers, it is not surprising that such ambivalence may be reflected in extremely high or extremely low scores toward ESP.

The preceding material documents that the attitudes of the percipients is an extremely important variable in accounting for the resulting level of ESP

scoring. The attitude of the agent is also an important variable although it is much more difficult to evaluate what facilitating or inhibitory role he might play. During the last few years of testing I have made some notes about my moods and the conditions surrounding the testing sessions when each class was tested. These notes were written out on the manila envelopes before the target order was read to the class. For example, in 1969 I had observed that whenever I reported that my concentration was extremely intense and that my attention was exclusively focused upon the target stimulus, very low ESP scores resulted. For the 1971 runs on which I had recorded this mood of intense concentration, a deviation of 46 hits below chance expectation was produced. There was a total of 83 runs in which I had noted that I was distracted to a minor degree, usually because of some nearby noise which bothered me, and the resulting level of ESP scoring produced 44 hits above chance expectation. The difference in scoring level between these two states of mind was significant beyond the .001 level. These findings suggest that better results are obtained when I, as an agent, do not become too intensely preoccupied with the target stimulus and when some components of my attention are shifted toward awareness of peripheral activities. The state of relaxed attentiveness was much more effective than making a fierce effort to fuse with a card in trying to force a vivid image of the stimulus into the forefront of my consciousness.

The results I have obtained with Cuna subjects seem to offer solid evidence that significant ESP results can be produced when non-Western subjects are tested. This study is the first report in the literature where an ESP interpretation is not based simply upon an overall positive deviation for the group, as was true in the Foster and Rose studies. The sceptic could easily claim that their results might have been attributed to sensory cues or carelessness or to unconsciously motivated mistakes in recording results. Such criticisms are not pertinent to my study. The overall deviation for the group was almost precisely at the chance level, and the recording of their guesses was done by the subjects themselves. Scoring of the ESP sheets was done by a laboratory assistant who was not involved with the test administration, the scoring was independently checked by still another assistant and the original ESP sheets are still available for further checking by still other persons.

The direct evidence for ESP consists of a significant difference in scoring level between the girls and the boys, significant decline in scoring level between successive testing for the girls, and a significant correlation between the scores obtained by the girls from one year's testing to a later year's testing.

Evidence for the role of personality factors upon ESP was demonstrated by the significant differences in ESP scoring between girls with different behavioral ratings by teachers and also by the extremely consistent year-

to-year patterning of ESP results when differentiations were made by means of dream scores. The role of the agent was also shown to bear a significant relationship to ESP scoring.

I can think of no alternative hypothesis, except chance and fraud, to account for the present results, because they are based upon inter-subject patternings within a classroom. Why would only members of a certain sex, tested only at certain occasions, possessing certain behavioral pattern ratings, and reporting certain types of dreams be the subjects to more correctly perceive the hidden target card that I was concentrating upon, while other classmates sitting nearby, and who had different personality characteristics, etc., fail to perceive exactly the same target stimulus?

These results also point out that we must obviously look closely at the motivational structure of the subjects and it would be inappropriate to assume that ESP will be demonstrated simply because the subject happens to be a member of a non-Western social group. Psi doesn't happen in a wholesale fashion for such groups. Each group is a collection of individuals and each individual will respond to the task in terms that are personally meaningful for him and in a manner consistent with his overall dynamic makeup.

REFERENCES

1. CASTANEDA, C., *The Teachings of Don Juan* (Berkeley, Calif.: University of California Press, 1968).
2. FOSTER, A. A., "ESP Tests with American Indian Children," *Journal of Parapsychology*, 7 (1943): 94-103.
3. POPE, D. H., "ESP Tests with Primitive People," *Parapsychology Bulletin*, No. 30 (May, 1953): 1-3.
4. ROSE, R., *Living Magic: The Realities Underlying the Psychical Practices and Beliefs of Australian Aborigines* (New York: Rand McNally, 1956).
5. NORDENSKIOLD, E., *An Historical and Ethnological Survey of the Cuna Indians* (Göteborg: Museum of Ethnography, 1938).
6. KEELER, C., *Secrets of the Cuna Earthmother* (New York: Exposition Press, 1960).
7. STANFORD, R. AND PALMER, J., "Some Statistical Considerations Concerning Process-Oriented Research in Parapsychology," *Journal of the American Society for Psychical Research*, 66 (1972): 166-179.
8. JOHNSON, M., "Relationship between Dream Recall and Scoring Direction," *Journal of Parapsychology*, 32 (1968): 56-57 (Abstract).
9. HONORTON, C., "Reported Frequency of Dream Recall and ESP," *Journal of the American Society for Psychical Research*, 66 (1972): 369-374.
10. JOHNSON, M. AND KANTHAMANI, B. K., "The Defense Mechanism Test as a Predictor of ESP Direction," *Journal of Parapsychology*, 31 (1967): 99-110.
11. VAN DE CASTLE, R., "Differential Patterns of ESP Scoring as a Function of Differential Attitudes toward ESP," *Journal of the American Society for Psychical Research*, 51 (1957): 43-61.

DISCUSSION

HALIFAX-GROF: I find this extraordinarily fascinating, and I do have a lot of questions, but the first one is: Do you think that the sex of the experimenter could in some way affect the performance of the boys?

VAN DE CASTLE: It could very well. Since I was the same agent throughout all five years and we never manipulated that variable; I don't know. There could have been some sort of competition and rivalry toward me by the boys, whereas with the adolescent girls, it may have been that this created some sort of a situation where they might have wanted to relate to me more favorably; I don't know. It would be very intriguing to see what would happen with a female experimenter.

HALIFAX-GROF: It would be very interesting in view of the matrilineal focus in the culture.

LEWIS: I have an understanding that one possible conclusion one might derive from your paper is of a linkage between frustration or repression and psychic ability, or have I misunderstood you?

VAN DE CASTLE: I think I would like to have it slant the other way. My speculation would be that the person who was more comfortable with his (their) impulse life, who can tolerate primary process thinking, who doesn't engage in as much censorship, who is open to inner awareness in a sense, is the person who is going to do better at the ESP test. It's the person with the heavy denial and repressive mechanisms—the uptight, keeping-a-lid-on type of person who will not do well. There's a lot of evidence in the parapsychological literature for this type of interpretation on the basis of various objective and projective tests that have been administered.

LEWIS: I thought that your data showed a link-up between high dream frequency and dream content and psychic ability.

VAN DE CASTLE: Yes, so that the higher ESP scores are obtained from the people who can acknowledge the aggression and the sexuality in their dreams.

LEWIS: That is the interpretation then, isn't it?

VAN DE CASTLE: That is the interpretation that seems to make sense to me.

LEWIS: Would it also be possible to interpret it in the opposite way? I mean, to see the dreams as an expression of frustration or repression?

VAN DE CASTLE: Yes. And here one has to clarify what their stance is on

the content of dreams. My stance is very decidedly in favor of the manifest content of the dream and the dream as mirroring, with some slight distortions, waking reality. I don't subscribe to the Freudian notion of the hidden latent content and that the manifest content really represents an elaborate disguise created through the process of dream work and that the meaning of the dream has to be elusive or we wouldn't be allowed to have it pass through censorship. So I would stand in strong opposition to the traditional analytic approach.

DEVEREUX: It seems to me from what Ioan pointed out, that he is interpreting things his way and, I would say, my way too. There is a confirmation of what I said this morning regarding my central thesis: ESP as a substitute for sexual self-realization, which is exactly what Ioan brought out.

VAN DE CASTLE: I think sexuality plays a far more important role in the production of psi phenomena than we have ordinarily acknowledged. In the paper I gave several years ago at U.C.L.A., when I was describing my experiences as a dream subject at the Maimonides Laboratory where an agent tries to transmit an art print to a dreaming subject—they let me be free to choose any agent I desired, and I always chose the most attractive, physically appealing girl available. I would develop a lot of fantasies about her and when I was lying in bed I would fantasize, "Come here, here's a nice warm spot beside me; come right here, etc." and by entertaining this type of fantasy level, we were able to do extremely well.

HALIFAX-GROF: I have heard that sexual gratification can obviate psi phenomena.

VAN DE CASTLE: I deliberately refrained from that because I feel that something like a Zeigarnik Effect was operative. If I could have physically consummated the relationship, it would have taken away the immediate drive and desire, but, by keeping it at the fantasy level and continuing to desire, but without the closure, I feel the necessary tension is created; we're now psychically consummating the relationship rather than on the physical plane.

DEVEREUX: May this then be in terms of what I have written in my book *From Anxiety to Method* on the relationship of counter-transference in scientific research? May it not be that this is a new repressive mechanism?

VAN DE CASTLE: It's a repression, though, in the service of science.

LEWIS: Did you try collusion with the girl?

VAN DE CASTLE: No. We would go out for coffee, and talk before the experimental sessions. I would let her know that I did find her interesting and appealing, but it was clear that nothing physical was going to happen. If she found me interesting, it would hopefully set up the same type of Zeigarnik Effect on her part.

KREITLER: I still would warn against a causal interpretation of a correlation in the sense implied in your remark that sexuality produces involvement which produces ESP. Perhaps you may interpret the correlation as indicating that the sexual tension or the readiness to endure sexual tension sets energy free, which in turn strengthens ESP phenomena.

VAN DE CASTLE: I would not want to make sexuality the exclusive motivation. Obviously, it depends upon the individual. For me, ESP is a form of social relationship. Being shy ordinarily, this was my way of relating and the testing situation was able to satisfy my needs and dynamics. For someone economically motivated, it might be necessary to provide a financial reward. If a minister were involved, the task might be structured that a high ESP score meant that you had really received the spirit and you were one with God. Sexuality can be important, though it's not, I think, the exclusive domain for the energization of psi processes. One must know the individual and then tap into what motivational structure would be relevant for him to succeed in the testing situation.

KREITLER: We relate to the same point. We fully agree that it could be a motive; it could motivate his behavior, but can we treat a motive as a cause of a phenomenon? I am motivated to do this and that, for instance, to think it's true, but I don't think because of the motive. The motive doesn't enable me to think. It induces me to use my cognitive ability, and so I would not conclude from the correlation between sex dreams, etc., that sex in itself produces ESP. It may only promote it.

VAN DE CASTLE: I agree. As we heard this morning, sex can get to be a very complicated subject. Orgasms and spasms, that is, the difference between orgasms and spasms can become a very fine distinction. I was treating sex here as more like sex with a little "s"; sometimes I think it can be love with a capital "L"; a variety of interpersonal motives can be linked to ESP performance.

DEVEREUX: One last brief remark, if I may. The great mathematician Lagrange once remarked that nature does not care how great the analytical difficulties are with which it confronts its students. Sex *is* complicated.

PARAPSYCHOLOGICAL PRINCIPLES FROM ANTHROPOLOGICAL STUDIES

BOB BRIER

INTRODUCTION

As far back as recorded history goes, there is evidence of man's desire to accomplish feats beyond his physical capabilities. Various societies have devised techniques for finding objects, foretelling the future, assuring a good harvest and killing enemies. It is difficult to estimate how many such practices there were in ancient times, but there is no doubt that they were numerous.

Of these many ancient, magical practices only a few are still in use. It may be that a survival-of-the-fittest principle is at work in the selection of which practices survive and which do not. That is, those practices that are still in use might be those that produce the intended effect. Usually it is assumed that such practices are merely superstitious beliefs and could not be efficacious. Modern parapsychological experiments, however, yield results not unlike those attributed to these practices. If in fact there is something to the claims made for these practices, by an analysis of some ancient practices that have survived, we might be able to extract basic success principles which could then be tested in the laboratory. Further, if the survival-of-the-fittest hypothesis is true, success traits extracted by the analysis should be lacking in the ancient practices no longer used.

In this paper I will describe three ancient practices still in use and isolate characteristics common to all three that might account for their success. Then I will examine an ancient practice no longer in use to see if the principles found in the other three practices are present. In the last section of the paper I will make suggestions as to how similar analyses could be applied to modern anthropological studies.

SOME ANCIENT, MAGICAL PRACTICES STILL IN USE

I Ching

The origins of the *I Ching*, or *Book of Changes*, go back to a period before the Chinese had any historical awareness, so there is no written history of its

beginnings. It is known, however, that the practice did not arise at any one point in time, but evolved from primitive to more refined stages.

From earliest times, man wanted to know his fate before it happened. Consequently, various devices of divination and prophesy were invented. Almost all of these were designed to yield a simple yes or no answer to some important question. One of these devices was probably the unseen selection of one of two yarrow stalks. A stalk with a solid unbroken line signified yes, a broken line, no. Eventually, there was the desire to have information consisting of more than just yes or no answers.

Two yarrow stalks could be selected giving the four possibilities below:



Reading the bottom lines first, these could be interpreted as strongly positive, negative at first but then positive, etc. At a still later date a third line was added, yielding the eight trigrams which form the basis of the *I Ching*. (See Table 1.)

Each trigram is associated with different transitional states, which in addition to depicting things as they are, show tendencies for future development and give indications as to how one should act. Most fortune-telling devices predict the future, and then there is little one can do but wait. This projective aspect is what delineates the *I Ching* from many other fortune-telling devices and is the reason the Chinese consider it superior.

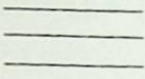
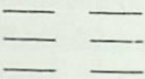
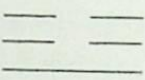
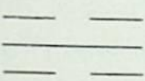
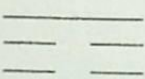
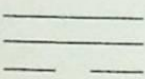
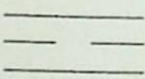
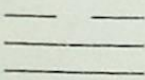
The meanings of the trigrams gave more refined predictions than the original yes-no devices, but for even more subtle predictions, the eight trigrams were combined with each other to give 64 hexagrams, each made up of two trigrams. These 64 figures are what constitute the present *I Ching*.

The way one traditionally consults the *I Ching* is to cast the yarrow stalks. Begin with 50 and place one aside. Randomly divide the remaining 49 into two heaps, left-hand and right-hand piles. Take one stalk from the right-hand pile and hold it in the left hand between the smallest and next-smallest fingers. Next, from the left-hand pile remove the stalks four at a time till four or fewer stalks remain. Place the remaining few between the ring and middle fingers of the left hand. Repeat the counting procedure with the right-hand pile and place the remainder between the next two fingers of the left hand. Because of the procedure and number of stalks with which the counting began, the number of stalks in the left hand must be either 5 or 9. If 9 remain, they have the numerical value of 2; if 5 remain, they have the value of 3.

Put aside the stalks in the left hand and repeat the procedure with the remaining stalks. Now the sum of the remaining stalks must be 8 or 4. Here,

TABLE 1

The Eight Trigrams

<i>Trigram</i>	<i>Name</i>	<i>Attribute</i>
	Ch'ien	the Creative
	K'un	the Receptive
	Chên	the Arousing
	K'an	the Abysmal
	Kên	Keeping Still
	Sun	the Gentle
	Li	the Clinging
	Tui	the Joyous

8 counts as 2, and 4 as 3. Carry out the same procedure for a third and last time. Again the remainder must be 8 or 4, yielding a value of 2 or 3. From this procedure one obtains three numbers, each either a 2 or 3. Consequently their total can range from 6 (if there are three 2s) to 9 (if there are three 3s). This total indicates the bottom line of a hexagram.

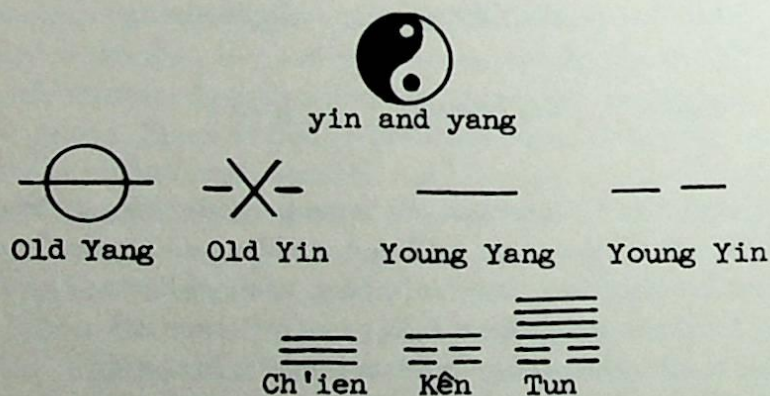
Here a word about the *yin* and *yang*. A basic concept in Chinese thought is that of the opposites. All states of the universe are combinations of opposites—light and dark, above and below, good and evil, etc. This has been symbolized by the familiar circle divided into two halves, a light and a dark, and each containing a bit of the other. The dark, *yin*, is considered negative; the light, *yang*, is positive.

If the total gotten by throwing the yarrow stalks is 9, this is called an "Old Yang." The word "old" indicates a "moving" line, highly suggestive

of change, so Old Yang means "positive, but may change to negative." This is represented by a solid line with a circle. The solid line depicts yang; the circle depicts change. If the total is 6, it is called an "Old Yin," meaning "negative, but may change to positive." This is represented by a broken line with an X. The broken line depicts yin; in this case the X depicts the change.

The only other possible totals are 7 and 8. A 7 is called a "Young Yang" and is indicated by an unbroken line. An 8 is called a "Young Yin," or broken line.

The entire procedure of casting stalks is repeated five additional times to obtain the other five lines of the hexagram. When the hexagram has been obtained, one must determine what it means. For the ancient Chinese who first consulted the oracle, there was not much help given towards doing this. Since each hexagram is composed of trigrams and each trigram has an image associated with it, it follows that each of the 64 hexagrams is the result of the marriage of two images. For example, when the trigram for Ch'ien, or Creative, is combined with Kên, or Keeping Still, the resultant hexagram is Tun, or Retreat. In the early stages of the *I Ching* it was left to the questioner to interpret what a particular hexagram indicated. Always, however, a specific question was asked; the interpretation involved seeing the relevance of the hexagram to that question.



At approximately 1000 BC, King Wên added to the text of the *I Ching* his "decisions," or "judgments." For each of the 64 hexagrams there is a brief, general passage revealing its significance. For example, for Tun, the judgment states:

Retreat. Success

In what is small, perserverance furthers.

An expository passage follows this. There are specific interpretations for moving lines. For example, for Tun, one learns that an Old Yin at the bottom of the hexagram means:

At the tail in retreat. This is dangerous.
One must not wish to undertake anything.

From the casting of the yarrow stalks to obtain a hexagram and from the reading of the hexagram, its judgment and commentary, one is supposed to be able to determine the course future events will take and act accordingly. It is clear that it is intended to be taken quite seriously. Confucius spent much time on the *I Ching* and is said to be the author of one of the commentaries on it. When important decisions concerning the future of China were to be made, it is not improbable that heads of state turned to the oracle for counsel.

The important question for parapsychologists is, If the *I Ching* has the desired effect—if it foretells the future—how? I will return to this question after I briefly outline two other practices which have survived and which also help in answering the question.

Astrology

Astrology is a practice that has become so commonplace today that there is little need to describe it in detail. Rather I will try to clearly state the claim of astrologers and some relevant points about the practice.

The basic claim is that there is a correlation between the positions of the heavenly bodies at the time of one's birth and one's personality, fortune, etc. By casting a horoscope—determining the relative positions of astronomical bodies at his birth—astrologers can determine one's personality characteristics, make predictions about the future and even retrodict events in the past. The practice of casting horoscopes is, of course, not new. The Chaldeans and Babylonians were particularly avid practitioners in ancient times. Until relatively recently the practice of astrology has been intertwined with the development of astronomy. Before the nineteenth century almost all the prominent astronomers were also astrologers.

There is, however, an important difference between astronomy and astrology. Astronomy is an exact science leaving little room for interpretation and dispute. Astrologers admit that their discipline is an art. Were it purely a science a computer would make the best astrologer, since it can assimilate and process more variables than a human. The computer, however, lacks the ability to interpret what the physical parameters mean. That is, the different heavenly bodies and signs of the zodiac all have different

significance for the individual in question. The astrologer must interpret what the positions mean. This ability is sometimes called "psychic enfoldment," and the degree to which this is developed determines an astrologer's competence. This ability to interpret will be discussed more thoroughly when we extract success principles.

Tarot

The Tarot is a practice closely allied to and, to a great extent, dependent upon astrology. The origin of the Tarot is not clear. It is known for certain that Tarot decks were in existence in the Middle Ages, but occultists claim that the Tarot is derived from the ancient Egyptian Book of Toth. (There is little evidence to support this claim.)

The deck is composed of 78 cards, which can be divided into three groups: 22 Major Arcana, 40 Minor Arcana and 16 Court Arcana. The Major Arcana cards are associated with ten heavenly bodies and twelve zodiacal signs. The 40 Minor Arcana represent the four elements: fire (scepters), water (cups), earth (swords) and air (coins), and there are ten of each suit. The Court Arcana represent people—Kings, Queens, Youths and Horsemen.

The deck is consulted somewhat the same way as the *I Ching*. A specific question is asked. The reader then decides which of various spreads will be used. (A spread is a specific geometric configuration in which a prespecified number of cards will be laid out.) While thinking about the question, he shuffles the cards, being certain to randomly invert some of them. He then spreads the cards facedown in the desired configuration and turns them over one at a time. As the cards are turned over the reader interprets the significance of each one. This interpretation is considered one of the "must" steps in a successful use of the Tarot. The Tarot reader is cautioned not to use standard lists which give the meaning of each card. Rather he is encouraged to use his own interpretive powers.

Here again we can ask, If the Tarot is efficacious, why? At this point it will be appropriate to discuss the three practices with a view towards extracting success principles.

I must first mention my own prejudice. I do not believe in magic. That is, I do not believe there is a power within yarrow stalks or Tarot cards which enables *them* to foretell the future. Further I do not believe in the occult—in laws governing our world which in principle cannot be discovered or revealed. So I will try to explain the possible success of these practices within a traditional, Western, rationalistic framework.

SUCCESS PRINCIPLES

Selection and Treatment of the Psychic

The three practices have some aspects in common. One that is immediately evident and perhaps most important is that power is attributed to inanimate objects. In the *I Ching* it is the yarrow stalks; in the Tarot, the cards; and in astrology, the heavenly bodies. The effect of this is to shift much of the responsibility for success or failure from the practitioner to the inanimate objects. This may produce in the practitioner a relaxed mental state favorable to his use of his psi ability to bring about the desired result.

This concern for the practitioner being in the proper frame of mind is not always subtle. In the various practices there is traditional advice to practitioners. With the *I Ching*, it is believed that not everyone is equally capable of consulting the oracle, and a certain amount of sensitivity is needed. The petitioner is told not to rationalize, not to question how it works, but to start from the premise *that* it works. In ESP too, the belief in the ability fosters the ability itself.

In astrology and the Tarot there is a similar situation. We are told that not all practitioners are equally adept, and the proper attitude is needed for these practices to succeed. However, the bulk of the responsibility is taken off the shoulders of the astrologer or reader and placed on the planets or cards. This removes the tension which parapsychologists try to avoid in laboratory settings.

Room for Psi to Work

The first principle seems to allow for selection of a psychic to act as practitioner and then puts him in a mental state favorable for psi performance. This would be futile if the practice were not designed so that the practitioner's ESP or PK could come into play.

There are many steps in the *I Ching* procedure where ESP could be a factor. The division of the yarrow stalks into two piles ultimately determines what a line will be: yin or yang. It is possible that, on an unconscious level, the person asking the question could use ESP to know which hexagram indicates the best course of action for his particular circumstance. Further he could use his ESP to pile the yarrow stalks so that the given hexagram will be the result. This may seem like a very complex task to complete by ESP, but there is experimental evidence that very complex tasks may be achieved by ESP test subjects.

Even if the above task were too formidable, there is another way that ESP could accomplish the intended goal. After the hexagram is determined, there is considerable room for interpreting the judgment and

commentary on the changing lines. Thus a clairvoyant could unconsciously foresee the future and interpret the hexagram in such a way as to bring about the best result.

If all this is brought about by ESP, the question will arise as to why the *I Ching* is necessary. Why can a person not precognize the future without casting yarrow stalks and interpreting hexagrams? The answer here is that the *I Ching* might be a brilliantly conceived psychological crutch. If a person were told to simply close his eyes and foresee his future, he would be overwhelmed by the difficulty and probably not succeed. If this same person were told that there is a magical book which will enable him to look into his future and will advise him how to act, and if at the same time, he were also allowed ample opportunities to unconsciously use his ESP, he would be less overwhelmed and have a greater chance of success. The fact that he believes in the oracle may be the factor that enables him to use his ESP. Perhaps this is how the *I Ching* actually works, if it works at all.

Although the yarrow stalks were the earliest method of consulting the oracle, there are others. One device which is considerably faster than the yarrow-stalk oracle is the coin oracle. Here, three ancient, bronze, Chinese coins are used. The coins are round with a square hole in the center. (The coin itself is symbolic of yin and yang, the opposites.) On one side there are four Chinese characters, on the other, two. The side with the four characters symbolizes yang, the other side, yin. The yang side has a value of 3, the yin, 2. By one toss of the three coins a line of the hexagram is determined (by adding the three values). Again a total of 9 is Old Yang and a total of 6 is Old Yin. This process is repeated five more times, one for each line of the hexagram. After the hexagram is determined the oracle is consulted in the same manner as with the yarrow stalks. Here again, there is room for ESP to enter into the interpretation of the hexagram, but there is also room for a different psychic power: psychokinesis (PK), or "mind over matter." It is possible that PK affects the fall of the coins and brings about the best hexagram for the question at hand.*

* This Western, mechanistic explanation as to how the *I Ching* works will not be satisfactory to the Eastern mind. The question of how the *I Ching* works has not, however, been ignored by the Chinese. Many commentaries on the *I Ching* have been written. One collection, called the "Ten Wings," is at the level of canonical literature. These ten essays, which date at least as far back as the time of Confucius (551-479 BC), discuss the meaning of the trigrams and suggest philosophical or mystical explanations as to the workings of the *I Ching*.

In the Fifth Wing the origin of the *I Ching* is attributed to holy sages who withdrew from worldly concerns to purify their minds. (Actually most Chinese literature attributes the *I Ching* to four wise men: Fu Hsi, King Wên, the Duke of Chou and Confucius. Fu Hsi is a legendary figure of the earliest times and is considered the inventor of the linear signs making up the trigrams. We have already

In astrology ESP can bring about positive results during the astrologer's interpretation of the positions of the heavenly bodies. His ESP might determine what interpretation he gives to the physical situation.

The Tarot is similar in this respect. ESP could enter into the practice in the interpretation of the cards once they are spread out. The fixed, or traditional, meanings of each card are sufficiently vague that there is ample room for the reader's ESP to work. Also, the reader can precognize the future correct answer to the question, then use his ESP to clairvoyantly perceive the order of the deck and stop shuffling when the deck is in an order that will indicate the precognized future. Again this might sound

briefly discussed the role of King Wên and his son. After their contributions Confucius is said to have given intensive study to the *I Ching* and to have written part of the commentary on the book.) Once they had clear minds they could understand the tao—the root of all change—and thus could know the future. In this divine state they were able to penetrate the mind of man. Concerned for man's needs, these wise men created the yarrow-stalk oracle. Since the oracle is a product of concentration and meditation, a similar attitude is required for successful consultation.

The choice of yarrow stalks was not arbitrary. Since they grow (in sacred places), they are taken to be representative of life and, consequently, change. There seems to be a numerological basis for the method of consulting the oracle. One of the Wings states:

The number of the total is fifty. Of these, forty-nine are used. They are divided into two portions, to represent the two primal forces. Hereupon one is set apart, to represent the three powers. They are counted through by fours, to represent the four seasons. The remainder is put aside, to represent the intercalary month.

There are two intercalary months in five years, therefore the putting aside is repeated, and this gives us the whole.

Further, the First Wing points out that the numbers which yield that hexagram made up of all positive (yang) lines, the Creative, total 216. Those yielding the Deceptive, which is made up of all negative (yin) lines, total 144. These two totals add up to 360, the number of days in the ancient Chinese year. Many similar numerological observations are made concerning the number of lines in the *I Ching*, the number of operations required to obtain each hexagram, the reason there are eight basic trigrams, etc. All this points to the belief that there is some sort of "cosmic glue" holding the universe together, and the *I Ching* contains the basic pattern.

The Ten Wings not only discuss the mechanism and workings of the *I Ching*, but also contain insights into the meanings and interpretations of the 64 hexagrams. The hexagrams represent universal categories; everything that occurs must be one or a combination of these categories. These categories are not external ("out there"), but are in the mind of man. Man structures his world by the concepts he brings to it. Everything must exist, change, cease to exist in accordance with the basic structure of man's mind. Once these categories are fully understood, then one can know the future and past. The same laws that govern change in the physical world govern change in the microcosm of the *I Ching*. The master of the *I Ching* is the master of all.

far-fetched, but there is an effect quite familiar to parapsychologists called the "psychic shuffle" which is precisely this.

Results Not Immediately Falsifiable

A third survival trait which I find in the three practices discussed is that none of the practices yield results which can clearly be seen to be wrong.

The *I Ching's* predictions are often so vague that it is not easy to tell if they are right or wrong. Further, if it can be seen that a prediction is wrong, then possibly the practitioner was not in the right frame of mind or skilled enough.

We are also told that astrologers are not equally adept. Thus if the result of casting a horoscope is not successful, we know it must be the astrologer's interpretive abilities that are lacking, not the stars. Here too this room for interpretation diminishes the possibility of the actual practice being shown to be inaccurate. There is always the excuse that the interpretation was faulty. This is true of the Tarot as well, where if success is lacking, the cards may have fallen properly but the interpretation of them may have been faulty.

To summarize our analysis of ancient practices still used, we have found three principles which might be responsible for their survival: (1) The practices have principles built in which help to select practitioners who might be psychic and also put these practitioners in a frame of mind that might be favorable for psi performance. (2) The practices are designed so that there is ample opportunity for ESP and PK to bring about positive results. (3) The practices are not readily shown not to work.

If these factors are the reasons the practices survived, an examination of an ancient magical practice no longer in use should reveal an absence of these factors. For a comparison of the successful with the unsuccessful, we can look at the practices of the ancient Egyptians.

AN ANCIENT MAGICAL PRACTICE NO LONGER IN USE

The Egyptians had a tremendous belief in and preoccupation with magic. The crossing of the sky by the sun and the growing of their crops were not mere natural phenomena; they were manifestations of Re, the sun god, and his power. For the pharaoh to be resurrected the priests had specific spells or utterances that had to be said. When the mummy of Tutankhamen was discovered, over one hundred talismans and charms were found concealed in the linen in which the young king was wrapped. It is interesting that a society so concerned with magic and with such a rich legacy has not given us a magical practice still in use, while other societies

have. Perhaps by examining the Egyptian system of magic we will see why this is so.

The Egyptians believed that when magic was performed the word became the reality—saying was becoming or causing. Magic was a powerful god. In the tomb of Rameses VI, Magic is repeatedly depicted riding in the solar barge carrying the dead pharaoh to the Netherworld.¹ In some sections of the Book of the Dead there is included a spell to make one become Magic.²

Frequently the spells to be recited to bring about a desired effect involved Egyptian mythology. If a child was stung by a scorpion, the following spell was to be recited four times by both magician and child:

I am Thoth. I have come from heaven to protect Horus, to repulse the poison of a scorpion which is in any member of Horus.

The head is thine, Horus, it will be stable under the Very Great Crown.

The eye is thine, Horus, thou son Geb, lord of the Two Eyes among the Ennead.

The nose is thine, Horus, thou Horus the Elder, son of Re, thou breathed not the hot wind.

. . .

The belly is thine, Horus, the children of the gods who are in it do not receive the poison of the scorpion.³

In the mythology Thoth healed Horus, so in the spell the magician becomes Thoth and the patient becomes Horus.

There are spells where the magician becomes Isis and spells where the patients' anatomical parts are, by the recitation, transformed into various gods and then the protection of the gods is invoked.

In general the way Egyptian magic worked was by the word becoming the deed. By saying the name of the god one became the god. This is why in the afterlife the deceased pharaoh was referred to as Osiris, the god of the afterlife whose name had been invoked. Similarly, Isis became the most powerful Magician by learning the name of Re. This principle of the power of the word is well illustrated by the largest collection of spells and utterances known, the text on the pyramid of Unas, the last king of the Fifth Dynasty (2375-2345 BC).⁴ Here we see this principle embodied in scores of spells and utterances designed to help the king in the next world.

It is important to note from this admittedly skeletal sketch of Egyptian

magic that what I have been calling the three success principles are lacking. First, there is nothing in which one puts one's faith. It is strictly the magician's ability that is to bring about the result, and this may not be the most favorable condition for the magician's paranormal abilities to work. Second, there does not seem to be ample opportunity for the magician's ESP or PK abilities to come into play. Third, the practices are easily shown to be nonefficacious. If the child dies of the scorpion bite, for example, then clearly the magic did not work. All this suggests that the three principles extracted from the ancient practices that have survived may indeed be the reasons *why* they survived.

EMPIRICAL TESTS OF PRACTICES

Ancient Practices

So far I have been discussing in hypothetical form the success features of the three ancient practices still used: "If they are successful, then it might be because. . ." I want to strongly emphasize that this need not be left in hypothetical form. It is an empirical question whether or not a given practice or ritual has any efficacious features. At the 1971 meeting of the Parapsychological Association there was a research brief describing an experiment with the *I Ching* which reported encouraging results.⁵ I too have begun preliminary research to empirically determine if there is anything to my survival-of-the-fittest hypothesis. The results are not yet sufficient to discuss in detail, so I will merely state what the trend seems to be: There is *some* evidence to support the conclusion that the Tarot and *I Ching* work. (My own studies of the *I Ching* are still in the anecdotal stage.) I have as yet been unable to gather any evidence to support the claims of astrologers. I will briefly describe the experimental design I have used to test astrology because before I conclude this paper I want to make a plea for anthropologists to conduct parapsychological experiments, and my design will illustrate what I am talking about.

The general problem in designing an experiment to test occult practices is that the practices give results that are so general that it is difficult to get clear-cut results. In my experiment I used a design similar to a matching test in standard ESP experiments. The participants were all students in my experimental parapsychology course at the New School for Social Research. One student, an astrologer, was given the times and places of birth of ten classmates. He did not know whose birth information he had been given. He cast horoscopes of the ten people and wrote as much descriptive material about them as he could. These descriptions were then copied and given without the identifying birth information to the participants. The hypothesis was that, if by casting a horoscope one could determine personality traits,

then by looking at the ten descriptions obtained from the astrologer, each participant should be able to pick out the description of himself. The odds for each participant correctly selecting his description is, of course, one in ten, and this makes the data easily subject to statistical analysis. The results of my preliminary investigations into astrology have given only chance results. That is, when an astrologer casts ten horoscopes, those whose horoscopes have been cast are not able to recognize the descriptions of themselves.

I should emphasize that my investigations are merely preliminary, and the observations too few to draw any conclusions. I merely wanted to suggest how occult practices might be empirically tested.

Modern Practices

So far I have been discussing ancient practices, but the discussion need not end here. There are many modern magical practices in use today by various societies, and the efficacy of these practices ought to be tested. Usually when an anthropologist goes into the field he is content with describing witchcraft and divination practices of the group he is studying. This can be evidenced by any of several anthologies on anthropology and witchcraft^{6,7} and has been pointed out by Francis Huxley.⁸ (There are of course exceptions such as Van de Castle⁹ and the Roses,^{10,11} but they are certainly in the minority.)

Anthropologists seem to feel that once they have described the practice their job is finished. I think this is quite wrong. Their job, even if viewed purely as a descriptive one, is not complete unless there is an attempt to determine whether the practices are efficacious. It is quite relevant to know whether the people are merely fooling themselves or whether they are really doing what they claim.

What I am suggesting is that anthropologists who specialize in magic, witchcraft, divination, etc., go one step further than they usually do and conduct some parapsychological tests along the lines I have discussed above. This would add considerably both to the value of their data and to parapsychology in general. If anthropologists interested in areas such as we are here to discuss would, as a standard procedure, administer an appropriate ESP test, then by examining those practices which do yield parapsychological results and comparing them with unsuccessful modern practices, perhaps there too we can extract parapsychological principles from anthropological studies.

REFERENCES

1. PIANKOFF, ALEXANDRE, trans., and N. Rombora, ed., *The Tomb of Rameses VI, Texts* (New York: Pantheon, 1954).
2. PIANKOFF, ALEXANDRE, trans., *The Litany of Re* (New York: Pantheon, 1964), pp. 51-53.
3. *Ibid.*
4. PIANKOFF, ALEXANDRE, trans., *The Pyramid of Unas* (New York: Pantheon, 1968).
5. RUBIN, LAWRENCE AND CHARLES HONORTON, "Separating the Yins from the Yangs: An Experiment with the I Ching." In *Proceedings of the Parapsychological Association*, No. 8, 1971, pp. 6-7.
6. MAIR, LUCY, *Witchcraft* (New York: McGraw-Hill, 1969).
7. MIDDLETON, JOHN, ed., *Magic, Witchcraft, and Curing* (Garden City: Natural History Press, 1967).
8. HUXLEY, FRANCIS, "Anthropology and ESP." In *Science and ESP*, edited by J.R. Smythies (London: Routledge & Kegan Paul, 1967), pp. 281-302.
9. *Parapsychology Review*, September-October 1970, p. 15.
10. ROSE, LYNDON, "Psi Patterns Amongst the Australian Aborigines," *Journal of the American Society for Psychological Research*, 45 (1951): 71-75.
11. ROSE, R., "Experiments in ESP and PK With Aboriginal Subjects," *Journal of Parapsychology*, 15 (1952): 122-137, 151.

DISCUSSION

HARDY: Thank you very much. Your presentation was extremely interesting. Yes?

ROBERT SUSSMAN: I did want to ask a few questions. First of all, a point of information. Another ancient practice might be divination, the kind that we studied in Madagascar which is of Arabic origin and is spread all over Africa. But there is one thing that I think should be mentioned in defense of anthropology, and also something that I think you left out. Efficaciousness might not just be a result of ESP. The vast paraphernalia that the diviners use and their interpretative ability (and we'll talk much more about this in our paper) gives the client more faith in the diviner and also gives the diviner more power to manipulate the social situation. In addition, these witch doctors have one step over many of the psychiatrists that are working today: in most cases, they are very very involved in the culture, which is a traditional, more homogeneous culture. The witch doctors often know what's happening and are very sensitive to problems within the culture. They work with social cures. The efficaciousness of divination may be a result of the diviner's sensitivity and not just of ESP. It would be difficult to separate the two.

BRIER: Yes, I agree entirely, Bob. I think this has social value—prestige

value for the practitioner. That's why I say at the end, these practices should be tested just for their parapsychological value. That's why I just couldn't leave it there as a theory and say I agree with you entirely.

ROBERT SUSSMAN: Can I add just one more point? I think the difficulty, again, would be trying to separate the two. It may be possible but very difficult.

BRIER: Maybe I should leave this point until after your paper, because I have one experimental design for your paper, for your description of divination that you're going into, that could be tested.

ROBERT SUSSMAN: That will be interesting. Why don't we do that.

HARDY: Dr. Kreitler.

KREITLER: Well, I hope anthropologists are tolerant with regard to other cultures, and since I come from another culture I will break a tradition here and criticize.

BRIER: Go ahead.

KREITLER: I can offhand raise or suggest about five theories explaining why these three methods or five or six which may exist survived, and I find it dangerous and unfounded to say they survived because there is also ESP implied. For instance, they could have survived because the culture in which they were practiced was more influential in this or that respect, etc. But more important, since you spoke about experimental studies, the design of your study as you explained it here could not qualify as an empirical study because asking people to pick out themselves or judges without determining in advance the exact criteria on which this should be rated is, at best, the beginning of a pilot study. But as long as you do not work with stricter criteria, especially in the domain of personality traits, you neither can prove nor disprove card guessing or astrology. If astrology should be put to a test, you must decide on very strict criteria. Don't forget that the psychological language is anyhow ambiguous. There's hardly a personality trait so well defined that ten psychologists could agree on its actual presence without relying on tests. Therefore we use tests which are more precise than their underlying definitions.

BRIER: The first point you mentioned: that there could be many reasons why the thing survived other than for ESP value, I agree with. That's what I was saying to Sussman and that's why I say the thing has to be put to a test for its ESP value. The second point I just don't understand at all. That is, there's no reason at all why I can't say to an astrologer, "Pick out whatever

criterion you can or think you can," that is, give whatever data you think you can on ten people. For some people it will be physical data: you will have a serious illness within the next year—and for some people it will be psychological data. And then he types out his ten sheets. Then if I give these ten data sheets to the ten people and if each one can pick out his own without knowing that it's supposed to be for him, that's a fine experiment. Not even a pilot. A fine experiment. It's the same design as at Maimonides and the same as an awful lot of others. Nothing wrong with it.

LEWIS: Could I launch a more major attack?

BRIER: Sure, go ahead.

LEWIS: Frankly, I never heard of any system of beliefs which didn't have its own built-in safety mechanisms, and I don't think that the ones that you've singled out are particularly significant or have any particular features which differentiate them from thousands of other systems of divination that I can think of and which are enwrapped in other belief systems, and the specific example you gave in contrast is very partial and incomplete and, in fact, it doesn't at all describe the belief system of the ancient Egyptians. It describes one little bit of it. But if you had taken any complete system of beliefs, let us say, for example, communism, socialism, scientology, witchcraft beliefs of the Zande, the school of Oxford linguistic philosophers—all these are closed systems of belief which have built-in failsafe mechanisms. There is always an out in any elaborated system of belief and you just picked up arbitrarily three rather well-known examples which, as you say, happen to have a long history. Possibly, as Dr. Kreidler said, they may have survived for a whole series of reasons unconnected with their success value. The point I am trying to make is that the success principles which you used these things to isolate, I would take to be universal and to apply to all systems of belief of whatever kind.

BRIER: Let me try to reply to that. I understand the force of your idea.

LEWIS: I could give you lots of examples.

BRIER: You did. It's interesting. You see, all of them are philosophical examples. What I think is important in these is that all of the claims of these practices is that they have empirical import. That is, they give results which can be seen. Now in terms of, say, the Oxford philosophers or communism, now if in fact they can be tested—if they really do have empirical import—then we can falsify them. But if, as you say, they can't be falsified, then clearly they can't have any empirical import. All the people who practice these things claim they have empirical import. Now, if in fact they

do have empirical import, I think they can be tested and thus this vagueness can be gotten around. It might require an elaborate experimental design, but I think they could be tested, whereas a system something like linguistic analysis—there's no way to test that.

LEWIS: I don't agree with you at all. I think that any system or thought impinges on reality and where reality doesn't correspond to the predicted formula which one would expect from the system of beliefs, there's always an explanation which saves the system of beliefs from disintegrating.

BRIER: Use the spell example that I have.

LEWIS: Yes. For instance, if I consult a diviner in any culture where people believe in diviners and he gives me information which subsequently turns out not to be correct; for instance, that my grandmother is going to die on Tuesday, and she doesn't. And I come back and I say, "Look, the old lady is still there. What you said is a lie." He will say, "Oh yes, of course, I was bewitched." Or "The oracle wasn't working today," or "Oh yes, I forgot to perform that ritual that I should have performed before I consulted the oracle." Or "You were unclean when you came to me." There's a whole system of rationalization just the same as in psychoanalysis. If you come to me and I'm an analyst and you tell me your problems, if I stop to explain how they originate, and you go away and nothing happens, I will be able to give a marvelous rationalization for the lack of success.

KREITLER: I very much believe that and I very much deplore the fact that psychoanalysis very often lacks the modesty of not claiming to be the universal answer.

WALTER: While traveling in Italy about fifteen years ago, I met a peasant woman who was a very good cook, but she was also known as a *Straigabianca*, which means a white witch. In other words, she didn't cast evil spells but good spells, and she used the Tarot cards.

BRIER: To cast spells?

WALTER: Yes, and to divine and to foresee. She spoke only Italian and she was rather deaf, so I had to translate and interpret for her all that was said, and I had all distinguished visitors like the people here, including Eileen Garrett. First of all she would put her Tarot cards in special order and go through the ritual of Tarot selection. After she had done miracles, I asked her how she did it. What she did in fact was, first of all she would say something very simple like, "You'll get an interesting letter." Now being rather deaf, she would watch the people very carefully and I would trans-

late and interpret for her what she said to the person. Now if she said, for example, "You will get an interesting letter," and if they smiled, she would say, "You will like him." I was very puzzled because after that she would identify the personality and the status of the person: a distinguished scientist, a beautiful lady, for example, all the extremes. One was Norbert Wiener who used the word cybernetics. She would then go on to talk to me about these people in the most extraordinarily penetrating way.

After several years, I asked her about this seeming miracle. I said "Teachy"—her name was Felicita, and she was called Teachy—I said, "How do you do it?" She was in the kitchen. She was a very good cook. She spent the whole day making minestrone. And I said, "But the cards are always different." And she said, "It is not the Tarot cards. It is the way people respond to the first questions. Then I get to know them because I watch the tiny expressions on their faces and from that I am able to interpret their status, their standing. I don't know their names. I don't know who they are or the country they're from. But from the way they respond, I say 'You're from America; you are from Italy; you are from France, from Germany, from Russia.'" From wherever it may be.

Well now, one instance of her penetration: Norbert Wiener came up to my house in a taxi. He was an old plump man with a beard like mine, just ordinary looking, she didn't know who he was; she had never heard his name. She looked at this man getting out of a taxi and said, "That man has much to do with the future." He had, indeed! He discovered or rediscovered cybernetics which has now become a world-wide, planetary, and sometimes in some parts of the world, a dirty word. After Einstein died, he was the greatest mathematician in the world. I met Einstein in Princeton, but Norbert Wiener was one of the greatest mathematicians. She didn't know a mathematician from an astrologer or from a peasant. She was a peasant, but she had this extraordinary penetration. An ordinary peasant from a little tiny town in Italy. Just a cook, but she had this power. But it wasn't the cards. It was the way that people responded to her very simple responses—at first very simple and then getting more and more personal. So there are many years of personal evidence of this one person, a *Straiga-bianca*, white witch. And in her own town (I met her the other day) she is still alive and still a *Straiga-bianca* and she casts spells and does good, not evil. Not a *Straiga-mira*, but *Straiga-bianca*.

BRIER: That's interesting. The history of parapsychology is full of this kind of thing, where mediums have just been very acute psychological judges of character. But on any experiment one would do, you'd have to rule out this sort of thing. I mean, for example, in my astrology experi-

ments, I don't even allow the astrologers to see the people for whom they're casting a horoscope.

WALTER: She was a very intense and penetrating amateur.

BRIER: Good judge of character too.

WALTER: I recorded her in a mediumistic trance and she spoke in a voice of a Syrian doctor of the eleventh century and it was not her voice at all. She wasn't an actress. But the information she gave through that trance was as penetrating as anything I've ever heard, about my own life, for example.

DEVEREUX: One small comment. I would like to disagree with one factual detail in what has just been said. I knew Norbert Wiener, and I think that describing him as "nondescript" is wrong. He was a most extraordinary looking person and a glance at him would tell you that he was an extraordinary person. And, I might add, a profoundly emotional person, not just an incredibly scholarly one. It was written all over him.

BOSHIER: One method of divination you haven't mentioned is a very common African one, the African witch doctor with bones. I have made thousands and thousands of charts on how these and all the other bones fall together. When I pointed out to a diviner that that particular cast couldn't mean that because he's already told me when they fall in that way, they mean something else, then one realizes it's got nothing to do with the way they fall. It's what the bones tell him or her, and they will always tell you this frequently. They may fall the same way a number of occasions and mean completely different things.

WEINER: Obviously the criteria, Bob, of seeing whether astrology works or not is a question which must have been asked before 1973 and before many many centuries. It's been practiced by millions and millions of people, and I really can't see how we can just say well, it hasn't worked in my classroom; I've done this number of experiments and therefore we ought to discount it.

BRIER: I haven't been able to get any positive evidence that the thing works, that's what I said.

WEINER: Well, it's not the right thing, it doesn't fit exactly. It's like Khrushchev going up there with the rocket and because he didn't see God there is no God. It strikes me as the same kind of thinking. It would seem to me that what you suggest, a kind of testing, is certainly in order. But it

would require a massive type of scheme, taking into consideration the huge numbers of people involved, the different kinds of intellect. You have whole continents, whole nations, sophisticated as well as primitive, who know all the objections and yet who cling to something here. One needs a far more embracing kind of testing than what you offered us here.

BRIER: I don't agree. I think all you need is one astrologer who can show that it works, Herb.

WEINER: But there are so many things that can go wrong.

BRIER: That could be said of any experiment. If the experiment is designed adequately, all one needs is one astrologer who can produce the goods.

VAN DE CASTLE: I don't think any parapsychologist would attribute any meaning to the actual distribution of the yarrow sticks, nor to the bones, the tea leaves, or any other device. However, a strong belief system and a type of cultural conditioning may enable the diviner to utilize these devices to enter into some altered state of consciousness. There's a considerable literature now accumulating in parapsychology to suggest that the altered state of consciousness, whether it be achieved through hypnosis, drugs, meditation, etc., enables an enhancement of the ESP ability to be manifested. So I think these are simply the means whereby the person enters into some light form of trance or altered state whereby he can then perform.

I'd like at this time to focus attention on another point. I'm sensing more and more that although this conference was to be dedicated to parapsychology and anthropology, I still find a tremendous resistance being expressed in this conference to a consideration that *maybe* there could be a psi basis for some of the magical practices. The prevailing approach seems to be towards totally viewing magic as an expression of intra-group tension or as simple superstition. I would hope that there would be more willingness to consider a psi hypothesis and that some conference members might be willing to try to put it to some sort of empirical test. If we can become sensitized to this possibility, perhaps it won't be so readily dismissed each time it comes up during the next two days.

PEASANT-HEALERS AND THE PARANORMAL

EMILIO SERVADIO

In 1957, due to the generosity of the Parapsychology Foundation and under its auspices, it was possible for an Italian team of investigators to spend a month in Lucania, an economically backward area of southern Italy, for the purpose of studying the activities of the peasant-healers who were operating in that region, also of examining other expressions of Lucanian lore possibly having parapsychological components as well, and of course the setting, or milieu, in which the aforesaid manifestations could in fact take place.

A preliminary report of this anthropological "expedition," or study mission, was presented by me at a Conference of the Parapsychology Foundation in 1958. However, most of you ladies and gentlemen who are attending this Conference were not present at the one mentioned, and moreover, in the meantime it was possible for me to make some fresh evaluation both of the Lucania material, and of that ever-puzzling problem, healing—with all its undercurrents and possible parapsychological implications. This is why I have taken up again the subject of peasant-healers and the paranormal on the occasion of this Conference, in full agreement with the Parapsychology Foundation's leaders, Mrs. Coly and Mr. Angoff.

Besides being carried out under the auspices and with a grant of the Parapsychology Foundation, the Lucania mission received approval and some support from two important Italian official bodies: the Rome Museum of Popular Arts and Traditions (controlled by the Ministry of Education) and the Institute of Anthropology of the Perugia University. The research team consisted of the leader of Italian cultural anthropologists, Professor Ernesto De Martino (whose sudden death a few years ago was a great loss to science); Professor Mario Pitzurra (a medical doctor and Assistant Professor of Hygiene at Perugia University); an Italo-American sociologist, Adam Abruzzi; Dr. Romano Calisi, also an expert in cultural anthropology and an executive of the Museum of Popular Arts; and myself,

as a psychoanalyst and a parapsychologist. Two ladies and an expert in photography, Mr. Ando Gilardi, completed the team. Two tape-recorders were used. Before starting, we made our plans as precise as possible, establishing contacts with some people in Lucania first by correspondence, then through a couple of short visits "on the field" made by Dr. Calisi. All this took many weeks of preliminary work. Our team finally left Rome on May 15, 1957.

Before going on more specifically into what we were able to observe in the region of our choice, it seems necessary to outline here some brief information about some anthropological characteristics of the Lucania area.

A constant ideological theme seems to dominate the whole life-span of the vast majority of Lucania's population, and I would call it: anxiety. For people whose cultural development was heavily hampered by social, political and economic obstacles, life presents innumerable dangers, some of them practical, but most of them of a mysterious, occult or magical origin. The very fact of being born is dangerous—nay, the drama begins before birth, while the human being is still in the mother's womb. This is why the mother must take all sorts of precautions in order that the child not be born with physical or mental defects. The acts performed or avoided by the mother are mainly based on "magic by resemblance." For example: an expectant mother will not cross her arms in church, or make knots in a string, or fold a scarf around her neck, for fear that the newborn should have its umbilical cord folded tightly around its neck and get strangled. All sorts of magical acts are connected with breast feeding, milk, etc. Practically all the mothers who have babies at the breast are afraid that envy, the evil eye, spells, or even involuntary acts might take their milk away. Their apprehensions can reach levels which in our psychiatric language would be called paranoid: even a simple phrase hinting at breast feeding is apt to be considered allusive and dangerous.

Baptism has not only a religious but also a magical virtue—to the point that in some Lucania villages a pig which loses weight and is finally considered to be the victim of a spell can be subject to a sort of "baptism" with water and salt as a countermeasure! During the baptismal ceremony of a newborn child the behavior of everybody: the infant, the parents, the relatives, the onlookers, is closely observed, and gives rise to all sorts of interpretations and forecasts.

Children very often are given a small satchel to wear under their shirt, for protection against evil. This satchel is commonly called an "abitino" (literally, *little dress*). It contains all sorts of charms, such as three grains of corn, one hair of a black dog, three small wooden crosses, some images of saints, small fragments of a holy wafer, three grains of salt, etc. Adults

seldom wear such "abitini," but many put them on again for particular occasions, e.g., if they start on some important venture, or if they have to meet people or circumstances that might be "dangerous," etc. Many different charms, amulets and talismans are of everyday use, as well as small or big magic acts and ceremonies to protect a person (especially a child) from all sorts of inconveniences and/or diseases. Several of such enchantments terminate with religious invocations or prayers ("Our Father," "Hail Mary," etc.).

Particular references, due to our main theme, have to be given to the subject of disease and healing. Disease is almost always considered as containing per se some magical, occult element, or halo. The magical ailment *par excellence* is of course that which is considered due to some bewitchment, or spell. It is called the *fascinatura*—literally, the state of being fascinated (in an evil and compelling way). The person who feels "fascinated" is in a state of psychological uneasiness, or dismay, and inhibition. The subject feels languid, despondent, deprived of vital energy. But most important of all is the feeling of being "acted upon" by someone or something, i.e., to be the target of somebody's evil eye or bad influence or deliberate magical operation.

This condition gives rise to all sorts of diseases where the magical element is not a component but I daresay the very essence, and whose cure therefore pertains to the realm of magical procedures. The therapist, if any, in these cases is certainly not the medical doctor but the performer of magic. What could a doctor do, e.g., to a woman who suddenly suffers from an inflammation of the eyes due to "fascination"? The remedy applied in the village of Tricarico was the recitation of a little poem quoting a similar ailment which tormented none less than Saint Peter, and how Saint Lucy, the protector of the eyes, could perform a cure by caressing the forehead of the sick person with a small palm-leaf. If the therapy is applied by a magician-healer, obviously it works more surely and more effectively.

Innumerable in Lucania, as in many areas all over the world, are love ceremonies, love spells, love potions, and love charms. It would take a very long time to quote half of them. But one formula used by young girls in the village of Grottole is so sweet that to quote it at this point seems almost irresistible. The girl munches the leaf of a particular weed, and then strikes it slightly over a part of her body, saying in a low voice:

"Branch of love,
If he loves me make me a rose."

and if the spot then presents a light rosy hue, the girl is reassured and happy.

Also prevalent are the episodes having the common universal theme of the return of the dead. Several people in Lucania report with evident sincerity how they suddenly met ghosts: some of them bearers of messages or requests, some simply and silently dissolving after a short appearance, some behaving in a reproachful or threatening fashion. The general result of such encounters, according to what the subjects report, is that the person who had the experience is caught by "cold and fever" and has to stay in bed for some days.

Several people, with remarkable uniformity, report that by chance, while walking at night or at dawn, they attended "the Mass of the Dead." A church was found open, and a Mass was in progress. But some dead acquaintance, who was attending the Mass, informed the onlooker that the Mass was not for a living person, but for the souls of the dead. The chance visitor, thus the story usually ends, fled in terror, reached home, and for three days stayed in bed "with cold and fever."

A peculiar psychological atmosphere obtains which makes Lucania magic so immanent and all magical events and beliefs so naturally accepted. As Professor De Martino once stated, the premise of it all "is the frailty and smallness of actual psychic presence, and the consistency of a more or less crepuscular or nocturnal halo in which intentions can move freely. . . ." A sort of secret vibration moves about, which might be called a free magical proneness, the immanence of occult correlations and occurrences.

It seems to me that the aforesaid overview of the Lucania psychological (or should we say "psychic"?) panorama was opportune, and that we are now better equipped to proceed with the report of something that the study mission was able to observe and to gather. In the end, some comments and deductions will be presented, dealing with the ever-possible presence of psi elements as factors of the occurrences, also with their underlying conditions and working mechanisms.

* * *

The first center selected for our investigation was Albano di Lucania, a small place about an hour by car from Potenza, the main town of the area. In Albano we were able to contact several people and to assemble plenty of "material." A few of the "cases" which were the subject of our search will now be described. I shall report only two or three episodes, in order to have more room for comments and interpretations.

1. *The case of Rocco A.*: This boy of eighteen three times found himself in the morning tied to his bed with small ropes and/or belts. Neither he nor anybody else were able to give a plausible explanation of such strange

occurrences. After the third time the boy felt so ill as to be unable to walk. His parents applied to a magician-healer, who advised them to have Rocco bathe his feet for nine consecutive days. After the ninth bath one of his toes bled. He then felt well again and went alone to thank his healer.

Comment: A plausible interpretation of this case could be made in terms of self-persecutory acts performed in a somnambulistic state. The "cure" would have been due to authoritative suggestion, and the acceptance of a penance administered by a father-image, onto which the subject's superego would have been temporarily projected. We may very well interpret the fact of being tied up as a form of (self-) punishment for prohibited fantasies or deeds, possibly of a sexual nature. The inability to walk would be a further effect of condemnation by a harsh superego, and an equivalent of inhibition of all sexual or aggressive actions. The bleeding of the big toe could be a psychosomatic equivalent, through displacement and a purely symbolic innuendo, of castration, as well as a final redeeming sacrifice on the superego altar. I am simply giving you what I, as a psychoanalyst, have to offer. However, one may easily see from this kind of "material" how different is the setting of ailing and healing in such a particular sociocultural area, and how ill at ease one can be when trying to apply our customary psychological tools to such occurrences. And, can we rule out completely, unless we should start from an *a priori* denial, that some psi element could have been at work in the whole process? I daresay not. In other cases this "presence" of some psi agencies has appeared even more plausible, as in the case which follows.

2. *The case of the F. family:* All members of this family had been time and again the subject of strange phenomena of a mediumistic-persecutory kind. The father, Donato, repeatedly found mysterious words written by an unknown hand on the plaster contrivance he wore at night on account of two fractured ribs. Donato's wife, Maria, on waking in the morning, often found her shoelaces tied up in knots. Their young son, Rocco, had macabre visions and often walked in his sleep.

Comment: In this case, we may find a good example of how psychoanalytical and parapsychological interpretations are not exclusive, but rather how very often they seem to justify and to integrate each other. The analytic working hypothesis would be, of course, that of a series of unconscious aggressive acts performed by the boy, Rocco, during his frequent somnambulistic fits. His "visions" during such fits might well have been distorted and threatening images of his parents. "Tying up" something or somebody seems to be a recurrent aggressive motive in the whole Lucanian area, as shown by many examples, including one particular case that was investigated by our team, and that presented striking similarities with the

case of Rocco A. (Case No. 1). The very idea of inhibiting or stopping something is obviously connected with making magic knots in order, e.g., to prevent a man from having sex, or a woman from becoming pregnant. We already mentioned the fact that in many Lucania villages, a pregnant woman does not perform any action which might be compared to "tying," for fear that the newborn child could be tied up and strangled by the umbilical cord.

On the other hand, from a parapsychological angle the whole situation could be viewed as a case of *poltergeist*, having its unconscious instrument and/or catalyzer in the young boy, whose somnambulistic fits could also be considered as trance states with their usual accompaniment of dream-like mental activity. If this were the case, the actions performed upon the other two members of the family might have been aggressive "tricks" such as a respectable poltergeist (let us not forget the literal meaning of the word) is supposed to perform. However, do we not know from many famous poltergeist cases that aggression and hostility *are* the underlying propellants of such phenomena, and that these are regularly due to outbursts of repressed impulses in children or adolescents, sometimes also in grownups who are still fighting with unconscious pre-adult problems and conflicts? As we see, the parapsychological interpretation of the case, although unproven, gains more plausibility if implemented by the analytic views; although here again, as in the previous case, we are faced with a very peculiar setting and milieu. How difficult it is for us to imagine a young boy who in a somnambulistic state or a trance condition, normally or paranormally, carries out his fantasy of "making mother keep still" by tying her shoelaces up in knots.

Another typical case where the widespread aggressive motive of "tying up" something goes along with persecutory or self-persecutory acts—which again may have been of normal or paranormal origin—is the following:

3. *The case of Isabella D.*: This case concerns a girl of about eighteen years of age, living with her mother, a still good-looking woman in her forties, in a lonely spot in the outskirts of Albano. Some time before our visit she found herself one morning with her hair tied up in a great number of small knots, quite impossible to undo. Both Isabella and other people ascribed the occurrence to the action of an unjustly resentful sorceress. Isabella had to have her hair cut and was still wearing it very short when we approached her, and as may be seen in a number of photographs.

Comment: The psychoanalytical interpretation is here almost obvious. The girl had vented upon herself her own hostility against a mother-figure, occasionally represented by the "sorceress" (who actually was an elderly woman with whom Isabella had had a simple exchange of words). In her

self-persecutory performance, during a somnambulistic state, she had inflicted a severe punishment upon herself, spoiling a trait of her feminine beauty, and preventing herself—both factually and symbolically (the knots again!)—from having amorous experiences and therefore forbidding herself from “competing with her mother” (in the sense of a renewal of Oedipal fantasies).

But is this all that can be said? Is it an easy task for a girl to make a hundred knots in her hair while in an altered state of consciousness and totally unaware of what she is doing? Could it not be that a paranormal element had come in, making the whole procedure actually possible? We all know that during trance or trance-like states, some people have been able to perform deeds which would have been impossible to carry out otherwise: from lifting incredible weights, to walking on fire, to running for days and nights without stopping, as the *lung-gom-pa* of Tibet are reported to do; and that in several such cases, we had to admit that the barriers between normal and paranormal had been largely overcome. It is admissible, therefore, that also in the case of Isabella D. we were faced with a blend of depth-psychological and parapsychological processes, all nicely tied up (if such an expression can be admitted at this point) in a typical Lucanian story.

* * *

The problem of magical healing in Lucania is only a part of the total panorama. However, due to the original purpose of the study mission and to the title of this report, I shall now give some information about the healers we have met. All in all, we were able to achieve personal and somewhat prolonged contact with three of them: two men and one woman. The first, called “Uncle Joseph,” lived upon a hill at a certain distance from Albano. He appeared to us as a downright scoundrel, endowed with a smattering of “occult” knowledge but above all with uncommon psychological subtlety and *savoir faire*. Now dealing with “learned people” (so he called us), he made jokes about magical healing, denying that he ever had performed such practices (whereas we had gathered a number of reports about his “cures”: based either on simple rituals or on the administration of concoctions, ointments, etc.). We also learned from more than one person that the private life of “Uncle Joseph” had been far from exemplary. Altogether, a very complex and interesting personality.

Near another village, called Valsinni, we made the acquaintance of a second, also remarkable type of healer, whose name was, again, Joseph. He, too, lived on a hill (as these healers very often do) that could be reached in

forty minutes' walk from the village. The man was in bed, ailing. Professor Pitzurra examined him and said that the poor "healer" had almost certainly cancer of the stomach (he was right, we learned after some months that the man had died of the aforesaid disease). Contrary to "Uncle Joseph," the Valsinni healer appeared to be a person of perfect good faith, holding to an old tradition of witchcraft and thaumaturgy. He enjoyed a vast popularity and told us with pride that he was consulted very often also by correspondence. "People write to me from such cities as Naples or Taranto—even from England!" he exclaimed. Then he described some of the wonderful things he had done, both in the field of magic healing and extrasensory performances. He too appeared to us to have a remarkable personality, and we certainly could not rule out that his influence and interventions might have had quite surprising effects in several cases.

In the village of Genzano we met an interesting feminine "diviner-healer," Paolina C. She was interviewed by several members of our team and explained to us at length the technique she used in her consultations. Although completely merged in the typical atmosphere of Lucania magic, she appeared to us full of common sense and intuitive qualities, and not devoid of feminine charm although no longer young. A lady member of the team reported that Paolina had told her very accurate things of a personal nature that she could not have known through normal channels. There again, we were impressed with an unusual, quite interesting personality.

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I have already pointed out that in view of the psychological features and components of the terrain in which this or that "sickness" arises, the peasant-healer is quite often resorted to in preference to the doctor. The healer's action seems to provide a sort of psychological, psychotherapeutic, possibly also parapsychological "first-aid" for individuals going through a crisis, and makes itself felt in the field where he, the healer, knows that his magic enables him to oppose the obscure forces of evil. One interesting parameter of the healing process is the releasing, on the part of the healer, of the guilty feelings of the patient, whose sickness is often to be interpreted (just as in the case with so many of our own "cultivated" patients) as an unconscious self-punishing process. The Valsinni healer, after one of his clients had described his complaints and after he, the healer, had given him amulets and recited some magical formulas, said in a solemn tone: "Go home, and unload yourself of it all!" One had the impression that he wanted somehow to relieve the patient from a "load" which was at the same time physical and psychological, a heavy burden made of guilt, anxiety, and suffering.

In fact, in the Lucania countryside a client goes to the healer whenever he feels that what happens to him or to a dear one is something about which "outside" persons, including the man with an M.D. degree, understand nothing. These phenomena range from the evil eye to witchcraft; from feeling an utter despondency and depression due to "fascinatura," to sterility and lack of milk in women; from objects that inexplicably change place in the house, to cattle that are wasting away.

The very notion of "illness" is different from ours in this context. But is it really so much different? Or is it perhaps that what appears so clearly on the surface in an area like the Lucania countryside (and one might undoubtedly quote many similar areas in the world), also exists to a notable extent in our "civilized" cities, but only as strongly repressed material, at deep unconscious levels? Does not "magic" intervene and show itself by flashes in many aspects of our respectable medical situations, e.g. when the doctor solemnly gives the patient a placebo—and it works—or when we see an educated person invoking from the doctor not a cure in the scientific sense of the term, but actually a *miracle*?

The curious fact is, as I pointed out in a 1963 essay,¹ that in a way, the patient is right: because it appears perfectly true that the psychological, emotional, unconscious factors are at work in almost all processes having to do with illness and healing. These processes vary of course according to the personalities of the sick people and of their healers, and are also heavily conditioned and modified by the cultural level and background of the community in which they live. Regarding possible psi components in the aforesaid processes, I may simply add the following remarks (from my own 1963 paper) to what I have tried to say up to now:

Studies of paranormal occurrences in the psychoanalytic situation have convinced me that the psi factor is a sort of constant possibility in the analyst-patient relationship, and that many psi phenomena during psychotherapeutic treatment do indeed occur, but escape our attention. The analyst-patient relationship, however, is not to be conceived as a *rara avis*, or as a human encounter of a unique kind. I am of the opinion that what we psychoanalysts call the transference-countertransference situation, which can be so dramatically apparent and prominent in the analytic process, is only an enlargement or an intensification of something which goes on constantly in human relations, provided these are close enough to give rise to a strong need for communication, to unavoidable psychological regressions towards more irrational-emotional psychological levels, to frustrations and obstacles that one strives to overcome, etc. It seems quite apparent that a *real* therapeutic situation, where *both* patient and therapist (in different degrees, of course) are apt to feel linked by a particular bond (reproducing at times an archaic couple in which we may see the "powerful and protective parent" and the "distressed and helpless child"), presents us with an example of a very favorable terrain for the occurrence of

extrasensory phenomena. Many doctors are nowadays quite aware that what goes on between them and their patients (or at least, some of their patients) shows at times phenomena of immediate understanding, "hunches," sudden and curious variations in the course of the illness following alterations in contacting and "communing," etc., which cannot easily be explained away in rationally and medically orthodox terms. . . .

As already pointed out, this dual situation is largely conditioned by the cultural characteristics of a certain area. It would seem only logical, therefore, that in a region like Lucania, *everything* that goes on between the patient and his healer should be more explicit and less subject to repression, including the psi components of the therapeutic process. In a sociocultural context like the one we have observed, regression: i.e. abandonment of logical, two-and-two-make-four levels of thought, seems much easier than, say, in Rome or in London. In fact, we are faced in Lucania with a psychological panorama where the "two-and-two-make-four" level is never completely and stably reached. This means, as we might put it in other words, deeper or quicker contact with a collective, obscure, less personalized psychic world: i.e., with a realm where many distinctions cease to be valid, the deep roots of single individualities can possibly merge, and psi phenomena are to be considered part and parcel of what goes on, as several parapsychologists have contended for quite some years. Also at home in this underground world, whose aspects are less subterranean in a region like Lucania than in our big cities, are, to give you the conclusions of this paper, the "magic" interpersonal influences, the enchanted atmosphere from which people and things seem to be enshrouded, also those energies—psi or otherwise—which can make a man ill, or restore his health as well as his ever-precarious, anxiety-loaded, "normal" state.

REFERENCE

1. SERVADIO, EMILIO, "Unconscious and Paranormal Factors in Healing and Recovery." Fifteenth Frederic W. H. Myers Memorial Lecture, 1963 (London: Society for Psychical Research, 1963).

DISCUSSION

HARDY: Well, thank you very much for this very charming and vivid account of these remarkable human phenomena. It is now open to discussion.

WALTER: I was going to add an observation of mine. In a very different

part of Italy, in Liguria, where in the old town where I live usually, when I was a child I saw a great many of the peasant fishermen and I asked them, when I spoke Italian well enough, "Well, now why this *posto nero*?"

SERVADIO: What?

WALTER: *Posto nero*. Black place. This is against the evil eye and you can see exactly that on Roman tombs. It goes back 2,000 years. And even in Volterra . . .

SERVADIO: Of course there's a deep psychological meaning, as everybody knows.

WALTER: That's a long way from Lucania. But it's Italy.

SERVADIO: It should perhaps be pointed out that there have been very careful studies on the replication of gestures on vases seen in southern Italy and the thing is amazingly tenacious.

HARDY: Dr. Weiner?

WEINER: The wonderful clinical study here confined to this town—my first thought is that this hunger for healing, Dr. Servadio, is as prevalent in London and New York as it is in these little towns. There's a rock-and-roll operetta called "Tommy," where the main refrain is something like "Touch me, feel me, heal me," and I don't know of anything stronger these days in modern society than this hunger for healing. What puzzles me in this illuminating paper and in many other papers which I've had the pleasure of hearing at this type of conference, is why we have to bring in the words like "magic," or "extrasensory perception"? Particularly when a person like yourself is able on a psychological basis really to give an explanation, as you've done in a commentary all along the line; in which you've been able to explain it in your own terms of reference. And if we accept the fact of psychosomatic medicine (which we all do), then we have another explanation. If we want to accept a religious kind of explanation in terms of a person receiving a kind of sense of God's presence by these little tokens which she wears, we have a third explanation. We have so many levels of explanation. Why do we have to use a word like "magic," or "extrasensory perception"? My only reason for arguing against a use of such words is we might run the danger—if we blur what can be explained in psychosomatic, psychological terms—of not being able to look for the specific psi phenomena.

SERVADIO: I use the expression "magic" not because I believe in magic, but because it was used all over in the Lucania area. Those peasant healers

in the Lucania area are called "Maciari," those who perform magic, so this is their name, you see. Extrasensory perception is a concept commonly used in parapsychological language and you yourself at a certain point have said ESP. What is ESP if not extrasensory perception?

WEINER: Yes. I'm only trying to get a narrower definition so we can talk more of what goes into it.

HALIFAX-GROF: We keep running into problems, and, in a way, the end of my paper was trying to deal with that subject: that is, culture bearers have their own set of explanations which don't necessarily mesh with what we might posit to be the possible or the plausible explanation, or the logical or the rational or whatever. There's a confusion, really, in epistemology here, and I think what we have to do is graciously acknowledge that we're coming from many different directions; if Dr. Servadio uses the word "magic," I don't think he uses it in the sense of denigrating the practice, but rather in the sense of how the culture bearer explains what he does. Or if someone else uses ESP; for example, I would probably say extrasensory perception and maybe for a parapsychologist of one type that would be a misapprehension of psi phenomena, but for me it means psi. I'm just not that sophisticated in parapsychology, and I think that at the end of the conference it would be a good idea to separate epistemologies and attempt to analyze the various belief systems, ours included.

SERVADIO: Yes, I agree with you.

WEINER: Yes, I agree.

HARDY: Dr. Kreitler?

KREITLER: I want to answer in view of the argument here, by bringing up gestalt psychology. You said that two and two are four, but not exactly always in this area. Now, we know perfectly well that in spite of the fact that two and two are four, four is always much more than two and two because it is the sum of one and three. Seven has qualities which you don't find in four and three. And the same principle applies to all our psychoanalytical interpretations. Usually, we have more than one interpretation, two, three, four, and they even may add up. But this sum does not make a whole, which by definition is more than the sum of its parts. Yet for the mysterious "more" you need a further interpretation, and, here, sometimes ESP may come in.

GROBER-GLÜCK: I only would stress that the facts as you have described are well-known in Germany, in Cologne, in my discipline. We call it

"Volksmedizin," and we may find there the same facts with regional features.

LEWIS: I wonder if I could take up the point which Dr. Weiner has made in response to Professor Servadio's paper and play the devil's advocate a little and ask the members of this conference if psi is a residual category.

HALIFAX-GROF: Could you tell me what you mean by residual category?

LEWIS: Yes. Is it a box or a label which you attach to things for which there are not other available labels in your epistemology or in your world view?

HALIFAX-GROF: I think that's a very relevant question.

BRIER: Yes, I think it is. The definition of parapsychological phenomena are those phenomena which aren't explainable in terms of modern physics, Ioan.

HALIFAX-GROF: As we know it today.

BRIER: Yes, as we know it today. Maybe tomorrow we'll be able to explain it within physics.

LEWIS: So the category diminishes possibly. It stops being.

BRIER: Possibly. But that doesn't mean that study diminishes. There might still be very interesting phenomena, but eventually there may be no psi phenomena: no phenomena which can't be explained by physics.

LEWIS: If I might just add a little point, Mr. Chairman. Do you equate psi with supernatural?

BRIER: I'm not sure what's meant by supernatural.

LEWIS: All right: religious. Do you equate psi with magico-religious?

BRIER: No.

LEWIS: Where is the difference?

BRIER: I think to some extent religious claims are nonempirical, whereas psi phenomena are effects which can be readily seen. There's a big controversy in parapsychology today regarding religionists. Some people feel that parapsychology and religion are working together. For instance, take somebody like Howard Wilkinson, Chaplain of Duke. He feels that prayer is telepathy because clearly there's nonsensory communication, communication which is beyond. So he'll say that prayer is telepathy. There are

other people in religion who will say that parapsychology is working against religion because what it is showing is that there's nothing miraculous. The parapsychologists are saying that anybody can walk on water, all he has to have is the right ability.

SMITH: I think it's very important especially in connection with beautiful cases such as you have shown us, to bear in mind that various powers can manifest themselves regardless of the costume and the dress or the sophistication of the people. I once went to a seance. I didn't want to go but I was persuaded to go, and it was the most seamy sort of an atmosphere of decay and self-deception and I just wanted to get out of that place. There was an old lady with a whiny voice who said, "The medium who was to have been here has a cold, so I'm taking her place," and I thought, well, we're getting the second best. She got into a box, pulled the curtain, and she sighed, and it just gave me the creeps. Then she picked me out, after giving messages from "aunty" that everything was all right, and began giving information that was fantastic; it was ostensibly predictions about the future. I think she was simply reading my mind, but she certainly *was* reading my mind. I used to think that I could perhaps form some judgment as to what was authentic and what was not, but now I am increasingly like a wide-eyed child and tend to withhold judgment. I think in a case like this, you never know where psi is operating. It may operate at a one percent level or it may operate here and there in the most unlikely circumstances.

LEWIS: If I may say so, I think that one of the sources of confusion here is that we are not using the same words to refer to the same things, and we are frequently giving the impression that we're denigrating something because we use a different name for it. It seems to me there are a lot of semantic misunderstandings.

SMITH: On the matter of definition: I have no clear definition of psi or paranormal.

KREITLER: It would be easier to split it up. Since up to now there is no good reason to assume that telepathy, psychokinesis, and precognition are mediated by the same process or the same force, we use the word psi for the whole phenomena, for everything that we don't understand. But in certain cases, for instance if we speak about clairvoyance or telepathy, we have something like an operational theory in the background. Because there are certain hypotheses which at least try to explain modes of functioning, the word psi is used as a general label while the names of different fields, as for instance psychokinesis, point to an observable sequence of events and to the psychological domain to which they may belong. When I'm speaking about

ESP, what I have in mind is a certain type of communication which is either telepathy or clairvoyance. Of course I am still unable to explain it, but I could suggest some unconfirmed hypotheses. The same goes for people who speak about psychokinesis. They assume physical forces of this or that sort. But the moment we say let's assume a sixth or a seventh force which lifts light objects, we have already a hypothesis, and this helps us to clear up what we are talking about.

LEWIS: Where we can be specific, by all means, let us be.

VAN DE CASTLE: To expand on Ioan's question, how I would view parapsychology or psi is that at the present time in Western science we have certain explanatory constructs which seem to account for a large percentage of the phenomena that we observe, but there still appear to be instances where there has been an information exchange which one cannot account for in terms of sensory cues or rationally determined inferences. If very detailed information could be given about a person in such a way that it could not possibly be accounted for through any known sensory channels, then we would be willing to entertain a notion that there had been telepathy. Dr. Kreidler just mentioned that there could be another energy system in terms of psychokinesis, in which the consideration would be that through some act of mental concentration, there could be a transformation of energy by which, for example, some distant physical event could be effected. A remarkable example would be if I could concentrate on a glass across the room and through focusing my attention on it, cause the glass to be shattered. In terms of an anthropological framework, the possibility is raised that on some occasions the witch doctor may be able to use telepathy to obtain information about a distant event, or that through the intense concentration produced by his engaging in shamanistic rituals, he could manipulate external forces and cause energy transformations so that a hex death could occur; or objects could be levitated or moved about in place.

In one sense, parapsychology is now a residual science since it deals with leftover phenomena that we can't account for in terms of our Western knowledge. Perhaps as time goes on, the class of events now considered as psychic manifestations will become narrower or even disappear as more comprehensive explanations are found. On the other hand, perhaps some things which we might think we have currently explained because we have labeled or categorized them will be subsequently found to rest on psychic foundations. What we need now are open-minded scientists willing to examine the possible role of psychic factors in a variety of situations.

ANTHROPOLOGY, PARAPSYCHOLOGY AND RELIGION

ALISTER HARDY

Three years ago I presented a paper, "Parapsychology in Relation to Religion," to the annual conference of this Foundation at St. Paul de Vence. That conference remains so vividly in my memory as the last meeting at which that very remarkable and dearly beloved personality, your first President, Mrs. Eileen Garrett presided; it was indeed a great privilege to be there and to see her gallant insistence on attending all the sessions and taking part with such vivacity when most of us knew under what very poor health she was suffering. I am particularly pleased that you, Madam President, her daughter, should ask me again to your meeting when you have chosen as its theme "Parapsychology and Anthropology." In this paper I submit a sequel to my earlier one, and I speak again on parapsychology and religion, but this time on their connection through social anthropology.

Perhaps you may remember that in my former essay I dealt to some extent with the work of the anthropologists. I had been discussing the work of those two great pioneers in the scientific study of religion, both Americans, Edwin Starbuck and William James, and I had regretted that their lead had never been followed up except by the social anthropologists. We know more, I said, about the religious feelings of South Sea Islanders or certain tribes in Africa, such as the Nuer and the Dinka, than we do about those of the members of modern society. I discussed briefly the work of some anthropologists such as R. R. Marett and Emile Durkheim and contrasted their outlook with that of those earlier leaders such as Sir James Frazer who derived all religion from magic, or Sir Edward Tylor who derived it from animism. Marett and Durkheim each, and independently, pointed out an element which was almost universally recognized by primitive peoples, whether called *Mana* by Polynesians, *Wakan* by North American Indians or many other names by various African tribes, an element which, if ap-

proached in the right way, gave primitive man strength, power and encouragement to do things which he would not be able to do without it.

It is from that point that I would now carry forward the discussion. I had been stressing the importance of parapsychology, particularly the study of telepathy, as a contribution towards a rational philosophy of religion. Let me quote a paragraph from that earlier paper which may serve as a summary of that part of it:

If we can get cast-iron evidence that one mind can communicate with another by other than physical means it will at once bring about a revolution in present-day ideas of the mind-brain relationship. It would at once lend plausibility to the possibility that the influence which religious people feel when they say they are in touch with what seems to them to be some transcendental element—a power that affects their lives, whether they call it God or not—may be something within the same field as extrasensory telepathic communication. Could it perhaps be, to put it at its very lowest, that the element that is at the back of all religion might be some extrasensory shared spiritual experience; perhaps some source of spiritual “know-how” which may be tapped by those who may have discovered or learnt the way of making rapport with it—something perhaps like the shared subconscious of Jung? I think myself that it is likely to be something very much greater.¹

You will know from that former paper that I am actively engaged in research into the nature of religious experience. This and the study of extrasensory perception are I believe related to one another in a different fashion from that which I have stressed in the paragraph just quoted. In fact I would maintain that together they constitute one continuous field of man’s psychic life. In my Presidential address to the London Society for Psychical Research in 1966 I expressed this as follows:

I believe that a rigorously conducted programme of psychical research is more likely than any other human activity to overthrow materialism as a widely accepted doctrine, especially if it is broadened, as I think it should be, to include the systematic study of religious experience.²

As I have already indicated, the main activity of my colleagues and myself in this field of research is concerned with the religious feelings of the members of modern society. It has been suggested, and I would not quarrel with the idea, that what we are doing is attempting to prepare a “Kinsey Report” on religion. Our Sunday newspaper *The Observer* published a feature article on our work with this suggestion as its headline and went on to ask, “Can there be such a scientific study of religion? And if so, do we need one?” I emphatically believe that this is just what is needed, and although we

ourselves are more concerned, as I have said, with more sophisticated man, there can be no doubt that it is through the study of the more primitive cultures being made by the anthropologists that a more significant light is being thrown on some of the essential features of the process.

There is another large area of primitive culture studied by the social anthropologists which would appear to be parapsychological in nature, but which, since it lies outside my competence, I shall not attempt to include. However I should just mention it if only to distinguish it from the field I shall discuss: I refer to the subject of magic and witchcraft which no doubt will be discussed by other members at the conference. Professor Sir Edward Evans-Pritchard, who has recently retired from the Chair of Social Anthropology at Oxford, began (apart from his introduction) his great book *Witchcraft, Oracles and Magic among the Azande* with these words: "Azande believe that some people are witches and can injure them in virtue of an inherent quality. A witch performs no rite, utters no spell, and possesses no medicines. An act of witchcraft is a psychic act." Dr. Meyer Fortes, William Wyse Professor of Social Anthropology at Cambridge, emphasizes the importance of such studies with the following striking words:

To appreciate the religious, magical, and mythological beliefs and practices of primitive peoples we must recognize that they are expressions of the common humanity of all mankind. Apart from being far more logically coherent, once the premises are granted, African beliefs about witches are startlingly like those of Shakespeare's day. Sir Isaac Newton held beliefs about occult powers that would seem thoroughly sensible to a modern Melanesian or pagan African, and I do not suppose anybody would claim that he was a savage in his mental development, or inferior in intellectual capacity to the mathematical physicists of today. There are influential sects in our society whose members regard disease as being purely spiritual affliction, and who would die rather than submit to treatment by drugs or surgery.³

I leave the witchcraft, magical side of mankind on one side—religion is something different but nevertheless parapsychological in nature. Evans-Pritchard himself makes a sharp division between witchcraft and magic on the one hand and religion on the other, as indeed did Marett who, as I have said, was one of the first to break away from the one-time dominating view of James Frazer in his *The Golden Bough* where he derived all primitive religion from magic.

Marett's views on primitive religion have been very much neglected by recent writers; perhaps this was largely his own fault because apart from his volume of Gifford Lectures entitled *Faith, Hope and Charity in Primitive Religion*, he produced no *magnum opus* on the subject, but scattered his views

and observations through many papers published in a number of different journals and only brought together from time to time in volumes of essays on various subjects. It is his outlook that I particularly want to discuss. In one of these collections of essays *Head, Heart and Hands in Human Evolution* (1935) he writes:

When it is a question of a more or less definitely religious rite of the primitive pattern, we should be wrong in assuming any consistent doctrine to underlie the performance . . . A play of images sufficiently forcible to arouse by diffused suggestion a conviction that the tribal luck is taking a turn in the required direction is the sum of his theology; and yet the fact remains that a symbolism so gross and mixed can help the primitive man to feel more confident of himself—to enjoy the inward assurance that he is in touch with sources and powers of grace that can make him rise superior to the circumstances and chances of this mortal life.

And now two passages from his Gifford Lectures:

The truth is that, as we have seen, primitive religion is never so far withdrawn from the hard business of real life as to lose touch with it and so to abandon its practical interest. The occasional rite continues to minister directly to the alleviation of critical situations. . . . Yet religious observances of every kind would seem to have an absorbing quality of appeal that causes the participant to feel that for the moment he lives a life apart, is removed to another world . . . This new plane of experience is one baffling to the intellect because the literal, the language of the senses, no longer suffices; but it is apprehensible to the mind as a whole, since on the side of feeling and will the value of the dynamical mood approves itself directly. Herein then, lies the truth of religious symbolism—not in what it says, for it speaks darkly, but in what it makes a man feel, namely, that his heart is strong.

And now to give the ending of this his lecture on Faith:

Whatever, then, may be the final judgement of Ethics, a comparative history of Morals is bound to assume that among the mixed ingredients of his religion the holiness prevails over the uncleanness, since the vital effect is to encourage him in a way of life that has survival value. Thus, anthropologically viewed at all events, the faith of the savage is to be reckoned to him for righteousness.

Let us note the evolutionary significance of his words “to encourage him in a way of life that has *survival value*.” Marett thought in terms of biological evolution. Again and again he demonstrates the universal occurrence of this strength that primitive man gains from his sense of contact with a power that appears to be beyond the self. Religion I believe to be an important biological element, the discovery by man of an extraordinary

extrasensory channel he can open up with some common source of power shared between mankind. It is what I have called in the title of my own Gifford Lectures *The Divine Flame*; it may well be linked with what Jung called the shared or collective subconscious.

This indeed is very close to the view of William James, who in his philosophical postscript to his Gifford Lectures published as *The Varieties of Religious Experience* says this:

If asked just where the differences in fact which are due to God's existence come in, I should have to say that in general I have no hypothesis to offer beyond what the phenomenon of 'prayerful communion,' especially when certain kinds of incursion from the subconscious region take part in it, immediately suggests. The appearance is that in this phenomenon something ideal, which in one sense is part of ourselves and in another sense is not ourselves, actually exerts an influence, raises our centre of personal energy, and produces regenerative effects unattainable in other ways. If, then, there be a wider world of being than that of our every-day consciousness, if in it there be forces whose effects on us are intermittent, if one facilitating condition of the effects be the openness of the 'subliminal' door, we have the elements of a theory to which the phenomena of religious life lend plausibility. I am so impressed by the importance of these phenomena that I adopt the hypothesis which they so naturally suggest. At these places at least, I say, it would seem as though transmundane energies, God, if you will, produced immediate effects within the natural world to which the rest of our experience belongs.

The term "subliminal door" is taken, of course, from that used by F. W. H. Myers, one of the founder figures of psychical research; he discussed the subconscious mind well before Freud, but he called it the subliminal mind, the mind below the threshold (limen) of consciousness. Here indeed is a field which I believe should well be a part of parapsychology, linking it with religion; a field to which the anthropological studies of primitive cultures has much to contribute.

Let me now pass to Marett's other outstanding contribution to theological thought: it concerns the very nature of religious feelings. It may well be objected that I am devoting too much of my paper to the views of Marett. I would plead however that I am not, as indeed you must all know, an anthropologist myself, or at least by training, but have a very real interest in their methods which I am attempting to apply to modern man; I am trying in this essay to show how I think the three subjects of anthropology, parapsychology and religion are related and to my mind, better than anyone else, Marett points the way. Unashamedly I am letting Marett give a good part of my paper for me, for I fear his voice is being forgotten. From

his study of primitive religion he has presented us with a better knowledge of the origin of what is now called the numinous.

The term numinous which has become so familiar to theologians was introduced by Dr. Rudolf Otto in his celebrated book *Das Heilige*, translated as *The Idea of the Holy*, to designate, not, as is often implied by later authors, man's sense of the Divine presence, but actually a part of the reality and character of that Presence. It is now passing from being a technical theological term into more general parlance so that it is well that we should be quite clear as to its meaning; it is tending to be used more as an adjective than as a noun, as for example in the expressions "the numinous sense" or "numinous emotions." When it is so used we should be careful to remember that this is not really the more essential meaning which Otto intended; he used it as a noun to denote what he emphasizes must be regarded almost as an objective reality and not merely as a subjective feeling in the mind. He uses the word feeling here not as equivalent to emotion, but as a form of awareness that is neither that of ordinary perceiving nor of ordinary conceiving; in fact it is clear, although he did not use the expression, that he thought of it as a form of extrasensory perception. For Otto the sense of the holy—the numinous—is something felt in the deepest religious emotion which is distinct from faith, trust and love; it is an element by which those who experience it are profoundly affected. The greater part of Otto's book is devoted to a detailed analysis of the different components of this feeling; let me quote a brief extract:

Let us follow it up with every effort of sympathy and imaginative intuition wherever it is to be found, in the lives of those around us, in sudden, strong ebullitions of personal piety and the frames of mind such ebullitions evince, in the fixed and ordered solemnities of rites and liturgies, and again in the atmosphere that clings to old religious monuments and buildings, to temples and to churches. If we do so we shall find we are dealing with something for which there is only one appropriate expression, "mysterium tremendum." The feeling of it may at times come sweeping like a gentle tide, pervading the mind with a tranquil mood of deepest worship. It may pass over into a more set and lasting attitude of the soul, continuing, as it were, thrillingly vibrant and resonant, until at last it dies away and the soul resumes its "profane," non-religious mood of everyday experience.

In passing, let me call attention to the passage in the part just quoted "in the atmosphere that clings to old religious monuments and buildings, to temples and to churches." Could there be something parapsychological here akin to psychometry? It is most likely, I think, that different people experience the numinous in different ways according to their varying

psychological makeup. One of the components Otto gives prominence to is the "element of awefulness"—the sense of mystery—which for some people appears to merge into a sense of dread or fear like the eerie feeling that may be produced by reading a particularly good ghost story late at night.

Otto, after the publication in 1917 of his famous book *Das Heilige*, was, no doubt rightly, regarded by many as a theological genius; but some of the kudos I believe should go to Marett. Here is Marett, in a paper published in 1900, describing the sense, the idea of the Holy as he sees it among the more primitive peoples. He asks some questions regarding the general character of phenomena which might be classed together as "spiritual" and continues thus (I am slightly abridging his text):

"Now by way of answer to these questions . . . I have no brand-new theory to propound. The doctrine I now wish to formulate . . . is one that in a vague and general form constitutes a sort of commonplace with writers on Religious Origins. These writers for the most part profess . . . to discern . . . a certain Religious Sense . . . whereof the component 'moments' are Fear, Admiration, Wonder, and the like, whilst its object is broadly speaking, the Supernatural. Now that this is roughly and generally true no one, I think, is likely to deny. Thus, to put the matter as broadly as possible . . . we must I think . . . admit the fact that in response to, or at any rate in connection with, the emotions of Awe, Wonder, and the like, wherein feeling would seem for the time being to have outstripped the power of 'natural,' that is reasonable, explanation, there arises in the region of human thought a powerful impulse to objectify and even personify the mysterious or 'supernatural' something felt, and in the region of will a corresponding impulse to render it innocuous, or better still propitious, by force of constraint, communion, or conciliation." ⁴

Does that not express essentially the main core of Otto's idea of man's recognition of what he calls the numinous? I agree that Otto deserves the credit for the enlargement of the idea and for devoting a whole volume to its discussion; nevertheless I think he should have given more credit to Marett than his mere few lines in a footnote referring to some of his own papers published in 1910. He says "I find in more recent investigations, especially those of R. R. Marett and N. Söderblom a very welcome confirmation of the position I there maintained." It was, of course, the other way about. Otto was in fact confirming Marett's views of 1900; in the same footnote Otto goes on to say that Marett "comes within a hair's breadth of what I take to be the truth."

Here then is another field where parapsychology can, I believe, make an important contribution to the scientific study of religion by taking part in anthropological investigations among more primitive peoples of what Otto in his more sophisticated theology calls the *mysterium tremendum*, and which

Marett has so clearly shown to be a fundamental feature of religion in its simplest form. It, the numinous, would certainly appear to have an extra-sensory element. We want more anthropological studies of religious feelings like the ones which make up those two classical volumes *The Nuer Religion* by Professor Sir Edward Evans-Pritchard and *Divinity and Experience: the Religion of the Dinka* by Dr. Godfrey Lienhardt, but ones made by those who have also a sympathetic interest in and a knowledge of parapsychology. My paper is in fact no more than an appeal for a parapsychological approach to primitive religion: an approach which I believe will yield rich dividends in the understanding of the roots of religion as a whole.

Others in the conference will, I am sure, be discussing the many accounts one has heard or read of supposed telepathic communication among members of primitive tribes and I hope we may have some actual parapsychological observations presented to us. Perhaps I may be allowed as a footnote as it were, to end my paper with a suggestion which I have had in my mind for a long time. It is this. Is it possible that the beating of the drums which is said to accompany what is often called the "bush telegraph"—the sending of messages over considerable distances—may serve the purpose of what Whately Carington in his book *Telepathy* has called a K object or K idea?

I am sure you will all be familiar with his association theory of telepathy; briefly for the few who may not know of it I will give an almost caricature summary of it. Suppose I want to communicate an idea telepathically to you at some distance: Carington suggests that we may get better results if we each have the same sort of object in front of us—say an inkpot on our desks—and when I want to transmit a thought I shall associate that thought in my mind with the inkpot and you who are trying to receive it will think of the inkpot too and then, so Carington believes, you may be more likely to pick up the thought which I am at that moment associating with my similar inkpot. The inkpot here is a K object and the thought associated with it, i.e. to be transmitted, he calls the "O" idea. Why should this work? Carington replies to this question on p. 58 of his book ". . . we always take it for granted that your subconscious and mine are separate. But suppose they are not separate. Suppose we have a common subconscious. Suppose we can both draw on a common repository, so that associations formed by me are effective for you. Then presentation of K to you *will* tend to draw up the idea O, and you *will* be more likely to think of O than if K and O had not been associated in my mind."

My speculative suggestion will by now be obvious. It is I think unlikely that the actual beating of the drums are transmitting a message in code, but is it not just possible that their rhythm may serve the same associative

purpose as the K objects suggested by Carington? Could not this be the subject for an experimental study if the tribesmen could be induced to cooperate—possibly by varying the rhythm of the drums? I hope this conference may lead to a vigorous experimental approach to parapsychological anthropology. Could not the Foundation perhaps sponsor special expeditions for this purpose? Surely it is time that a scientific study was made of the alleged telepathic communications among the reindeer herding Lapps reported from time to time. Very soon it may be too late; one hears that their culture is rapidly breaking up.

REFERENCES

1. HARDY, ALISTER, "Parapsychology in Relation to Religion," *Parapsychology Review*, May-June, 1971, pp. 3-6.
2. ———, "Psychical Research and Civilization," *Proceedings of the Society for Psychological Research*, Vol. 55, Pt. 199 (1966), p. 3.
3. FORTES, MEYER, in: *The Institutions of Primitive Society* (Oxford: Blackwood, 1954), p. 88.
4. MARETT, R. R., First published as "Pre-Animistic Religion" in *Folk-lore* (1900), pp. 162-182. Reprinted in volume of essays: Marett, R. R., *The Threshold of Religion*, 1909.

DISCUSSION

SMITH: I'm delighted to hear these references to my old professor, R. R. Marett.

HALIFAX-GROF: I'm very struck by this presentation. I think it is indicative of what is happening in the Western world with regards to the diminution of a meaningful traditional religious activity and the emergence of alternative systems. We often hear talk of the so-called encroachment of mystical religions on our technological world: the interest in mysticism in general and the ecstatic branches of the Christian church from pentecostalism to mystical forms of Catholicism, a new reverence for St. Theresa and other Christian visionaries, the popularity of Hinduism and Buddhism, and so on. To me, as an anthropologist working in the areas of psychiatry and religion and then lately having moved into the area of psychedelic psychotherapy, I have found an important parallel in the presentation that you have made today and the work that my husband and I have been doing with individuals dying of cancer. I would very briefly like to share it with you. In our work with dying cancer patients, one of the things that we attempt to do is prepare the dying individual for an unusual (or expanded) state of consciousness induced by LSD-25. This state is in

many ways comparable in form and content to the visionary states described by religious mystics and prophets. I know that many of you are familiar with my husband's work and the maps of the unconscious that have evolved from his many years in research with LSD and other psychoactive substances. I have found these "maps" interesting because of their relevance for the study of religion and anthropology. As a result of this work with psychedelics, one of the things I have become acutely aware of is that our religions in the West, most of them, no longer have rites of passage, be they occurring at the birth of a child, at puberty, at marriage, at aging, or at death that indicate a dramatic change in an individual's psycho-social and physiological status. These rituals have lost their significance in our contemporary world, but, in fact, we know that cross-culturally such rites have not only a survival value for culture bearers but they seem to have similar patterns in terms of their deeper structure. The structure or configuration to which I am referring is the experience of death and rebirth, of annihilation and transcendence. This experience can be invoked in various ways, either through the use of external cues and/or by activating the unconscious so that it emerges on the screen of consciousness. In the latter situation (and probably in the former), such an experience bears a similarity to the events of death and being born or "reborn." In LSD sessions, one of the most common occurrences is this death/rebirth experience, and, oddly enough, this is what we see in religions all over the world, particularly in the mystical branches. That orthodox religion and our society in general have more or less drained the juices out of such ritual activity has a very dramatic effect on our culture. This I believe has given rise to the emergence of so many mystical religions in the West. And this, of course, is why the treatment of dying patients with LSD-assisted psychotherapy is necessary. Because what rites of passage or schools for dying are essentially saying is that a human being can die, but he will transcend, he will be reborn; we don't have that school and the cognitive inputs that one experiences in a rite of passage. Recently, we were at a meeting talking about the revitalization of ritual; perhaps this is one thing we should attempt to do—revitalize our rituals for their survival value or create contexts in which new ritual forms can emerge.

HARDY: Thank you. I'm delighted with everything you said. I do want to say that I was shocked to hear that Walter Pahnke died. I visited his laboratory in Baltimore the last time I was in America and it's a very great shock because he was at the last Parapsychology Foundation conference I attended. I'm so glad to know that your work is very much along those lines.

HALIFAX-GROF: Well, my husband assumed Walter's position.

KREITLER: There is no question that the need to believe is one of the strongest human motives. Still I feel obliged to introduce another feature, which seems to me imperative to be considered whenever we speak about the growing interest in parapsychology. About seventy years ago, the very Pavlov who is known as the discoverer of the conditioned reflex, made his greatest discovery. He discovered the orienting reflex and he himself was so excited about it that he said, "I discovered the root of science, art, and all human mental activities." The orienting reflex, as you know, is a basic response which appears whenever a new stimulus or a relevant stimulus is shown. Since then, the work of Luria Sokolov, Anokhin in the East, Berlyne, Lynn, and our own research in the West, established beyond reasonable doubt that the orienting response is a basic reaction of human beings and higher animals, deriving from a primary need to get new and relevant information. Therefore I would claim that whenever we speak about the growing interest in parapsychological phenomena, we should remember that humans are not only driven to cherishing beliefs but also to gathering information. They need to know. But this does not reduce their need to believe, especially where knowledge cannot be attained. Besides eagerness for knowledge, craving for belief drives a lot of researchers into the field of parapsychology.

HARDY: Yes, I fully agree with what you say. I would like to say that the very idea of believing has a biological interest. You know Waddington's book, *The Ethical Animal*. It's very important, of course, in the new phase of evolution which is taking place by the inheritance of acquired knowledge: the transmission of knowledge to the young. As Waddington points out, it's extremely important that the young should be believers and so selection has favored the young who believe what they're told. They rebel against it later, but it's an important biological factor, I think. Belief is important.

DINGWALL: As I thought, Sir Alister Hardy's paper is absolutely fundamental and is at the basis of this whole conference: the relation between anthropology and parapsychology. My conclusions are precisely the opposite to those of Sir Alister Hardy. I do not believe for one moment that what he thinks is just biological, this fundamental wish in mankind which is equated with some form of God and some form of paranormal experience. I do not believe in it and I think that the fundamental element is fear, fear of the unknown. Fear made the gods. Now if that is true, and of course it's a thing that we have to discuss, if that is true, it is absolutely fundamental to our subject. But not only do I think Sir Alister Hardy's point of view and his work is of enormous importance for the modern world, but I think its influence is absolutely deadly. It is a return to assisting to build the

structure of superstition from which mankind has emerged through centuries of effort. The endeavor to bring us back to some form of supernormal power or force in the world which we call God, or any other name that you like, has a danger in that it is now fortified by an appeal to parapsychology and occultism. In the old days, I knew Sir William Barrett extremely well. We had long conversations. He was a believer and he said to me almost in the words of Sir Alister Hardy, "Parapsychology (in those days psychical research)—psychical research is a handmaiden to religion." Precisely. If we can bring in occultism now, to return to what I consider the superstitious beliefs in religion, then we have a new element in the modern world which is going to push us further back into the Middle Ages than we are already. Because already Europe is wallowing in a mass of occult superstition, growing every year in the modern world, and why? Because under our very eyes we can see Western civilization, the technological civilization which has been built up from the rejection of occultism in modern life. We don't have supernormal powers working in our radio sets. We send for the mechanics except now when we now send for the parapsychologists. The result is that we have occultism joining with religion and put in this superb way by Sir Alister Hardy in a way which will appeal to thousands of intellectual people in the modern world who don't realize what modern occultism really is and who know very little about the emergence of mankind from the morass of superstition. All of which I suggest is based not only in our feeling of God, not only in the interpretation of the ecstatic experience as something which is spiritual, but which is entirely based on fear which we can see in very early man. So, not only do I disagree fundamentally with Sir Alister Hardy's point of view, but I think that it is a most dangerous point of view and should be resisted to the utmost.

HARDY: I don't mind. I welcome Dr. Dingwall's criticism. Of course, I reject the occult. The occult has nothing to do with real religion. I'm talking about something very different from the so-called occult and quite a different form of religion. It's true, fear has played a part in religion as it has in other activities of man, but the religion I'm talking about is one, as I say, based upon filial love. It is a religion of love. Something quite different from what you're talking about, concerned with fear.

BHARATI: I heartily disagree with both Sir Alister Hardy and Dr. Dingwall, but you're in good company because I also disagree with Rudolf Otto and Jacques Maritain and Frazer and Tyler for very different reasons, most of them being taxonomical. You know, when you talk about religious experience the way both of you do, and the way Marett and the older founding fathers of anthropology did, they imposed their own armchair

categories on other societies. Now it just isn't that simple. Of course, religion doesn't go away even if its origin were proved to be fear. Religion doesn't go away even if it is sex. You have overrated the cognitive part of it, thinking that once we gain knowledge of things which we didn't have knowledge of, religion will disappear. Well, it didn't. You know, when the spacemen came back from the moon the first time, they chanted Genesis with a Texan accent. But what really happens now, and modern anthropologists are quite worried about it: when you talk about religious experience, be cognizant of who is talking. As modern anthropologists, we no longer impose our own categories on the study of religion or any other experience, but we try to analyze what we call the "emic corpus." In other words, we see what the native (who may be a British gentleman who is a Protestant, or who may be a Zambian witch doctor) does and says, and then see what this corpus generates. Now, of course, there is fear of God in many faiths, but not in all religions: in Buddhism there is no divinity at all and in other religions, divinity is not viewed as a father, but as a daughter, for instance, or as a black woman (which I think is very attractive). So in other words, what you gentlemen are really pointing out are in fact segmentary ways of viewing the religious situation. Indeed there is fear at the base of many things, but that doesn't make it go away, and there is love at the base of many religions, but that also doesn't exhaust the religious experience of mankind. So that basically what we should try to do, when you talk descriptively, is to analyze what people really *say* when they're saying it in a religious discourse, not what you think they *should* say.

HARDY: Marett whom I quoted may perhaps be called an armchair anthropologist, but the greatest studies of primitive religion are those of Evans-Pritchard and Lienhardt on the Nuer and the Dinka, made when they actually lived with these people.

BHARATI: Both Evans-Pritchard and the other people still imposed their own categories on their research. They were reductionists. They thought there *must* be some common source. Some people might have thought it is of a biological nature, but that I think is no longer even discussed. But when we talk about experiences which are not experiences that could be subsumed under a scientific umbrella, then what we can only do is to see what people mean, not imposing our own psychological categories on them. To talk about fear or Eros, all those are Freudian or Jungian categories which the native doesn't talk about. As for the talk about symbols, one sure way of not understanding oriental religions, especially Hinduism and Buddhism, is to talk about symbols. *There are no symbols*. It's a Jungian armchair concoction. Jung had symbols in mind where he talks about archetypes,

about father and mother archetypes. The linguistic analyst will tell him that it's just not so. All the mother archetypes in the world are *names of containers*; that's all there is to it. All the father archetypes are names of elongated objects, nothing mysteriously sexy.

DEVEREUX: I radically question Konrad Lorenz's studies. If Lorenz were right, all dogs would behave like Lorenz's dogs. My dogs have never behaved that way and I flatly assert that the research of Lorenz on dogs sheds a great deal of light on Lorenz's psychology, but not on that of dogs. And I definitely wish to state here that in one controversy, Lorenz has deliberately, cold-bloodedly distorted his own data in trying to challenge the conclusions I have drawn from them and you can tell it to Lorenz when you see him.

HAYNES: My name is Renée Haynes, and I wonder if we could have some definitions. It would be so nice to know what Dr. Dingwall means by "occultism," which I should have thought was the study of the unknown in a rather aware state of mind. It's quite different from parapsychology which aims to establish fact. The other thing is, of course, that there is one form of religious experience which was being alluded to but not yet touched upon and that is the one which springs originally neither from fear nor from love, but from the wish (because nothing is unmotivated) to make sense of life and what goes on. A third definition I should like is what you mean when you talk about a personal God. Do you mean an image you can think of with a white beard, or do you mean a force capable of thought planning as purpose?

SMITH: A final comment from you, Sir Hardy.

HARDY: Well, I don't know that there is a need for a final comment. I think I said really all I want to say.

OCCULTISM IN ŚĀKT RELIGION

JAMUNĀ PRASĀD

The general character of Śāktism, which is considered to be a licentious type of Hinduism, is fairly well-known but comparatively little studied. It is believed that this sect is older than the age of Buddha, if not pre-vedic; but in its present form it seems to have gained popularity among the population of Bengal and Assam about the fifth century A.D. From Bengal it spread to the north and south of the country between the fifth and ninth centuries. Though it is not positively hostile to Vedās which were the core of Hindu religion, it propounded that the precepts and rituals of Vedās were too difficult and cumbersome for Kaliyuga (present age) and hence an easier doctrine was needed. Moreover Vedās were not accessible to śudrās (low caste) and women, so it was felt that there should be a doctrine which may be accessible to all without prejudices of caste, religion and sex. This prepared a flourishing ground for the prevalence of Śāktism and its doctrine of Tantra. There are documentary evidences in Hindu scriptures that Tāntrism of Śākts is best suited for Kaliyuga—the present era. Srimadbhāgavata says, “Keśava assumes different forms in different yugas and should be worshipped in different ways, and that in Kaliyuga, he is to be worshipped according to Tantra.” Kulārṇava Tantra narrates, “For each age a suitable Śastra is given—namely in Satyayuga, Śruti; in Tretā, Smṛti; in Dvāpar, the Purāṇas and in Kaliyuga, the Tantra.”

It is said that Buddha himself worshipped Śakti in the form of Tārā in his later life to attain salvation. A. K. Maitra in his introduction to Tārā Tantra states that Buddha and Vaśiṣṭha were Tāntrik munis and Kula-Bhairvās. But the influence of Śākt philosophy and its practices on Buddhism was largely felt in its later period, i.e., second half of the eighth century and through Buddhism it went to other countries like Tibet, China, Burma and Nepal. By and large the Buddhists were converted to Śākt philosophy and followed Tāntrik practices. Mahāyān, who attained Buddhahood, was himself initiated to Tantra. Mahāyān Sūtra contains a chapter on Tantra, on worship of Tārā and Tāntrik practices. It opens with

a dialogue of a god with a goddess. Many of its topics are essentially Tāntrik. Buddhist mythology and mysticism are freely mixed with that of Śākt. Buddhism borrowed meditation on corpses, restraint of breathing, inducing of trance from Tantra. Buddhists also advocated worship of women but their emphasis on sexual union and some other offensive practices led to corruption in Buddhist monasteries which brought Śāktism in disrepute. Śākts are spread all over India and in some other countries also, and they wield considerable influence in Bengal, Assam, Kerala and Kashmir.

Śākts are the worshippers of the active female principle: Śakti, the wife of Lord Śiva whom they consider the creator of the universe. She is Jagadambā, great mother of the universe who is worshipped in different places under different names: Kālī, Durgā, Chamuṇḍā, Tārā, Devī, Pārvatī, Chandī, Kālikā, etc. Śākts believe in the popularized version of Sāṅkhya philosophy of the union of the soul (Puruṣa) with the primordial essence (Prakṛiti). They regard the self-existence of Being as not only single, solitary and impersonal, but also inactive. Once it becomes conscious and personal, it acts through the associated female principle which is conceived to be possessed of a higher degree of activity and personality. Śakti is considered to be the energy of the supreme, (Śiva and Śakti are one) who is to be worshipped to attain Mokṣha (Salvation) and union with Brahman.

Śakti cult is no new innovation. Glimpses of it are found in all the Hindu scriptures—Vedās, Purāṇas, Śrutis, Smṛtis wherein worship of Devī is advocated. Prof. de la Vallée Poussin, on the basis of his observations, concluded, "There is a base common to the Veda and Tantra. The Mahābhārat contains hymns in the honour of Devī. Srimad Bhāgawata provides worship of Umā. The Mārkaṇḍeya Purāṇa narrates the greatness of Devī. The autumnal Durgā Pujā is mentioned in many Purāṇas. Vārāh Purāṇa says, "He who worships Her ever worships Him. He who worships the Devīs pleases Rudra (Śiva) and becomes for ever Siddha." In the Atharvaveda, there is the Sarasvatī Sūkta, in the Yajurveda the Laxmī Sūkta and in Ṛgveda the Devī Sūkta. The famous Śakti Stotra "Hymn to Śakti" named Ānandalaharī is everywhere known to be the work of Śankarācārya, who was a Śaivite. Worship of Śakti (female principle) is not limited to India, its religion and philosophy, but was prevalent in Egypt in the form of "Militta," in Greece in the form of "Sivali," in Phoenicia and African countries by different names. Muslim Sādhana and certain esoteric religious practices of Roman Catholics and Greek churches is based on the groundwork of Tantra. Tāntrik Sādhana is manifest in Confucianism and Shintoism also.

Śākts are essentially monists but they do not deny dualism. They realize the reality and existence of this world. According to their philosophy, the Brahman (Supreme) is reached through its universe. Thus Śāktism takes into its orbit both dualism and monism and by its Sādhanā and spiritual knowledge, generated thereby, it provides the means whereby their anti-omies are resolved.

Śākt religion has drawn heavily upon Āryan (Hindu) mythology though many of its tenets have been taken from non-Āryan cult. Many of the rituals and Sādhanā practices have been taken from Hindu religion. Śākt religion has many common points with Vedānta philosophy but is different from its orthodox system. It adds a fifth caste, i.e., Sāmānyas (common hybrid caste from the others) to the Vedic four and follows only two Āśhramas (state of house-holder and ascetic) instead of four of Vedānta.

Śākt religion and its practices are secretive in nature and are not told unless one is ceremoniously initiated by a Gurū (teacher). Before initiation, one remains "Paśu," who after being initiated passes through various stages of elevation, viz., Vira, Siddha, Kaulā and Divya. Divya is one who has attained self-realization and unison with Śakti, the highest heavenly state. Bhairavaham, Śivoham (I am He). He becomes the Śiva himself.

Śākts generally divide themselves into two major sects: Vāmamārgīs (leftists) and Dakṣiṇamārgīs (rightists) according to whether they attach greater importance to female or male principles respectively. Though both are worshippers of Śakti they differ in rituals and Sādhanā. Dakṣiṇamārgīs who are nearer to Vaishṇava Śākts are free from sensuality and worship their deities in public, while Vāmamārgīs who mostly inhabitate the Assam and Bengal regions follow the foul secrets of Tāntrik cult. They acquire siddhis for self-exaltation or for annihilation of opponents: a practice which has brought a bad name to this cult. One of the practices for annihilation of opponents is to wrap an earthen pot with a red cloth, and with a burning candle inside it make it travel to the opponent. The pot on reaching the destination calls out his name. The opponent, as soon as he sees the pot, vomits blood, which usually proves fatal.

Śākt religion has been much criticized and termed as debased Hinduism for its sacrificial nature and for its use of Panch Makārs, five essentials, viz., Madya (wine), Māmsa (meat), Matsya (fish), Mudrā (which ordinarily means rituals, gestures with fingers, or postures of body, but here used in its technical sense connotes delicacies of parched grain), Maithuna (sexual union). Śāktism is a religion which advocates offering sacrifices in order to invoke and adore Śakti. Sacrifices of bulls, buffaloes, etc., and at times of human beings, especially by Vāmamārgīs, are frequently heard of. The Dakṣiṇamārgīs and Buddhist Śākts prohibit sacrifices of animals and

human beings although they believe in offerings of materials and flowers. Woodroffe, in defense of the five M's, opines that they are to be used only in the circle of the initiated and only after having been purified by sacred formulae and ceremonies. Just as poison which is fatal becomes medicine in the hands of a doctor, similarly when used under the guidance of a Gurū (teacher), these become nectar. Any abuse of these five essentials is not to be tolerated. Even in the vedic era the use of wine and meat was a common practice. Animal sacrifice was one of the practices on religious and ceremonial occasions. Perhaps under the influence of Buddhism and Jainism these were prohibited. Śākt religion advocates sexual union only with one's wife. There are many Śākts even in Vāmamāragīs who do not take meat and lead lives of celibacy although Tantra tells that one cannot attain self-knowledge (Mokṣh), the highest goal of a Śākt and cannot perform worship without them. These bestow Bhukti (enjoyment) and Mukti (salvation).

Śākts believe in the doctrine of Tantra which is a later development of Purāṇic creed. Tantras are the most sacred and secret religious treatises of Śākts, the secret doctrines which are not to be communicated to any uninitiated person. These, besides elevation to divinity, relate to acquiring siddhis of paramount and paranormal importance. In fact the tantras are considered to be the fifth Veda in Śākt religion.

Occultism, of which Tantra is a treasure, signifies the doctrines of hidden and mysterious practices and rites, and extends its meaning to cover the realms of magic and mystery, marvel and miracle of every kind. In its broader sense it embraces so vast a field of varied phenomena that it has all the appearance of being a vague generalization of no scientific value. In a restricted sense the term is however being confined to open verifiable human knowledge and to paranormal phenomena which are being experimented with by scientific methods. Hence many occult phenomena which till recently were dismissed as unworthy of serious consideration, are now being considered fit for careful investigation. The scientific research work being done on psychophysical and psychical phenomena promises to offer valuable clues for better understanding of the unknown dimensions of the human mind.

Tantras are said to have emanated from the holy mouth of Lord Śiva and are generally in the form of a dialogue between Śiva and his Śakti, Pārvatī, the form in which Satī his spouse reappeared after her death at Dakṣa's Yajña. According to Purāṇic literature, Satī, though not invited, went to attend the Yajña of her father (Dakṣa) in spite of counseling from Śiva not to do so. There she could not tolerate the insult and disrespect shown to Lord Śiva, and threw herself in the sacred fire from which she

reappeared in the form of many Śaktis. In order to save himself from the Wrath, Dakṣa had to worship Śākti. The dialogues between Śiva and Śākti are either called Āgama where Śiva answers Devī's questions revealing the doctrine and observances to be followed, or Nigama where Devī is the teacher and Śiva her disciple. The ultimate aim of these teachings is the union with Śākti, but the contents of these teachings which are in the form of tantra are really magical and mystic.

A complete Tāntrik philosophy centers around four main themes: (1) Jñān (knowledge): includes philosophical doctrine; knowledge of occultism, i.e., knowing the secret powers of letters, syllables, yantras (diagrams), etc.; (2) Yoga-awakening of Kundalini: piercing the six cakras in order to acquire magical powers; (3) Kriyā, i.e., instructions for making idols and consecration; and (4) Caryā (conduct), i.e., rules regarding rites and festivals, and social duties. No single tantra deals with all these four branches and hence they are complementary to each other, containing a medley of philosophy and occultism, mysticism and magic, and rituals and ethics. In tantras, one finds the highest and loftiest ideas and profound speculations side by side with the wildest superstitions and occultism.

Tantras are said to be sixty-four in number, but many of them are not known. A great deal of Śāstra has disappeared. Most of the tantras which survive and which are still numerous are in manuscript form. The occult portions of tantras are extremely rare. Even John Woodroffe who endeavored to procure the manuscript of the second portion of Mahānirvāṇ Tantra did not succeed in getting it. However, some of the outstanding tantras are Mahānirvāṇa (the great liberation), Kulārṇava, Mantra, Yogini, Prapancasara and Tantrarāja Tantra. Mahānirvāṇa is the most popular and widely known tantra in which we see the best aspect of Śāktism. It speaks of Brahman, the highest divine principle, the eternal force (Śākti) out of which all things have been created. Śākti is the embodiment of all the gods and all the energies and therefore all the philosophical concepts to which language has been assigned are in the feminine gender. She is the Creator, Preserver and Destroyer of the world. Mahānirvāṇa Tantra attaches great importance to mantras, yantras and worship in the invocation of Śākti. It describes in detail how the goddess Śākti is to be worshipped to be in union with Her. It has also the description of the sacraments (manual of morality) and different stages of elevation of mankind: Paśu, Vira, Siddha, Kaulā and Divya. The goal, i.e., liberation, can only be achieved through the practices of this tantra.

Kulārṇava Tantra, which is mostly practiced in the eastern region, teaches about six forms of life (ācāra), viz., Vedācāra, Vaisṇavaācāra, Saivaācāra, Dakṣiṇācāra, Vāmācāra, Siddhantācāra. These are an intro-

duction to Kulācāra which leads to Brahma: Jñāna (knowledge of Brahman) and liberates from sufferings and leads to salvation. Each of these ācāras is more excellent than that which precedes them. Of these ācāras, the first three are included in Paśubhāva, Dakṣiṇācāra is midway between Paśu and Vira, Vāma and Siddhānta are in Virabhāva, and Kulācāra, although it is in Virabhāva attains in its highest stage Divyabhāva. Since no one can fully observe the rules of Vedaācāra, Vaishṇavācāra and Śaivācāra in the present age, hence only Tāntrik rites are said to bear fruits. Kulārṇava Tantra is based on yoga (awakening of Kundalini Śakti: piercing the six cakras) which helps in acquiring innumerable supernatural powers, as well as Bhoga (enjoyment), but only for those who have purified their minds and have gained control over their senses. It describes the worship of Śakti with yantras (diagrams) which bring psychokinetic powers (Kundalini Yoga), and the union with the great mother. A part of it deals with magic and occultism.

Another important tantra is Prapanāsāra Tantra which is ascribed to Śankara-Śiva. It literally means "expansion," hence it is the Essence of Universe. The work begins with the account of the Creator and also with potency of occult doctrines of Kundalini and mantras. Mantras are considered to be very efficacious to attain "Siddhis" and paranormal powers by Sādhaks. As an atom is the source of great energy, so the mantras are the source of self-purification, self-knowledge, worship and Sādhana and supernatural powers. Even gods, demons and demi-gods, compelled by mantras, come to the sorcerer who may perform miraculous feats through them. Mantras possess subtle powers of action on the spiritual, mental and physical planes of existence.

Tantrarāja Tantra, the king of tantras, deals with Śriyantra, the famous diagram which consists of nine triangles and nine circles cleverly drawn one within the other and each one of which has a special mystical significance. Śriyantra comes into being when the Supreme Śakti of Her own will assumes the form of the universe and sees Her own being. By meditation with the aid of Śriyantra one attains knowledge of the unity, i.e., the knowledge that everything in the world is one with the Devī. It deals with various kinds of tantra rituals and meditations on various forms of Devī.

It will thus be seen that Tantra, the most secret and sacred scripture of the believers of Śakti cult, is full of mysticism and occultism; the efficacy of which is realized by those who practice it. It contains rich material of paranormal importance and is said to bestow superhuman and divine powers by the force of its own mantras, yantras, worship and Sādhana. Destruction (Maraṇ), driving away (Ucchāttan), establishment of control over persons or things (Vaśhīkaraṇ), captivating (Sanmohan), arresting

forces of nature (Stambhana), causing antagonism between persons (Vidvesaṇa), curing and helping power in diseases, misfortunes and dangers (Svastyana), and such other powers are supposed to be acquired by Tāntrik practices. It is claimed that Tāntriks, while still living in this mortal world, can obtain direct visions of super-sensual activities of the world of Devas through the potency of mantras. Swāmi Rāma Krishṇa Parām Hans was a worshipper of Mother Kālī in his initial stages of Sādhanā. He was told about Vivekānanda by Śakti who lured him to be his disciple.

Tāntrik literature is full of rites, mantras, ceremonies, yantras and Sādhanā of occult significance. Tāntrik worship leads to acquiring of various "Siddhis" which have rich and verifiable psychical material.

The special virtue of Tantra lies in its mode of Sādhanā. The object of Tāntrik Sādhanā is to merge the self (Puruṣa) into the universal (Prakṛiti). Liberation, it is believed, can be achieved by worshipping Śakti who raises the Sādhaka step by step from the most external belfry, to the innermost Tabernacle of Mother. Tāntrik Sādhanā attaches special importance to Gurū (teacher) and can only be performed successfully and effectively under his guidance. It is the Gurū who prescribes different forms of worship and different aspects of Divinity to initiated Sādhaks of different temperaments. Tāntrik Sādhanā first expurgates the physical and mental impurities so as to be susceptible to the Divine Light within. Concentration, meditation, rituals and rites, worship and communion are the principal features of Tāntrik Sādhanā. It attaches special importance to the knowledge and use of Bījas (mystic syllables), mantras, yantras and five essentials. Mantras are of paramount importance as they help the Sādhaka to ward off evil spirits and other obstacles in Sādhanā. Siddhis, occult powers, control over spirits and deity come from constant repetition of mantras. They help in awakening the Kundalini and superhuman Śakti. By intense Sādhanā the Sādhaka attains mystic powers and frees himself from the chain of Karma and his onward progress continues, until he merges himself with the Supreme.

Tantras are encyclopedic amalgams of elements of varying character and extend from the doctrine of a lofty speculation to practices through which occult powers are attained. They are the repository of esoteric beliefs and practices. The practice of trance helps the Sādhaka to possess magical powers. Restraint of breath gives mastery over thoughts and body which together with mantras and yantras give him various psychokinetic powers. Mantras are capable of developing the latent faculties of mind and psychic powers. Talismanic spells give powers over ghosts and spirits who haunt places such as cemeteries. But these esoteric and mysterious teachings can

only be fully understood through personal experiences which are the practical fruits of Sādhanā.

It is claimed that practice of tantra not only leads to acquiring of paranormal powers but enables a siddha to transfer his powers to others. Pt. Gopi Nath Kavirāj, who is a follower of Devī cult, in his memoirs narrates an incident where a Tāntrik from Assam transferred his powers to a boy of fourteen years of age. It provided the boy, Jyoti (pseudonym), the ability to go out of the body and have astral travels. Once during his astral travels the boy went to a Kālī temple in the hills which was familiar to him. It revived memories of his past life and he was able to know that in his previous life he used to live in this temple and was a follower of Śakti. Jyoti demonstrated his ability to go out of the body at will before Mrs. Annie Besant and recorded his experiences during astral travels. Bhakt Rām Prasad Sen and Vamakshepa have been outstanding Tāntriks of Bengal. S. K. Bandopadhyaya in *Tārāpīth Bhairab*, biography of Vamakshepa, has described many incidents of paranormal significance. Through his occult powers he granted long life to a child of one of his devotees, all of whose other children had died in infancy. Maharāja Rāmeshwar Singh of Bihār who had Sir John Woodroffe initiated to Tantra was himself a great Tāntrik and he is said to have changed the direction of the current of the holy Ganges. There are many renowned Tāntriks still living in India such as Swami Ji, of Pitāambarapīth (Datiā). Madhya Pradesh is said to foretell correctly and accurately future events of national and international significance. Pitāambarapīth (Datiā), Shyāma Āshram (Patna), and Siddha Āshram (Unnao) are the seats for the disciples who wish to be initiated to this sect.

As with other Tāntrik practices, Tāntrik medicine is equally mysterious. Tantra chemistry discovered ages ago many truths, some of which were discovered by scientists much later. It claims to be the first medical practice in the world to use mercury, snake poison and metals as medicines. Tantra claims to provide other curative practices. Here we find what may be called a science of psychophysical culture which renders the physical body obedient to the will and thus by certain postures not only enables it to ward off and cure diseases but also to control the mind by the use of mystic syllables, mantras, diagrams and amulets (Kavacha). There are documentary evidences of Tāntrik cures of serious and incurable diseases. Vamakshepa, the renowned Tantrik of Tārāpur, Bengal, could cure many such patients through his occult powers and amulets.

The Śākt cult attaches special importance to (a) Mantras, i.e., prayers, formulae and Bījas (syllables of mysterious significance); (b) Yantras, i.e., diagrams of mysterious significance drawn on metal or paper; (c) Mudrās, i.e., special postures of fingers and movements of hands in order to imbue

one's body with the life of Devī. By using all these means, the worshipper causes the deity to show good-will towards him and compels the deity into his service by his Sādhanā, and becomes a Sādhaka, a sorcerer. Sorcery is one of the principal aims of a Sādhaka. The cult of Devī thus leads to grossest misuse of powers by means of sorcery as well as to the ideal of salvation. The sensual and spiritual elements are well mixed in the cult itself.

From the above description, it will be seen that Tantra and its practices, which are followed by Śākts, are mysterious, magical, and full of occultism. The efficacy of these can be realized only by those who practice them under the guidance of a Gurū after being fully initiated. The secrets of Tantra are not open and meant for all, and this has restricted to a considerable extent empirical studies on Tantra. Moreover, many of the practices as described above are either harmful to others or meant for self-exaltation. It is neither possible nor desirable to design studies on such practices. However, there are many practices pertaining to medicines or psychokinesis or using agents to bring things by crossing the barriers of space and time etc., which could be studied. Undoubtedly Tantra provides rich material and several psychic and psychokinetic phenomena for experimentation and study, although its secretive nature makes the task difficult.

BIBLIOGRAPHY

- BARNETT, L., *Antiquities of India*.
 BANDOPADHYA, S. K., *Tārāpith Bhairab*. In Bengali (Calcutta, 1951).
 CHAKRAVARTHI, K., *Lectures on the Hindu Religion* (Calcutta, 1893).
 DUTT, M. N., *Wealth of India* (Calcutta, 1900).
 DOUGLAS, N., *Tantra Yoga* (1971).
 ELIOT, C., *Hinduism and Buddhism* (London, 1921).
 GHOSE, M. N., *A Brief Sketch of the Religious Beliefs of the Assamese People* (Calcutta, 1896).
 GRUNWEDAL, A., *Buddhist Art in India*.
 HASTINGS, J., *Encyclopaedia of Religion and Ethics*, Vols. I to XII (Edinburgh: T. & T. Clark).
 HOWELLS, G., *The Soul of India* (London, 1913).
 JACOLLIT, L., *Occult Science in India and among the Ancients* (New York, 1900).
 KAVIRĀJ GOPĪNĀTH, *Tāntrik Vangamaya in Śākt View*. In Hindi (Vārāṇasi: Chaukhamba Prakashan, 1970).
 ———, *Sādhu Darsan Tathā Sat Prasang*. In Hindi (Vārāṇasi: Chaukhamba Prakashan, 1967).
 KRISHṆAMĀCHĀRYA, M., *History of Classical and Sanskrit Literature*.
 MUKHERJI, A., *Tantra Art* (Delhi, 1971).
 PANDE, K. C., *Abhinava Gupta, a Historical Philosophical Study* (Vārāṇasi: Chaukhamba Prakashan, 1966).
 WOODROFFE, J., *The Garlands of Letters* (Madras: Ganesh & Co., 1971).

- , *Tantrarāja Tantra and Kāma kalā* (Madras: Ganesh & Co., 1971).
 ——, *Shakti and Śākta* (Madras: Ganesh & Co., 1921).
 ——, *Principles of Tantra*, Vols. I & II (Madras: Ganesh & Co., 1969).
 ——, *The Great Liberation—(Mahānirvāṇ Tantra)* (Madras: Ganesh & Co., 1971).
 ——, *Kulārṇava Tantra* (Madras: Ganesh & Co., 1971).
 ——, *Introduction to Tantra Śāstra* (Madras: Ganesh & Co., 1969).
 WILLIAMS, M., *Brahmanism & Hinduism* (London, 1891).
 WINTERNITZ, M., *A History of Indian Literature* (Calcutta: University of Calcutta, 1927).

DISCUSSION

SMITH: Thank you, Professor Prasad, for a most interesting paper.

SERVADIO: First of all I wish to congratulate Professor Prasad for his presentation, which I found extremely precise and to the point. But I would like to ask him to clarify two major points. One is this: all during my stay in India and in my studies of Hindu traditions and philosophy, I came to the conclusion that the final aim for any Yoga school is not the pursuit or possession of paranormal or occult powers. I wish to know if this is exact, because I seem to remember that in the third chapter of Patandjali's *Yoga Sutra*, which I think is the maximum authority in Yoga, it is very clearly stated that, as I said, the pursuit of paranormal powers is not the aim. If this is so, we must come to a couple of conclusions and I wish that Professor Prasad would say whether I'm right or not. First, that the Tantric school of Yoga cannot have as its supreme aim the pursuit and the possession of occult powers, otherwise it would be out of the Yogic tradition. But another conclusion which is more interesting for us is that if the supreme aim of Yoga is as the name itself says, that the unity between the Atman and Brahman are identical, then I think that our hope to obtain something valuable for our parapsychological studies from that source is an impossible hope, because a true Yogi will not have us in his presence since this would be contradictory to his main philosophy.

PRASAD: I am very thankful to you, Professor Servadio, for correcting me if I gave that impression. The final aim of Tantra and of Yoga is to attain salvation and if any of these powers are a by-product, and if I gave a different impression, I am glad I have been corrected by you. That answers your first question. The second is, you are absolutely right when you say that it is very difficult to arrange and conduct any experimental studies on yogis. In fact, for the last two years now, we have been trying to do a longitudinal study of those who practice yoga and to see at what stage they develop these powers, and it has been very difficult for me to pursue the

studies with those who practice yoga, to agree to be subjects for our study. In the first place, let me confess very earnestly that the real practice of yoga is fast disappearing in India also. It is very difficult to find really good subjects who really want to practice yoga. Most of them want to practice what gives them physical fitness only; but the real yogis are very few and even when they are found, they do not agree to be subjects for empirical or experimental studies. Luckily, there are some in a certain district where I persuaded the swami, who was very scientifically oriented, to cooperate in the interests of research. Also, there were about nine foreigners practicing yoga with him, and they agreed. So I began my experiment in the hopes that perhaps this would give me some data. Unfortunately, after the war with Pakistan in 1971, their visas expired and were not extended and almost all of them left, so the experiment has to be begun afresh. So I entirely agree with you that it is very difficult to arrange experimental studies in the field of yoga and also in the field of Tantra. But all the same, they were very valuable and very potential subjects or fields. Have I answered you?

SERVADIO: Yes.

SMITH: Mr. Walter?

WALTER: Yes. I have one experience of an EEG recording of a Hindu colleague some years ago. He was in a lotus position in our laboratory in London and he attained a state in which his alpha rhythm which is a sign of tranquility, became like an oscillator: absolutely regular rhythm for about twenty minutes in the lotus position. I didn't try to arouse him because he was in abstract meditation or whatever one would call it, but his alpha rhythm became absolutely continuous and uninterrupted. I tried variously to talk to him, to say something, but the rhythm was absolutely regular as though it came from a machine. And then when he had completed his study, he became a normal person again, became responsive, and it was very interesting. But for twenty minutes he retained a complete abstraction from the outside world, even objectively, in the record; I have the record still. So that was one experience. I believe some California people have also made some studies on this, in India.

SMITH: At the Menninger Clinic, a swami was studied and he was asked if he could, at will, break the alpha rhythm, and he did so. They asked him how he did this, and he said, "It was easy. I thought of all the things I wish I had done and didn't in life; all the things my friends thought I should have done and didn't, etc."

BHARATI: I was told that you get the same uninterrupted alpha rhythm when you do an EEG on a woman who has sexual intercourse and who doesn't have an orgasm, which I understand happens frequently. So sometimes I feel that those controlled apparatuses are selectively slanted to show something which might also apply in other situations. Therefore I think there's a much easier method to approach all this. Since the clinical controls that could be used would probably also show similar results in totally different situations, I think what we have to do is to simply watch what happens. I remember Arthur Koestler once wrote that in some village in India someone could suspend himself in mid-air, but what really happened was that he was lying flat on his back in an expanse of water. Now since people in India don't usually swim, this seemed to them very important. I myself had a very interesting experience in India. Someone told me that a certain Yogi in the Almora area could levitate. This was something I had to see. So I went there, and all these people were sitting and chanting and the man was sitting on his mat. In the morning they asked me if I had seen him levitate. I said no. They said, "That's because you're not initiated." So I think that what really happens, the key to these phenomena in the first place, is of a linguistic sort. The ascription of occult powers, at least in the Hindu tradition, works very much like terms such as "the guy is popular." When you say a person is popular, you say nothing about the person, but you say what people say about him. That's the meaning of "popular." Our colleagues from Oxford know that from people who have studied linguistic behavior when they refer to all kinds of experiments or events. Now in Jamuna Prasad's presentation, what I found rather tricky was that there are about five people in this room who know the Sanskrit terms he uses. These terms are not that important in an international philosophical or experimental prospective. So I think what we have to see is that what he really did was to present the views of a believer, for whom all these things have some kind of objective reality. Whether they have objective reality or not is beside the point. I would say that the first thing that you have to do when you study mystical behavior anywhere in the world is to know the very important axiom first started by W. T. Stace, and I quote him, "... Mystical experience of any sort does not confer existential status upon its content," which means, that although a person thinks he has an experience of a certain power, it doesn't mean that this power has any objective corollary. Now, whether it has or not is beside the point. I'm not really interested in that, so therefore when you talk about occult and other powers, what really happens is that occult powers are ascribed to a particular set of persons, and that is all really we can do. Now regarding the

Menninger Clinic and your experiments with the yogi—all this is very interesting, but I don't think it's very important because the clear alpha rhythm, it seems, can be elicited by many other means or in many other situations as well.

HALIFAX-GROF: I would like to disagree with you. The work being done at the Research Department of the Menninger Foundation, Langley Porter Institute, and in Baltimore demonstrates that biofeedback has medical application and from that point of view, it is important.

BHARATI: Yes, from that point of view, but not from the point of view of describing the objective content of occult experiences. After all, psychiatrists and psychologists supposedly offer some good therapy, but what they think about the way the human mind works in their patient is usually more questionable. Because you have a therapeutic effect on a person, it doesn't mean that you understand him. We don't know how aspirin works. It works somehow.

HALIFAX-GROF: From the "emic" point of view, that state is supposed to have a therapeutic effect on the individual; it is supposed to be a healthy state. We can then transliterate the "emic" point of view into the "etic." That is to say, if a culture bearer experiences and subsequently interprets that kind of behavior (which he doesn't have an EKG or an EEG machine to measure) as valuable, therapeutic, etc., we can take that bit of learning and apply it in the modern medical framework. And we have with biofeedback, in terms of eliciting these kinds of behaviors.

LEWIS: I would like to ask Professor Prasad a question, if I may. Could you tell us a little bit about the membership of Tantra, Tantric cult and sex? Are there any distinctive features about social background in the Indian context of the membership?

PRASAD: There is quite a good percentage of persons who don't follow this religion who do practice Tantra.

LEWIS: Do they relate, for instance, to a discernible caste system or to any specific age group or sex or occupation?

PRASAD: Caste is no distinction.

BHARATI: Well, that means in fact that the people who practiced Tantra were usually of low caste origin because that was a very important fact in the genesis. It is anti-Brahmanical, but some Brahmans in the Tantric areas as in Bengal practiced Tantrism. But there's another point: that the

Bengali Brahmans are not accepted as Brahmans at all by other Brahmans, because they eat fish and do other offensive things.

KREITLER: Since the point was brought up of discussing two kinds of approaches, I must remind my colleague Professor Bharati, that what he calls an observation, namely, looking at papers, noting down what is being done and trying to understand what it means, is in fact an interpretation, as is Grey Walter's interpretation of EEG. Now, which one of these two interpretations is relevant depends on the aims and on the professional approach of the researcher, and I therefore would not say that the interpretations of psychologists or biologists are either irrelevant or nonsensical. An anthropologist's descriptions can also be nonsensical.

SMITH: Benson Herbert.

HERBERT: I recently talked to a professor in Moscow who had heard of a yoga in India who could levitate, and he received a very considerable grant from the Soviet Union to go and investigate this yoga gentleman. On investigating him, he found that he lay flat on the floor and he was able by his will to contract his muscles to leap a little into the air, although one could not see the movement of the muscles. Then he fell down again, and that was the levitation!

KREITLER: Didn't he stand up again?

HERBERT: No. He fell down again. And then my friend returned to the Soviet Union and made his report.

WALTER: Which psychologist was it in Moscow?

HERBERT: I have it in mind but I can't remember just at the moment. Another point I'd like to make is a comparison between Indian ancient philosophies, etc., and similar ancient philosophies and religions here in England in a form of Druidism. There are certain points of differences and certain points of similarity. In the case of Druidism, according to the ancient books of Wales, which perhaps date 400 A.D., we find that there were positive indications that the purpose of these rites was to have paranormal powers. You had the cauldron of Keridwen, for example, and this gave second sight, etc., and curative powers. The other point is a point of similarity throughout the excellent paper we heard from our Indian friend here: We heard repeatedly the notion of secrecy, that the rites had to be secret; that the people outside this system were not allowed to know of the secrets. This is very similar to what happened in Druidism where they used scripts, which I'm sure you know of. The Druids used a sort of shorthand

with their fingers. The scripts resembled twigs on trees and they had one finger, two fingers, three fingers, etc., and also some ancient Greek alphabet, which the other people in the king's court could not understand. So they could keep their secrets, and chat away behind the king's back as it were, among each other. I would like to hear Professor Servadio's views on the psychoanalytical idea of all this secrecy, like the freemasons forming bodies that nobody else should know about. There's some psychological element behind this. Can you say something briefly about this?

SERVADIO: No, I can't. It's impossible to describe that secrecy and what it means in depth in just a few words. It would take at least one hour.

SMITH: Well, we're running short of time. Let's have a final comment from Professor Prasad.

PRASAD: No, I don't think I need add anything except to thank all of you, and especially Dr. Bharati for his very very valuable suggestion and some of the other suggestions that have come.

SOME REFLECTIONS ON ANTHROPOLOGY AND PARAPSYCHOLOGY

MARCEL MARTINY*

The two scientific disciplines, anthropology and parapsychology, should one day become the object of a systematic comparison, destined to measure the deep-seated resources of the human personality.

This means that anthropology should be viewed in a restrictive sense, even if comprehensive, in order not to confound it with ethnology, sociology, and other disciplines of thoughtful research.

Anthropology—the term was created by the anatomist Paul Broca—should be limited to the natural history of the human race, that is, have disappeared or which are still surviving in our day and age, to the study of the whole man, of his morphophysio-psychological individuality from his birth to his death.

Man's environment, the manner of his existence, the dynamic of biological rhythms and their periods must be considered as elements modifying the human being to the degree in which they favor the appearance of parapsychological phenomena in the individual.

The anthropologists have pushed back in time man's origin by considering the prehominid as our ancestors.

Traces of the Australopithecus going back more than two million years have been found in southwest Africa; it is then that changes of adaptation took place within the human animal.

When the forest changed into a savanna, this early beginning of humanity was endangered by the wild beasts of the grassland.

It seems that the change of life from total tree-dwelling to partial living on the ground has freed the hand. At that time and for several centuries afterward the prehominid used a rudimentary tool and reached the stage of the "pebble culture." In his feeding habits he was both granivorous and carnivorous, the first by collecting the fruits of the soil and the second by

* Dr. Martiny was unable to attend the Conference and his paper was read by Dr. Servadio.

hunting. His food supply was supplemented by eating insects and shell-fish and undoubtedly by cannibalism, though probably more through accident than through design.

Is it possible to form a conception of the psychological and parapsychological conditions of these prehominid, of whom anthropology has noted only their economic activities?

For the long periods during which they remained well hidden in the trees, we can only form hypotheses concerning their behavior.

One of the most interesting views was formulated by A. Spencer Paterson, a London psychiatrist, who, by the way, is not strongly oriented towards depth psychology. The latter, of course, is the essential link between anthropology and parapsychology.

A fact which impressed this author is the physical and mental attitude of the great catatonic schizophrenia which is found in certain forms of dementia praecox and which could well simulate the behavior of primitive man hidden in a tree.

During the phase of catatonic rigidity of schizophrenia, the hands and feet assume a position of gripping, as if the subject were clinging to a branch. He remains intermittently in a state of total immobility, which can last minutes, hours, months and even longer. For days, a complete stoppage of the physiological function of defecation and urination can be produced. Paterson believes that this is a state of regression. This archaic attitude would coincide, in the life of a tree-dweller, with the necessity to hide from the wild beasts roaming around him. By not moving, by not making any noise, by not giving off any odor, he would remain unnoticed, immersed in a state of stupor.

It is all too easy to compare this with the grasping reflex of the nursing infant—the term for the archaic reflex of flexing the fingers or toes of the extremities.

It could possibly be assumed that, with the *Australopithecus*, whose frontal lobes were certainly poorly developed—the anterior part of the cranium having a receding appearance—a functional predominance of the temporal lobes was produced, especially of the rhinencephalon. This part of the brain contains the seat of a very strong, primitive cruelty, which is more or less controlled.

It is also known that, during the aura of epilepsy of the temporal lobe a state of auditive and visual hallucination is often produced, with the predominance of an alienating subjectivity. This combination could well represent the mental attitude of the prehominid in a temporary schizoid state. Then, suddenly, these early men would go on to attack, coming out of

their parapsychological state by means of a lucid aggressiveness. Naturally ferocious and timorous at the same time, they were capable of brutally and swiftly killing an adversary or prey, whether man or beast.

In discussing them, E. Kretschmer would speak of epileptoid conditions, and Madame Minkowska of mental viscosity.

For Paterson, schizophrenia would be a state of regression of a phylogenetic order which would not mean incurability.

Near this process is the catatonic state found in the physiological behavior of certain arboreal animals which are easygoing or lazy and which constitute the lateral modalities of evolution. Perhaps these species have in common ancestors of a very early period, reaching back to the appearance of certain families of mammals adapted to a parallel life.

Freud went so far as to believe that telepathy was a manner of transmitting human thoughts before speech, at a state of conscious signs and individual cries.

The discoveries in South Africa (*Australanthropus*, *Zinjanthropus*) report the appearance of the species "homo" at a much earlier geological period than assumed before, perhaps at the end of the Tertiary; this fact extends considerably the duration of the evolution of all the properly human phenomena, especially language.

At its appearance, telepathy and premonitions which are, without doubt, archaic powers, partially lose their utility. Leroi-Gourhan in France and Bounak in the USSR base their opinion on two types of indirect proof. The first is the observation of the development of the cortex before the Rolando groove in animals and then in man. Starting with the *Australanthropus*, the human brain possesses frontal areas and ascending parietal bones which are typical for man, at least in their extent. These are the areas where the locomotive centers of the corporal and manual abilities are located, as well as the areas of speech, in a structural arrangement comprising the entire encephalon, while with the large apes these regions are rough-shaped. Starting with the *Australanthropus*, we find the making of tools corresponding to a functional stereotype found in millions of cases.

The cerebral areas of technological motivity and those of speech are interdependent. However, we still can consider the remanent importance of parapsychology with the archanthropus of the interglacial (Mindel Riss) period (*Pithecanthropus*, *Sinanthropus*), who were users of fire with their rough bifacial tools of the Lower Paleolithic.

The Neanderthal *Paleanthropus* appeared during the Riss and Wurm interglacial period. It is the Mousterian period of the Middle Paleolithic. The cut stone tool becomes more refined. This man realizes that he is

mortal. He buries his dead. He becomes involved in magic. The parapsychological phenomena have certainly a primordial importance in the primitive religions.

With the arrival of the Cromagnon man about 50,000 years ago, homo sapiens with our brain structure makes his appearance.

The Upper Paleolithic brings in perfected tools, as testified by the objects of decoration, stones formed into laurel leaves, and the frescoes of Altamira, of Lascaux and other places.

The instinct of the hunted hunter maintains, without doubt, a mental state midway between intuition and clairvoyance. This is prolonged into the Mesolithic, 10,000 to 5,000 B.C., and into the Neolithic, from 5,000 to 2,500 B.C.

However, in our day and age, there still exist fossil civilizations of men living in nature. The French explorer Vuilleminot, who stayed long months with the aborigines of Australia, found that their way of life was of a Neolithic type and that thought transmission was still practiced.

In the African forest, the pygmies, according to statements by the populations surrounding them, still practice thought transmission.

At the beginning of racial differentiations, the fossil homo sapiens of prehistorical times lived like primitive man still lives in our times.

Whatever the climate was, dry or moist, hot or cold, the human being had to be a beast among wild beasts and had to survive by killing.

The parapsychological phenomenon was a necessity, an autodefense required for escaping from the adversary and surprising him. Instantaneous clairvoyance and telepathy hold their place between instinct and intuition. These men had to fight for their lives against other men and against certain beasts: bears, lions, panthers, tigers, serpents, crocodiles and other more or less redoubtable enemies.

In the heart of Africa we find even today in remote places fossil civilizations where the animal totem is considered taboo, because the ancestors reincarnate in it.

All that will soon disappear. But there still remain parapsychological manifestations of the man who lives close to nature.

The purely scientific observer of the great black race of Africa, with all its sub-groups and tribal characteristics, is obliged to recognize one great fact: the attachment of these people to the African soil, to the forest, to the savanna, to the desert.

There is something biological in it: the Negroes in their parlance speak of roots.

The black rustic, whether he is a farmer, a shepherd, or a fisherman, appears to be more rustic than all the other rustics of the world.

He finds his happiness essentially in a rural way of living, even if the working conditions are sometimes difficult.

His negritude, as conceived by President Leopold Senghor, serves as a shield which defends the black countries against the implantations of strangers. Some young blacks, especially, would like to see socialism take hold, but the latter could produce, if its application is imperfect, the phenomenon of rejection.

The black man reacts with a specific emotion to contact with concrete realities: to the land, to the soil, to the cultures, to the educational rites. If he is very Europeanized and deeply learned in the art of reasoning, he still retains a marvelous leaning toward intuitively perceived knowledge. It seems that the black man grasps more instinctually than the white man the symbolic language of the subconscious, noted first by Freud and later by Jung and Bachelard.

All the parapsychologists could be quoted here, among them the American psychoanalysts and the essayist Aldous Huxley. The symbolic language of the subconscious reaches the plane of the poet and the artist on the conscious level; the complete man is then revealed, enriched by the discovery of his own depths.

For the black it is no longer a case of subjectivity but of objectivity, under the condition that he leads a natural life, as found in certain poor but contented villages. This way of life gives to the human being a salutary equilibrium and suppresses the despair of existence.

This is, no doubt, what negritude aggressively strives for in the case of the workman, the technician, or the intellectual of tomorrow.

It is evident that a European anthropologist will first run into the particular ways and customs and psychological and affective conditionings which are foreign to us whites. It is indispensable to see the problem not from the outside, but from the inside.

The spirit of the black race is revealed during collective dancing, for example. Here, there is no possibility for experimenting; one can observe, however, under the conditions of excitement, the emergence of parapsychic characteristics.

The corporal sensations or cenesthesia which are consciously perceived, are either of a visceral (endesthetic) origin, of an osteomuscular, circulatory and genital (amphiesthetic) origin, or of sensory origin (exesthetic).

The endestheses are essentially alimentary. They depend on the qualitative and quantitative part played by the intake of certain exceptional food. The pygmies, who are vegetarian as a rule, become intoxicated by the meat of the elephant which they have killed and on which they gorge. Beverages produced utilizing macerated plants can induce clairvoyance

and clairaudience in the blacks. These play on the metabolic functions and have their repercussion on psychism.

It is important to keep in mind and further investigate that certain foodstuffs can conventionally represent something sacred: a substitute, magic, and even something imaginative.

Unfettered amphiestheses can produce states of physical agitation, leading up to total exhaustion. They occur at the time of ritual dances representing the actions of warriors, accompanying the ceremonies of circumcision. They provoke a strong rhythmic or erotic excitement with certain natural odors which stimulate the senses.

The exestheses complete the experienced sensations. Thus, the noisy cadence of the chants harmonizes with the beat of the tom-tom, with the sound of the instruments which we find transposed in jazz music, with syncope, animation, heat, brilliant light, and scintillations bordering sometimes on the psychedelic.

The oscillations of the corporal image in relief, causing another state of dizziness, are added to this combination of hypercenestheses. The whole is somewhat hallucinogenous, modifying more or less the painful or voluptuous reception and causing the appearance of a series of phenomena on the borderline of parapsychology.

Without bodily exaltation, i.e., unstimulated, a kind of dialectic between the conscious and subconscious is produced. It evokes in man living close to nature: a black, a white, or an Asian, a manifestation which is more elementary than what would be called "magic." Magic dominated in the ancient civilizations and still has its hold on certain men, both in cities and in the country, who are still in the grip of medieval beliefs and of occultism.

Here we find, transposed and intellectualized, the endo-amphi-exesthetic factors. We must approach this anthropological problem with much respect and with even greater reserve, as it concerns something bordering on superstition, but which at the same time forms a part of the symbolic language of the subconscious.

The endesthesis concerns, then, a fetishistic adhesion of the spirit to substances. This might explain the importance which certain groups of men attribute to fortunes and voodoo, either by creating figurines which are transpierced, or by obtaining nail clippings or saliva of a person to be put under an evil spell, in most cases. This is essentially the work of sorcerers.

But there exists also white magic, the magic of releasing and protecting from spells: the magic of the marabouts, of the saints. Here we have an ambivalence, as good must combat evil with equal weapons.

In this case, as in others, it is interesting to consider the morbid troubles

imagined or perhaps provoked from a distance in one individual by another. Cases of hallucination with human apparitions in order to lure the participant into the trap of fear have been reported by very convinced victims.

Amphiesthesis can manifest in phenomena of displacing utensils, of levitation by suspension of gravity, of spontaneous noises. Only a strict historicity could judge the part played by legend and that played by prestidigitation in these improbable hauntings.

The exesthesia, if admitted in parapsychology, must go beyond the sensorial domain. With primitive man, clairvoyance, if it existed at all, had a purely pragmatic character. With civilized man, black or white, the imagination can break loose by a simple contemplation of clouds or of a landscape.

It is possible to believe that people, dallying with ideas of the distant past, effect a research of paravision by manipulating the bones or organs of sacrificed animals, by remembering the ancient mysteries, the oracles of Roman auguries, by observing the residual intestinal peristalsis of disemboweled and still palpitating animals.

In the African village of our day, shells and coins serve in predicting the future.

In negritude, the whole man turns, perhaps with a higher attitude, towards a psychogenesis which is, in itself, the symbolic history of phylogenesis.

The imaginary dragons of all primitive religions and in all cosmogonies evoke the reptiles of the Jurassic, long before the existence of man.

The chronological order of the genesis of the Hebrews, a people rich in prophets, follows strictly the evolution at a time when science did not exist. This perhaps indicates that we carry in our genes the whole past of creation.

The Apocalypse is another poetic example which can be viewed as premonitory. The technological semantics of the epoch was too poor to give a modern sense to vision.

Exploring one's own depths in order to go towards the future is perhaps the most typical aspect of negritude and of science: both would be builders, for mankind, of future less-oppressive civilizations.

The blacks have already given to the contemporary world the main features of surrealism, a sure renovation of painting, sculpture and music of our times.

Parapsychology itself can become enriched by incorporating within its knowledge the phenomena of savage Africa. The scientific disciplines, in contrast to statistics, will perhaps deduce from them tomorrow astonishing facts revealing the possibilities and resources of the human being.

The people of India and the yogis, the Tibetans and the Buddhists, the Japanese in their followers of Zen, as well as certain contemplatives of the Christian world reach up to these parapsychological powers of the spirit not by amplification but by a diminution of the cenestheses.

The study of the mystics, of their habits, their social and family behavior is, no doubt, of great interest for the anthropologist and the parapsychologist. This would mean research of the physiopsychological mechanism of illumination and, occasionally, of trance.

A deeply modified metabolism of the human body produces endogenous drugs by an almost total reduction of the sensations.

The personal experience becomes an alienation from outside observers. It is reached in the domain of the endestheses by the effects of fasting; in the domain of amphiesthesia by immobility, prolonged apnea, and chastity; in the domain of exesthesia by obscurity and silence. In short, it is the ways and customs which favor or do not favor the appearance of psi phenomena in the normal and abnormal. The race adds only one characteristic tendency whose impact is not comparable with the ethnic influences.

Between the two world wars, during an expedition dedicated to the study of small South American tribes, the ethnologist Vellard picked up a little child, two years of age, originating from one of the Guyaquil tribes.

The Guyaquils of Paraguay, living in total isolation, have progressed little during ten thousand years; up to modern times, they were neither acquainted with the methods of manufacturing pottery nor with the techniques of hammering metals. They were in a prehistoric stage: cutting silex, making bows and poisoned arrows, and blowpipes. They did not have any agriculture, they constructed no dwellings, they moved on, searching for the most favorable opportunities of finding elementary food supplies, which consisted chiefly of the honey of wild bees, etc. Here, as in other instances, the ethnologists have never studied systematically the presence or the importance of psi phenomena. The structuralism of Lévi-Strauss supplied the primordial data for an understanding of the behavior of an individual in primitive societies and his desire to escape from our type of civilization.

In this case, this South American tribe had vanished in order to avoid contact with any explorers—displaying a mistrust based, without doubt, on a great many direct and ancestral experiences. The child, a little girl, had apparently been “forgotten” during the general haste of departure. Vellard took her back to France where he placed her with his own family who brought her up together with the other children.

She was normally gifted and was able to follow university courses which

permitted her to become a distinguished ethnologist, following in the footsteps of her guardian, who ultimately married her.

Having presented the possible links between parapsychology and the anthropology of the prehuman and that of the present races in relation to the environment, we shall take up the individual biotypology with metagenomic predispositions.

We are, in fact, more or less mediumistic, independent of our physical makeup and even of physiological tendencies, our character and, indeed, our very intelligence.

If the faculty of a metagnome to produce the psi phenomenon is a purely intrinsic, perhaps even a genetic quality, it nevertheless appears that certain favoring incidences are at least partially ascribable to biotypology.

There exist as many biotypes as human beings. However, each type can be related to certain basic prototypes. It concerns useful converging approximations. It is not certain that they correspond to a purely hereditary factor, a homozygote. Some day, by improved methods, the molecular biology of genetic codes will learn whether it concerns a habitual or incidental constitutional structure.

During World War II, Sheldon in the United States and I in France proposed an identical scheme, although separated from each other and without any scientific contact. It would be humorous to believe that this was a case of telepathy, or of a significant coincidence. Besides, Sheldon arrived at his classification by way of statistics and I by clinical deductions.

Discoveries emerge: quickly they are superseded and discarded; they serve, however, a certain use during a more or less extensive period.

The elements of a classification of human types, based on the ontological predominance of the primordial embryological parablasts, will retain, for some time, a practical value. For this classification, Sheldon proposes the terms endomorph, ectomorph, and mesomorph, while we, in a parallel terminology use entoblastic, ectoblastic, and mesoblastic.

The influence of morphology on physiopsychology is sometimes valid; therefore it is necessary that the underlying reaches of a system, an organ, or an endocrine gland do not modify the scheme, nor an individual traumatic history relevant to psychoanalysis. These reservations diminish but do not eliminate the interest of a study of constitutional anthropology and parapsychology. The acquired character then no longer agrees with a given morphology. It is nothing more than a manner of habitual thinking. The appearance and the frequency of psi phenomena are produced in this case in a way which is totally unforeseeable by the anthropologist.

The endomorph or entoblast appears in his outer aspect as a stout

person, sometimes with a moon face; the nose is often concave, the lips are soft and turned outward. This basic biotype is found more often in women; it readily corresponds to the amorphous type of the characterologists. Among the cenestheses reaching up to the conscious, those predominant physiologically are the endestheses. The joy of consuming food is primordial.

Gifted with a superior intelligence, this biotype can attain with calm and depth the highest speculations of the spirit. Weak and incapable of organized actions, this type takes refuge in daydreams, and easily becomes a victim of mythomania and taxicomania.

The presence in certain places of an adolescent girl corresponding to this constitution which favors immaturity would more easily bring about psychokinetic phenomena. We are putting forward this opinion with great caution. A systematic typological study has never been made.

We can say that the hallucinations provoked, associated with an intuitive mentality, favor the realization of this mediumism.

The mental deviation of this biotype is one of thought dispersion, leading to a wandering mind. From the wisdom of Socrates it may swing to the instability of Verlaine.

The mesomorph or mesoblast is a stocky biotype, all thorax and muscles, with a hexagonal face and a nose which is often convex. The masculine type is more accentuated. It corresponds to the sanguine temperament of the characterologists.

Physiologically, these are amphiestheses that predominate among the cenestheses.

The instinctive motor functions are especially developed in this human type. It is necessary that this factor be normal or even augmented so that the depth personality of the individual can be expressed in its need for physical action.

The cyclothymic pyknic type described by E. Kretschmer corresponds to a paramesomorphic degenerative mixed type.

This more plump than stout type is often found in rustic healers. These healers, who have faith in their powers, perform the laying on of hands and other manipulations by directing heat and cold to the body surface of the sick person.

Another basic biotype is one of a double entomesoblastic predominance. It corresponds to the heavy athlete or to the mature virago-type woman. The pure entomesoblast corresponds to the phlegmatic type of the characterologists.

This biotype, when deprived of intelligence and morality, has been viewed

as a great psychopathic deviation, with tendencies of sadism, brutality, of killing and rape.

Lombroso's conception of the born criminal has been disproved, because a person can become a murderer for any other degenerative or incidental reasons.

Recently, genetic researchers have found, in the karyotypes of imprisoned entomesoblasts a great frequency of a long chromosome Y, sometimes even a double chromosome Y, according to the formula YYX.

According to the metagnomic viewpoint, these people would be especially gifted as detectors of the physical forces of nature. However, it is not sure at all, contrary to the opinion of Ferreyrolles, that the dowsers, if not the radiesthesists, almost always belong to this biotype.

In any case the official confrontation of constitutional anthropology and parapsychology has only just started.

The ectomorph or ectoblast is a thin person, without strong muscles and without fat, with a triangular face. He corresponds to the nervous temperament of the characterologists. Physiologically, he is hypersensitive to the sensorial exestheses (in particular to sound and light).

If the muscular motor functions of the mesomorph give him an impression of strength and adaptability, the muscular lack produces in the ectomorph a sensation of weakness, unadaptability, and detachment. In contrast to the intelligence of the mesoblast, who is concrete, objective, and extrovert, the intelligence of the ectomorph is abstract, subjective, and introvert. This biotype is capable, coldly and dryly, of rigorous extrapolations as proven by Erasmus or by Calvin.

A broken-down affectivity of this sometimes senile biotype turns him easily into a schizoid personality. True, he has an intellectually refined behavior, he is imaginative, with incursions of the mind into a tormented analysis, but he can, through isolation, make incorrect judgments in the abstract and sometimes even with some effective anesthesia. We think here of the drama of Pascal.

This biotype would accept parapsychology willingly. He has, without any doubt, more than others the metagnomic sense of figures. The premonitions of this type are, perhaps, more exact if the person is of the feminine sex.

Besides the entoblast, mesoblast, and ectoblast, we studied a fourth biotype, with three equilibrated parablats, called chordoblast or orthoblast. This long-line muscular type has a rectangular and harmonious face and gives an impression of success. It corresponds to the choleric temperament of the characterologists.

The result of this coherence is a well-balanced, calm, attentive, temperate, serious, determined being, a person with initiative, a good memory, and controlled imagination. Physiologically, this is a man who is master of all his cenestheses.

It seems, however, that this biotype sometimes becomes the victim of paranoia. Often too proud, with an excess of self-confidence, he slips from a sound judgment based on recognition of realities into a judgment distorted by an overestimation.

By nature, he is not inclined toward metagnostic phenomena. In his heart, he does not believe in them, he believes in himself only. He lives on the surface of reason and mistrusts the insight into the depth of the subconscious. In biology, he is willing to take chances and to consider necessities.

When normal, this very rigorous and very strict biotype can be useful as a judge of critical reports on parapsychological facts.

Another biotype may result from a mesochordoblastic association. He has often an aerodynamic face and corresponds to the passionate temperament of the characterologists.

The feminine sex stresses the mental tendency. When she is gifted with a superior intelligence, this active and emotional personality has a rapid understanding permitting a heavy adaptation to the diverse circumstances of life.

Supple and adaptable, she becomes syntonized with her environment; but, due to an excess of reverberations, she becomes the victim of an anxiety neurosis which generally does not last long. Her hypermotivity is compensated by instability.

As a metagnome, she is not personally taken in by what she feels, contrary to the entomorph dreamer. However, she might be inclined to mislead others. It will be necessary to mistrust her assertions. It is true, of course, that this trait is found also with other constitutional types.

Another biotype agrees with the ectochordoblastic association. It corresponds to the sentimental temperament of the characterologists. The image of his body fills with harmony all his esthetic, sensitive thoughts. Too often he confuses the symbol with the symbolic objects. Due to the wealth of psychic correlations, he expresses a great intellectual and affective sensitivity.

As an outstanding artist, his creations impress more by their elegance than by their strength, as in the cases of Raphael, Mozart, and Musset. In paranormal perception, the metagnome of this type will show a tendency for poetic symbolism.

Among the basic biotypes, those with an organic entomesoblastic pre-

dominance will, in our opinion, be more easily and more sincerely receptive than the chordoectoblasts.

The chordomesoblast constitutes an especially well-adapted transitional biotype, with the exception of his inclination to trickery.

In contrast, the chordoectoblast does not deceive knowingly, but makes mistakes due to his lack of scientific exactitude.

Concerning the feminine sex, a metagnome type, the ectoentoblast, the eighth and last series which we describe, seems to possess an able receptivity. She corresponds to the apathetic temperament of the characterologists.

While the chordoectoblastic biotype is adaptable in action, the ectoentoblast is adaptable in expectation. With his lesser emotivity, he submits passively to his surroundings, while remaining untouched within himself. If a calculated perversity does not counteract the dispositions of this biotype, thereby encouraging skillful fraud, he can perhaps be considered to be especially predisposed to mediumism.

We come now to the end of a rather incomplete report. It is nothing more than a start in supplying information on the relation of psi phenomena to mediums.

It seems that the experimenters should make an anthropological study of the mediums, to whose interest it would be to better know themselves in order to be able to better fulfill their mission. However, we should keep in mind that we have discussed only the basic biotypes. In practice, we mostly deal with mixed types who have been transformed by the phases and modes of their existences.

In his astonishing *Notebooks*, Leonardo da Vinci expresses the following thought: "It is a very rare faculty which enables one to penetrate into the very heart of beings and which alone permits to produce an ideal resemblance which differs entirely from the accuracy of the eye. This faculty operates by divination and explains the unknown by the known, the inner being by its outer appearance."

The prehistoric, racial, and individual anthropology lies in the domain of parapsychology, still something "in the future." These two sciences should study the unusual faculties of the mind together, making progress each day.

This importance will grow in the future destiny of humanity.

DISCUSSION

SMITH: Thank you, Professor Servadio, for reading Dr. Martiny's paper.

BHARATI: I'm sorry Dr. Martiny isn't here. First of all he legislates what anthropology should be and I think that can't be done because anthropol-

ogy is a fact. It's simply there. I hope that the kind of anthropology which he has in his mind will never reoccur. It is anthropology which no longer exists, though it has historical value. Just to pick out one thing: hunting instincts—there are no hunting instincts; and regarding the gene carrying certain capacities: to my knowledge, genes only carry flat feet and maybe pointed noses. In other words, if you want to talk about two sciences, then you do harm to one science by exchanging their criteria. If parapsychology is indeed a science, then obviously it shouldn't be juxtaposed with what Dr. Martiny thinks anthropology should be.

SMITH: Professor Kreitler.

KREITLER: I want to mention two points raised in this lecture. The first one: It is an interesting and possibly a promising approach to take the function of different parts of the brain and to conclude that if a particular part existed or was present in the past, this and that kind of behavior should have appeared. However, the psychological conclusions should not be overdone. We know that on every level of development the brain functions in accordance with its total organization. Therefore we are not entitled to conclude that if what functions today (let's say as an inhibiting agent) was absent in the past, no inhibiting processes could have been performed. This is my first objection. My second warning is the following: It was stated that some primitive cultures practiced thought transmission. The implied tenet was that ESP was much stronger in the past than it is today. To quote a sentence said today, I think by Professor Bharati, "We should understand these kinds of observations in their frame of reference." Since to the best of my knowledge there is not a single empirical study which proves that thought transmission was truly effective, we should ask what is the meaning of this report? Does it mean that valuable information was really transmitted in regard to hunting, to fighting, etc., or for instance, that these primitive peoples could create a unity with a distant person? This could be the case, but it would be a different kind of thought transference. I don't see how the material presented here allows for assuming that the ESP capacities, especially telepathy and clairvoyance, were stronger in the distant past but later decreased in strength in spite of their obvious utility for survival.

VAN DE CASTLE: I can't comment on the anthropological aspects of the paper, but I think there is an interesting point raised about the possibility of greater sensitivity toward psi phenomena on the part of certain personalities and perhaps on the basis of some sort of constitutional psychology. I realize constitutional psychology is not terribly popular in the States, but

from some work that I've done with dreams where we had tried to fairly carefully differentiate body types according to the Sheldon system and found highly significant differences in the dream content, I feel that there is some sort of relationship between personality and body type. I know there are many many ways of explaining such correlations and I'm not postulating that they're carried in terms of the embryological structure. There could be many social pressures that would influence them, but from my own limited impression of some male mediums and sensitives that I've observed, I've noted that they do seem to have certain types of body builds. I've seldom seen a sensitive who would be built like the line backer for the Detroit lions. They often tend to have somewhat more of a soft type of physique, etc. I was just wondering, since Dr. Martiny's granddaughter is here, whether she could give us some indication of whether there has been any attempt to follow up some of the speculations here, regarding the different types of psi phenomena which might go with the different types of constitutional types offered in the paper.

SERVADIO (after a brief discussion in French with Dr. Martiny's granddaughter): Well, so far as she knows, there isn't any study being made.

SECOND SIGHT IN NORTHERN GERMANY:
TRADITIONAL POPULAR BELIEF AND
PRECOGNITION

GERDA GROBER-GLÜCK

The phenomenon of second sight belongs to three branches of science: parapsychology, psychology, and ethnology. In parapsychology it is part of the extensive field of transsensual perception, which means the faculty of acquiring knowledge of facts and events without the organs of perception. Among the three possibilities of transsensual perception: telepathy, clairvoyance, and precognition, concerning second sight we must exclude telepathy, as a psychic act between persons. Clairvoyance is usually confined to perception of present or past events. Second sight is considered to be a special kind of precognition, consisting of visionary experiences. There is no need to speak of the present scientific position concerning these phenomena in detail.

The contribution of psychology consists in a systematic classification of a psychology of superstition and in the knowledge of eidetics. To Karl Schmeing we owe the thorough elaboration of this knowledge in his works about second sight in northern Germany.

In ethnology, second sight is associated with the conceptions of popular belief, and in this section it is noted with much interest in monographical descriptions as well as in maps and in collections of legends and in descriptions of the entire folklore in a certain region. Differing from parapsychology, ethnology generally considers second sight to be the gift to see more than others, applying not only to future events but also to spirits and invisible things. To persons born on a Sunday, for instance, is attributed this ability.

Strictly speaking, second sight concerns spontaneous experience of future things, which include not only visions, but also auditory phenomena, daydreams, and presentiments appearing as indeterminate feelings.

The following notes are confined to this meaning of second sight and try to answer the question of the relationship between traditional conceptions

of popular belief and the parapsychological problem of precognition. Are the conceptions of second sight found in ethnological sources to be considered as evidences of traditional popular belief or do they contain a "true core"? And if there is a "true core": in which way are both complexes to be distinguished from each other? Emphasis must be laid on the fact that a true core is to be understood as an actually experienced fulfillment of a spontaneous vision of future events. In traditional popular belief and in legends, many occurrences are believed to be true, for instance, the wild hunt, fiery dogs, headless persons, werewolves, bleeding stones, burning treasures, and so on. The true core of second sight is also to be distinguished from the psychic reality based on archetypes found in legends and tales, or from the reality of the psychological function of legends to diminish indeterminable and great fear by means of articulating anxiety and concentrating it into definite shapes.

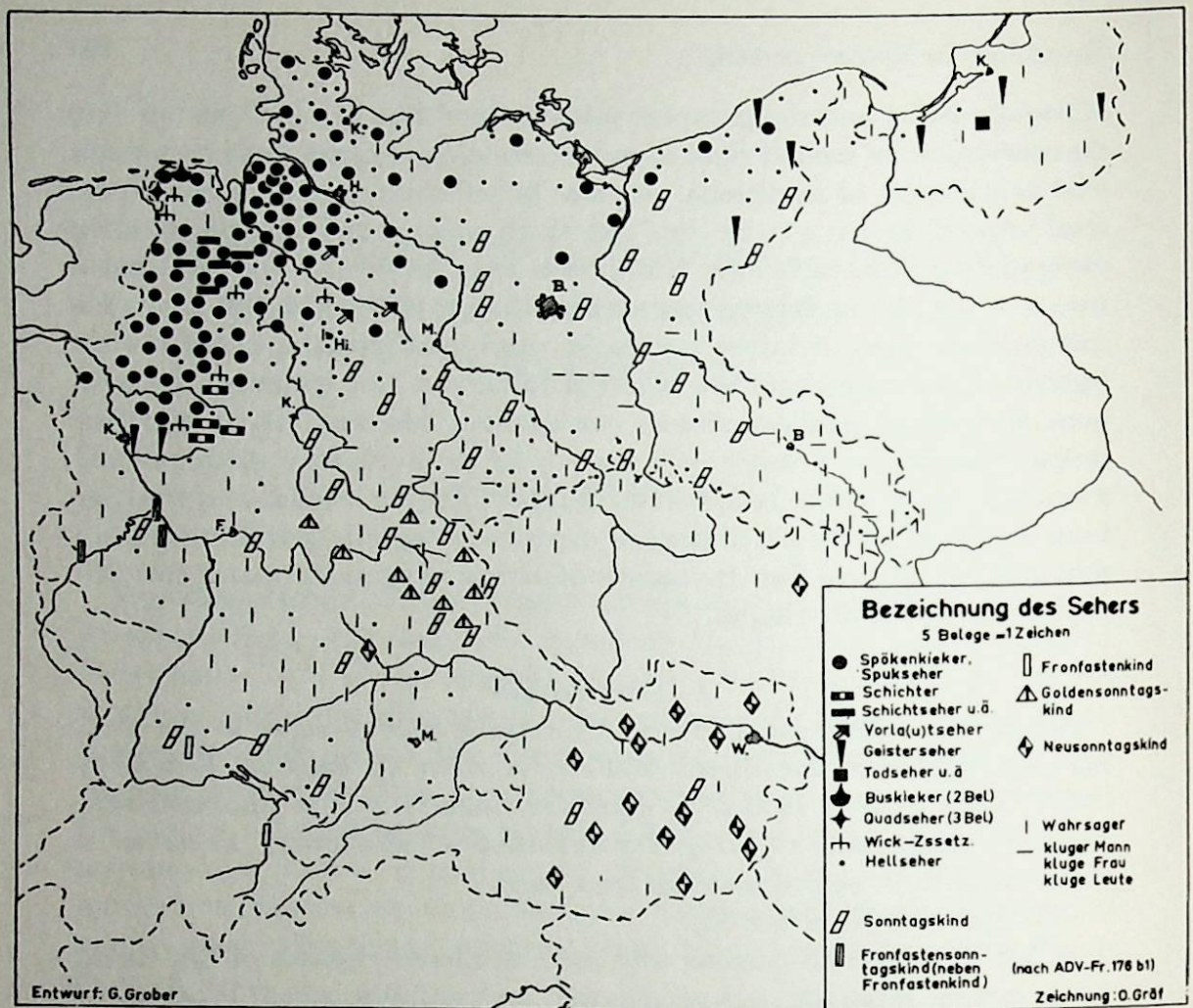
I—THE SEERS

Among the ethnological sources concerning second sight in the German-speaking area, the questionnaires for *Atlas der deutschen Volkskunde* (ADV) from 1930 to 1935 offer extensive material which combines synchronicity and a fairly even regional extension of the answers. Therefore it seems justified to use this material for a basis.

ADV question No. 176 asks:

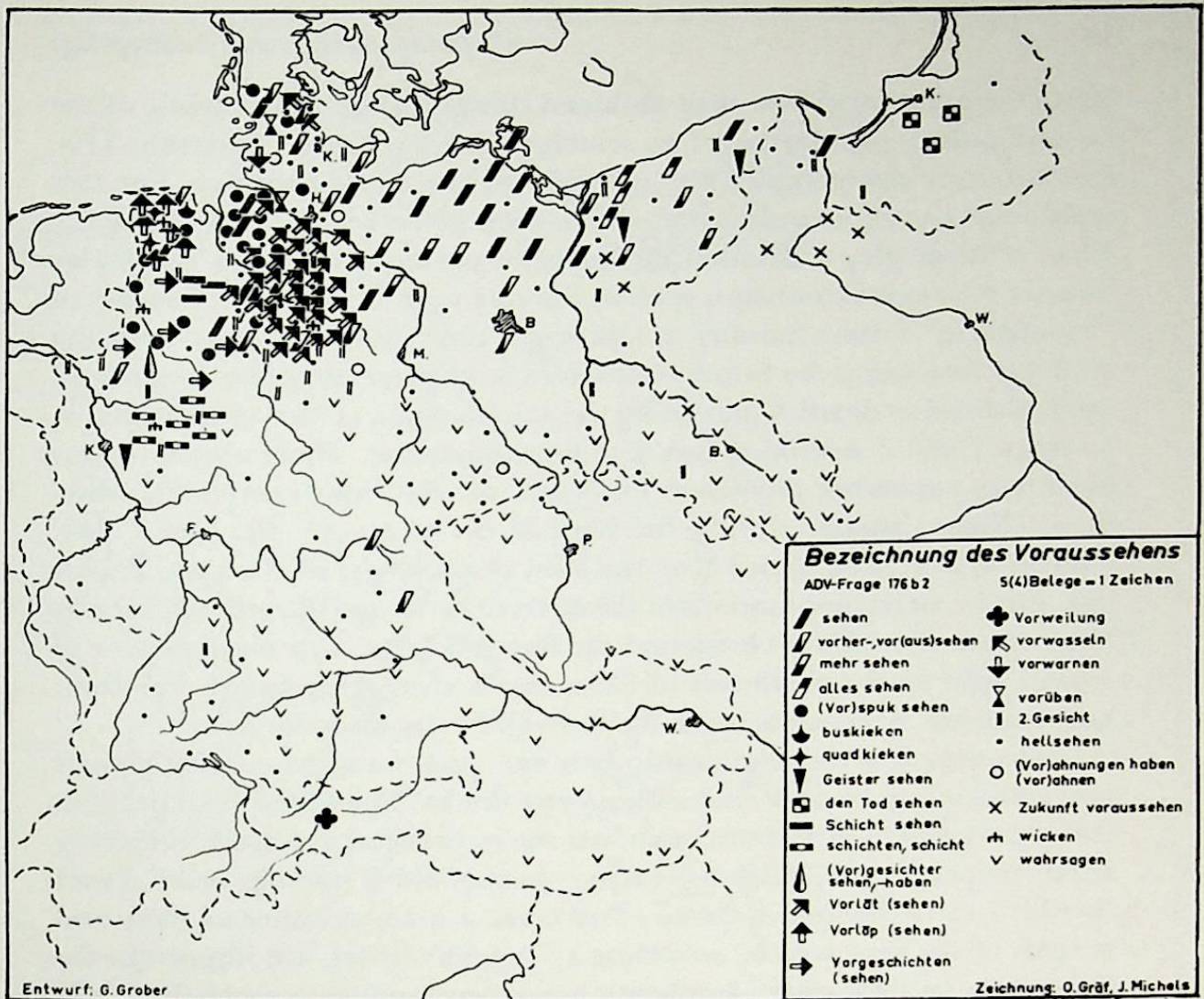
a) Are there certain persons who are considered capable of foreseeing future events? What are such persons and such abilities called? When must they be born to obtain this quality? Do such people have certain outward characteristics and of which quality are they?

Maps 1 & 2 represent the answers given to the inquiry regarding the types of seers and foreseeing. By contrasting striking marks to less striking ones the area of spontaneous foreseeing was more accentuated than answers which attest to only a vague knowledge of the future. This difference is based upon the analysis of the implications of the names and of additional information. For instance, there are practically no reports of spontaneous foreseeing by persons born on a Sunday with a new moon: "Fronfastensonntag." "Hellseher" (clairvoyant) is a name with varying implications. "Wicker" and the like may also be fortune-tellers in everyday language. Just the same can be said of the corresponding activities: "hellsehen" (to be clairvoyant), "wicken," "wahrsagen" (to tell fortunes). The name "zweites Gesicht" (second sight) is known all over Germany and does not concentrate in a certain area. If we compare maps 1 and 2, we may see only minor deviations. Both maps show that the northwest of Germany is the main area of visionary foreseeing, extending along the coast of the Baltic Sea



Map 1. Distribution of seers

towards East Prussia in a narrowing belt. Collections of legends and reports of other European countries show that the German area is part of a "magic circle" including the Netherlands, Denmark, Norway, Sweden, Iceland, Scotland, and the Orkneys, partly or as a whole. The maps show that in Germany the main area is the region between the rivers Ems and the lower Rhine in the west and the Elbe in the east. There are many reasons for the assumption that colonists coming from western Germany to settle along the Baltic coast eight centuries ago may have brought the gift of second sight with them. The gradual decreasing towards the east corresponds to the route the colonists took. Concerning the completeness of the extension of the answers on both maps, a restriction must be made. They do not show the spontaneous experiences of the future in the Alps, which according to Karl Ilg can be taken for a "magic chain," comparing it with the magic circle of northern Europe. One cause for this lack might be the relatively



Map 2. Various types of predictions

small number of answers in Austria (Switzerland is not included by ADV). The main reason is more likely to be seen in the fact that in the Alps, forehearing, the so-called “Künden” (announcing) is more frequent than foreseeing, which the ADV questions mainly refer to.

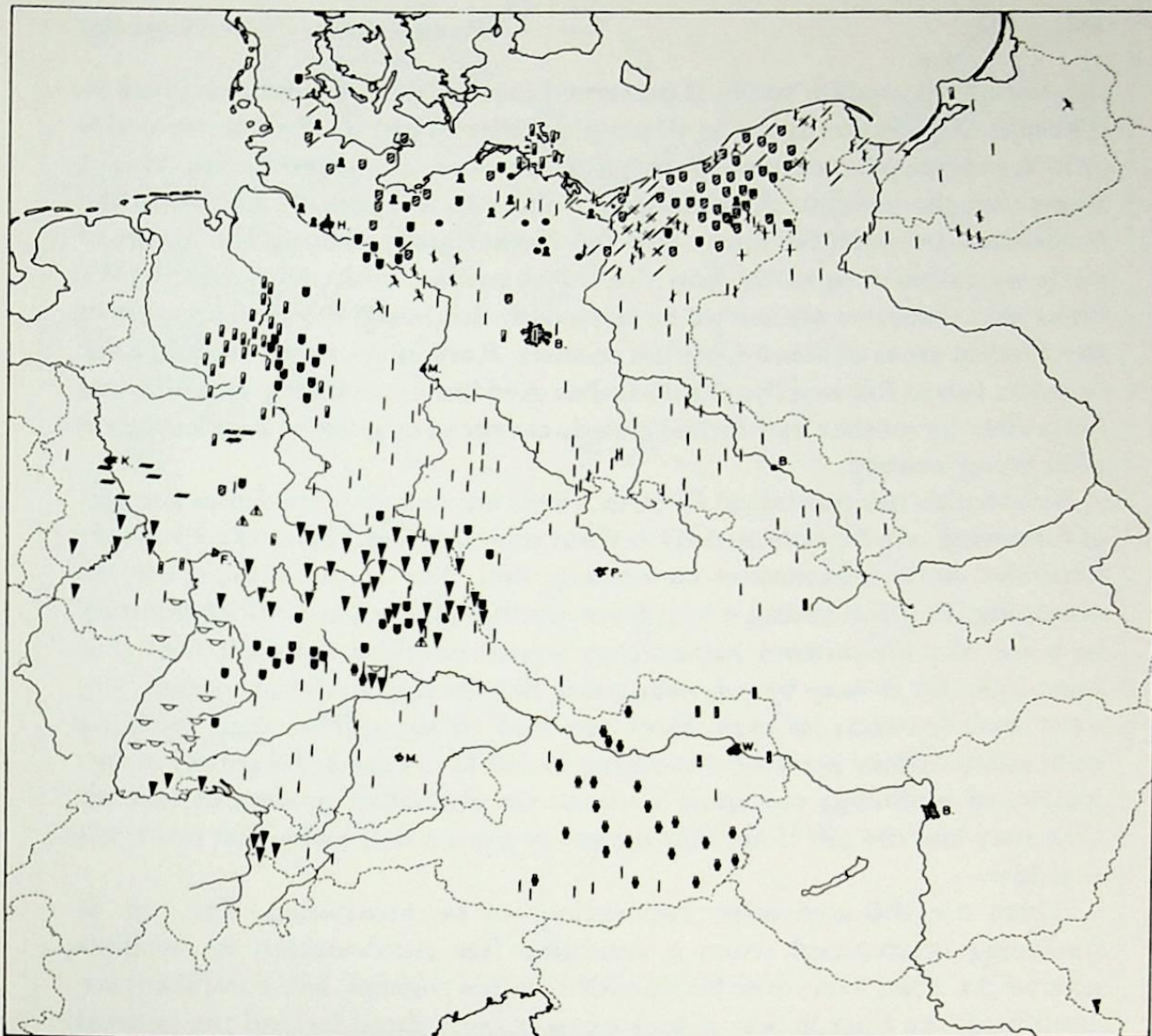
Concerning the extension of names both of foreseers and foreseeing, our question of the parapsychological truth of second sight is easily answered. Regional differences and spreading in more or less extension areas are characteristic of all phenomena of folk culture including popular belief, no matter whether it is real or fictitious. In Finnish folk-narrative research, many examples have been related which show the extension of motives in fairy tales, legends and popular belief in all parts of the world. The mere fact of regional spreading is no proof at all for the “true core” of second sight.

The impression that seers and their reports made on their neighborhood

led to the question of how they obtained this gift. It is characteristic of the conceptions of popular belief to search for explanations. Question 176c selects out of this complex the question of the seer's birthday. For this question, some thousand answers have been given represented in map 3. Most of them give a detailed birthdate of persons born on a particular Sunday who are clairvoyant, such as Sunday with New Moon, Sunday of "Fronfasten," Trinity Sunday, or Christmas time. As mentioned above, the ability of foreseeing the future characteristic of these persons is vague and rarely defined in detail. Concerning the actual region of second sight shown on maps 1 and 2, a striking fact is to be emphasized. There are numerous birthdates appearing anywhere from east to west, for example St. Matthew's Night, Sunday during the hour of divine service, St. John's Day, Christmas Eve, New Year's Eve, the hour of midnight on Sunday, Thursday, Friday, and combinations of the dates of birth and christening such as "born on a Thursday, christened on Sunday." But the main region of second sight in the northwest of Germany is strangely enough free from such evidence. The explanation for this will be discussed later.

Our question of the relationship between traditional popular belief and precognition can be answered without any doubt. The widespread belief in the importance of birthdates manifests the impression visionary foreseeing makes on people; yet, it belongs entirely to the field of popular belief. Proof for this can be offered in detail. There are a great number of days and periods of the year which, according to popular belief, are important for those born on these dates. Implications concerning future events basically take two directions: on one side, misfortune of any kind, as for instance, illness, early or unnatural death, inclination to bad conduct or crime; on the other side, the gift to see spirits and future events. Dates of this kind may also promise luck. In addition, we find connections between birthdates and figures of popular belief. Witches, for instance, are said to be born in May, especially on May 1st. Vampires, "Truden," are born under a new moon, werewolves on St. John's Day and during Christmas time, nightmares on St. John's Day. Witches, nightmares and vampires are determined also by special qualities or events during or after birth. Considering these data, there is no need to add that all "Vorschauer" (visionaries) Karl Schmeing came across are born on days independent of these dates.

Besides dates of birth, the ADV material also contains information relating the acquisition of the gift to other conditions of birth. So we frequently find the information that a seer was born with the skin of the placenta covering his head. This attachment of the embryonic skin has granted the gift of prophecy for the newborn child since ancient times. In accordance with the concept of spells utilizing parts of the body, the skin of



Geburtstermine von Personen, die Zukünftiges sehen können
(nach ADV-Fr. 176c)

- | | |
|--|--|
| — Matthiasnacht | Sonntag |
| — Matthiasnacht, Zwölfte Stunde | ⊥ Sonntag geboren und getauft |
| ● Ostern vor Sonnenaufgang | ⊥ Sonntag, Zwölfte Stunde |
| ▲ Johannistag | ⊥ Sonntag während des Gottesdienstes |
| ▽ Advent | ● Sonntag bei Neumond |
| ● Neujahr, Silvester | ⊥ Sonntag, der zugleich Jahreserster ist |
| ● Termine der Weihnachtszeit außer Neujahr | ⊥ Dreifaltigkeitssonntag |
| ▽ Fasten(sonntag) | λ Donnerstag geboren, Sonntag getauft |
| △ (Sonntag) an hohen Festen | λ Donnerstag, Zwölfte Stunde |
| ● Neumond | ⊥ Donnerstag vor Sonnenaufgang |
| / Zwölfte Stunde | + Sonntag vor Sonnenaufgang |
| × Zwölfte Stunde geboren und getauft | |
- (Auswahl, 3-4 Belege = 1 Zeichen)

Entwurf: G. Grober

0 50 100 km

Zeichnung: R. Helm

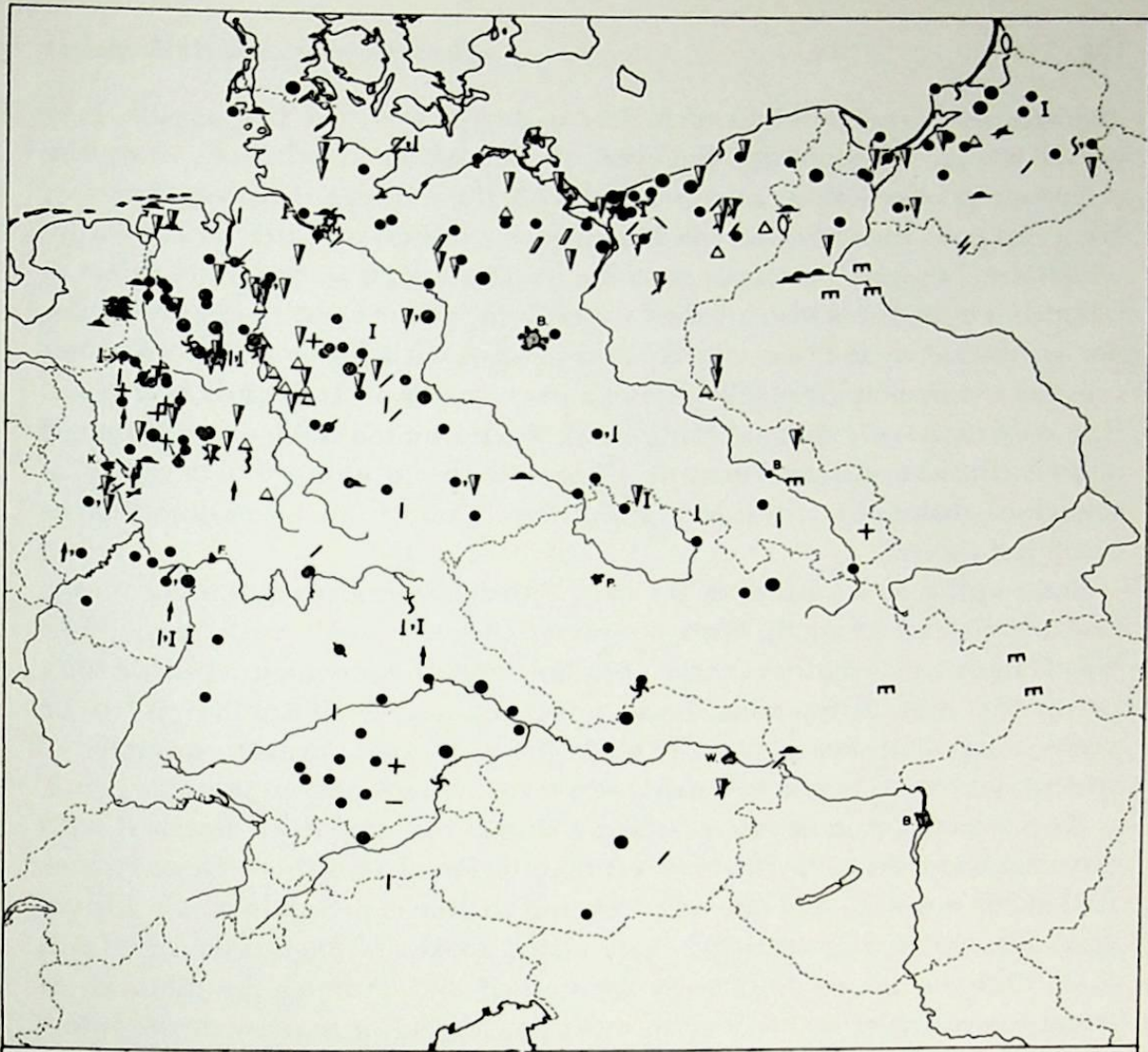
Map 3. Time of birth of persons able to foretell the future

the placenta is used for spells. If preserved carefully, it will give good luck to the child and, furthermore, to all people possessing it; it offers benevolence or luck in legal proceedings, or the gift to prevent or extinguish fire. Map 4 shows that the belief in the influence of this cap is especially known in the borderland between Germany and the Netherlands. Among the marks of birth we rather frequently find the information: "born with teeth." We know that vampires are said to be born with this mark. We find answers of this kind in areas of Slavo-German contact. Rare answers, given only once or twice, run as follows: the child's father died before its birth; the child was born after its mother had already died; clairvoyant persons suckled again after being weaned.

Besides this interpretation of birth, there are concepts held that the gift of foreseeing can be obtained by certain modes of behavior. Map 5 represents the ADV information concerning this. The most familiar way of obtaining the gift is taking it over from another clairvoyant being; this may be a use of a clairvoyant person over whose shoulder the expectant seer must look. Or it may be a howling dog in which case the expectant seer must look between its ears. Dogs are said to see spirits; their howling indicates that they perceive something invisible to others. To get rid of this quality of foreseeing one must undergo the described process in reverse. One may lose the gift if another person or even a dog looks over one's left shoulder.

There are still two other conceptions to be mentioned. The gift of foreseeing is obtained when a candidate for confirmation in walking around the altar, looks over his shoulder. In this concept, two complexes are combined: the interdiction of looking over one's shoulder and the general importance in popular belief of walking around the altar, for instance, during weddings, burials, confessions, christenings, pilgrimages, confirmations. The ADV questionnaire contained no special question concerning the acquisition or loss of the gift, but the information obtained from legends is abundant. These are represented in maps 4 and 5; in map 5 there appears only one occurrence of looking over one's shoulder during a funeral procession. According to legends, the gift of foreseeing may be obtained by looking through the hole of a coffin nail, by looking through the orbits of a skull, or by watching a funeral procession through a fissure in the door. If we return to our question: actual precognition or popular belief, there is no doubt that all information we obtained pointed exclusively to popular belief.

Answers given to ADV question 176d (indicated on map 4) present still more concepts concerning the seer's personality. Among the characteristics represented, we may distinguish two groups: elements of popular belief and



Merkmale von Personen, die Zukünftiges sehen können (Auswahl)

(nach ADV-Fr. 176d)

- | | |
|--|---------------------------------|
| ● introvertiert nach Wesen, Aussehen (Blick), Verhalten | ▲ mit „Haube“ geboren |
| ● eigenartig in Wesen, Aussehen (Blick), Verhalten | △ Augenbrauen zusammengewachsen |
| blaue Augen | △ Augenbrauen fehlen |
| ┆ tiefliegende Augen | ∕ zweierlei Augenfarbe |
| I große Augen | ∩ rote (kranke) Augen |
| — blondes Haar | ∪ rotes Haar |
| + blaue Augen, blondes Haar | ∩ rote Augen, rotes Haar |
| / blaß, kränklich | m mit Zähnen geboren |
| \ hager, dünn | ○ Besonderheiten des Ohres |
| ▽ Begleitumstände des Sehens werden erwähnt
(Last, Unruhe, Zwang) | † unheimliches Aussehen |

Die Zeichen |, —, /, \ treten auch in Verbindung mit anderen Zeichen auf

Entwurf: G. Grober

0 50 100 km

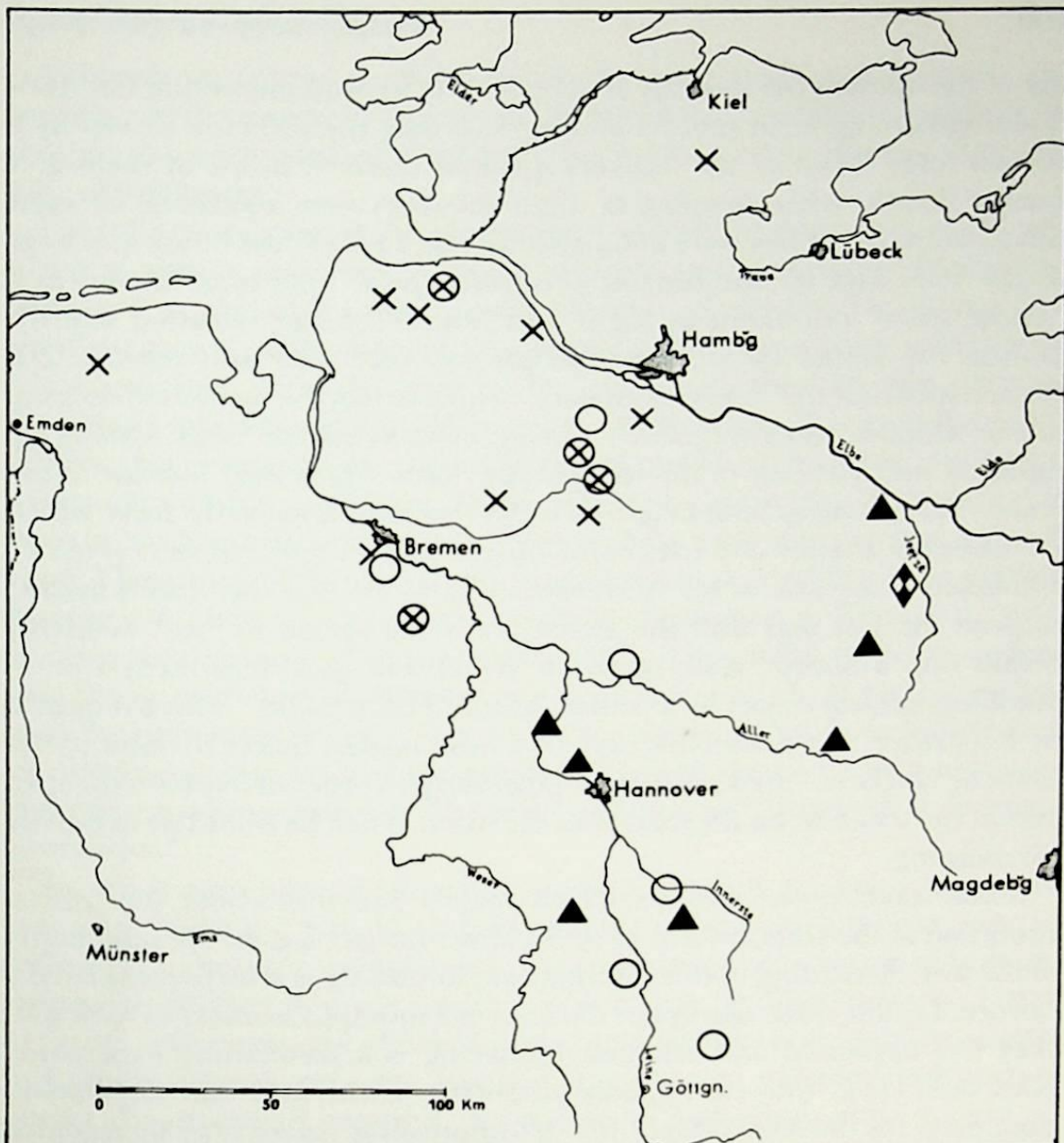
Zeichnung: E. Franke

Map 4. Characteristics of persons able to foretell the future

characteristics independent of it. Let us begin with the first group. Eyebrows grown together are believed to be marks of witches, vampires, nightmares, werewolves, and persons with the evil eye. Missing eyebrows are a rare and thus striking mark indicating special qualities of the owner which are, however, not known to me in detail. Red eyes usually refers to bloodshot eyes but is also applied to the color of the eyes. Eyes of red color are attributed to demons, witches and persons with the evil eye; bloodshot eyes are a conspicuous mark of cruel and evil persons. In popular belief red hair is an extremely disqualifying mark; therefore the birth of a red-haired child is considered a punishment. Persons with red hair are believed to be malicious, dishonest, irritable, and faithless. Traitors are often described as being red-haired.

Concerning peculiarities of the ears, unusually large ears and ingrowing earlobes are mentioned; both characteristics are dealt with in popular belief. In overlooking the marks popular belief is concerned with, we may point out that disfiguring marks are dominating. This fact is to be understood as an expression of the frightening, inexplicable character of second sight and the generally disastrous role visions play in popular belief.

The second group of characteristics shown on map 4 is concerned with physical and mental qualities of a different type. In northern Germany we find an accumulation of answers referring to blue eyes and fair hair. Often, qualities such as pale and sickly looking are spoken of; big, sunken eyes and lean, thin stature are frequently mentioned, too. Among the qualities of mind, represented by circles, we must pay special attention to the information attesting introverted behavior and strange character. In this area, many different answers have been summarized, for instance: inward looking, shy, earnest, piercing, dreaming, strange, extraordinary, different from ordinary people. Answers of that sort are given in southern and eastern Germany too, but they concentrate in the area of second sight known to us from maps 1 and 2. There is no doubt that most of these answers indicate a certain type of person we frequently find in northern Germany. Karl Schmeing confirms in his description of Low German foreseers that they usually represent the typical features of the race in this country, above all those mental qualities which are characterized by integration turned inwards and a schizoid disposition. According to Schmeing, second sight is a hereditary predisposition. This corresponds to the results of parapsychology. This field of science proves by experiment that there exist more or less distinct gifts appearing in more or less capable test persons. In map 4 we find a good number of spontaneous answers, that is, information not specifically requested, regarding circumstances during the visions. These inform us about the psychic state immediately preceding the vision and



Die Gabe des Zweiten Gesichtes wird erworben:

- von einem Hellsichtigen
- × von einem Hund
- ⊗ von einem Hellsichtigen und einem Hund
- ▲ durch Umsehen hinter dem Altar bei der Konfirmation
- ◆ durch Umsehen während das Leichenzugs

Map 5. Various sources of acquisition of the gift of second sight

about the opinion the seer has of his gift. The persons answering the ADV questionnaire agree in reports and legends that the seers are driven by a certain force. Most of the answers speak of anxiety. Some of them give further details: when sleeping at night the seers were awakened by some unknown power. They were compelled to rise, to leave the house and to go to the road and let the funeral procession pass. One man known as a "Spukgucker" ran about at night and returned home sweating heavily. During the actual vision, these people are very pale and restless. Zur Bensen speaks of the "feverish anxiety" which drives the seer out of doors or to the window, most frequently during moonlit nights, after waking up suddenly and yielding to the inexplicable force which may increase intolerably. According to Strackerjan, it is the very resistance to the force which increases the anxiety and may cause illness. Many reports of seers given by Schmeing as a result of his field research show us that the visions usually surprise the seer and that the anxiety of being forced to "see" suddenly breaks into a normal state of mind. We obtain good information in an autobiographical report by a pedlar, called "Pötte-Jakob," which is quoted by Kleibauer: sometimes this man had been restless before a vision; other times he had been lifted up out of a quiet sleep in order to foresee with open eyes at the window, on the road or in the wood. Then he would sleep quietly till morning.

Some spontaneous answers which map 4 provides about the mental condition of the seers, inform us of the effect the gift has on the personality of the seer. According to this information, foreseeing is always considered a burden. I quote some examples: the seers feel unhappy because of their gift; they feel oppressed and anxious; foreseeing is a tormenting experience. Karl Schmeing, too, calls special attention to the fact that depressions dominate, for the seer is afraid that his oppressing visions may be repeated or may be found out. He speaks of a foreseer who fought against his gift and of a woman who could not sleep any more because she was brooding about it. On the other hand, Schmeing warns of the partiality of the conceptions implied by literature and ADV. Many seers consider their gift an absolutely natural thing. I quote Schmeing: "The foreseers known to me are without any exception quiet, earnest people who never behave theatrically." Fr. Kammeier quotes autobiographical data of a seer which agree with this result: He was never oppressed or frightened by his frequent visions although he was convinced of their truth; he even had a distinct and realistic view of life and did not consider his gift worth pondering about. Thus we recognize that the attitude of the seers towards their gift depends on their individual character. But the gift of foreseeing is more frequently considered burdensome than taken for granted.

Although we cannot exclude clichés in conceptions and phrases, oppression and force seem to correspond to the actual condition of such cases and give the impression of a spontaneous happening connected with the drive of fulfillment.

The information about the burdensome and compulsive nature of foreseeing as well as information about physical and mental characteristics attributed to the seers bring up the question of personality types. The questionnaires of ADV offer only little information. Literature referring to actual meetings with the seers is especially valuable. In this context, Schmeing's writings are especially worth mentioning. "I was always surprised at the versatility and the original personality of the seers," he states. "They are natural, intelligent people with common sense. It is only the more or less frequent visions that create in them a certain peculiar state of mind. There are healthy and ill ones among them. According to the poetess Annette von Droste, seers have no marks of extravagance. Even extremely sensitive seers are normal and natural persons. They differ from the society they live in neither in intelligence nor in morals, and there are no preferences regarding age or sex, either. They are not expelled from society but esteemed according to their personality although their visions may cause fear and occasional slander. The gift itself has no pathological features whatsoever."

Schmeing succeeded in pointing out that all seers he was acquainted with were "eidetics," that is, persons who see things which do not exist in reality, in a perfectly natural way. No mere imagining but real organic seeing is performed. Certain types of eidetics can be differentiated. There are more eidetics among children and young people than among adults. Eidetic phenomena may give essential impulses to painters and writers during the process of creating. According to Schmeing, second sight of foreseeers also depends on such an actual seeing of pictures, the only difference being the connection with the future.

This relation to the future, the basically parapsychological phenomenon, is the main subject we have to deal with in the second part of our paper, which is concerned with the visions themselves as they are described in reports and legends.

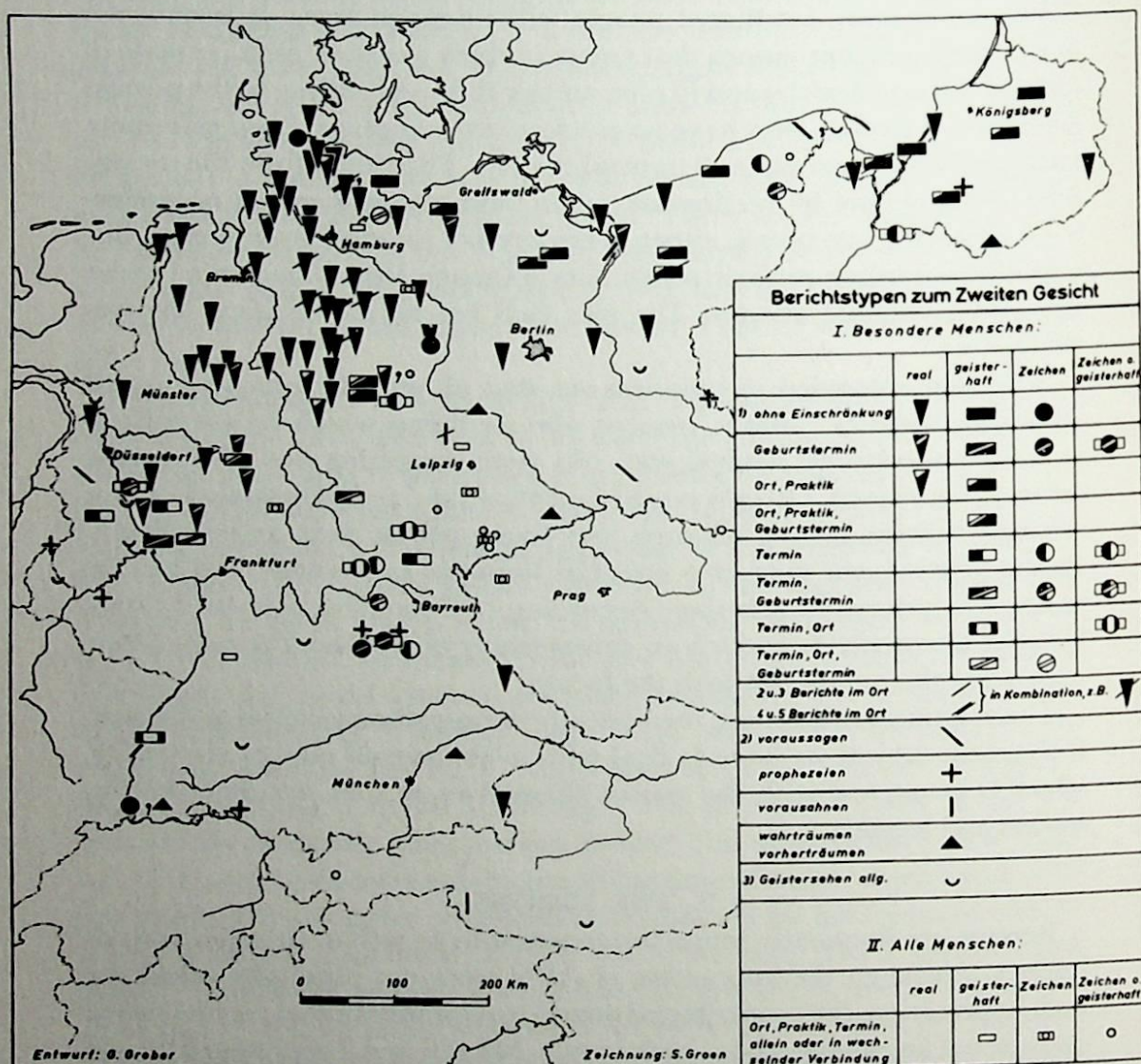
II—THE VISIONS

Reports are frequently found in monographs as well as in collections of legends. Although the guarantees of ADV were not especially asked for such information, they contributed nearly two hundred short reports based on personal knowledge about such events. Maps 6 and 7 represent all such reports made in Germany and Austria. One of the two maps shows the

different kinds of visions, the other one relates their contents. The different kinds of visions (map 6) are classified by various categories.

First category: Future events can be seen by all people or only by persons endowed with a special gift. As ADV question no. 176 only requests the visions of seers, the few data concerning "all people" are thus not interesting for us. The data concerning the seeing of spirits refer to present events and are therefore "wrong."

Second category: Future events are experienced while awake, usually as transsensual visions or in other ways of precognition, such as by having presentiments or by prophecies.



Map 6. Reported types of second sight

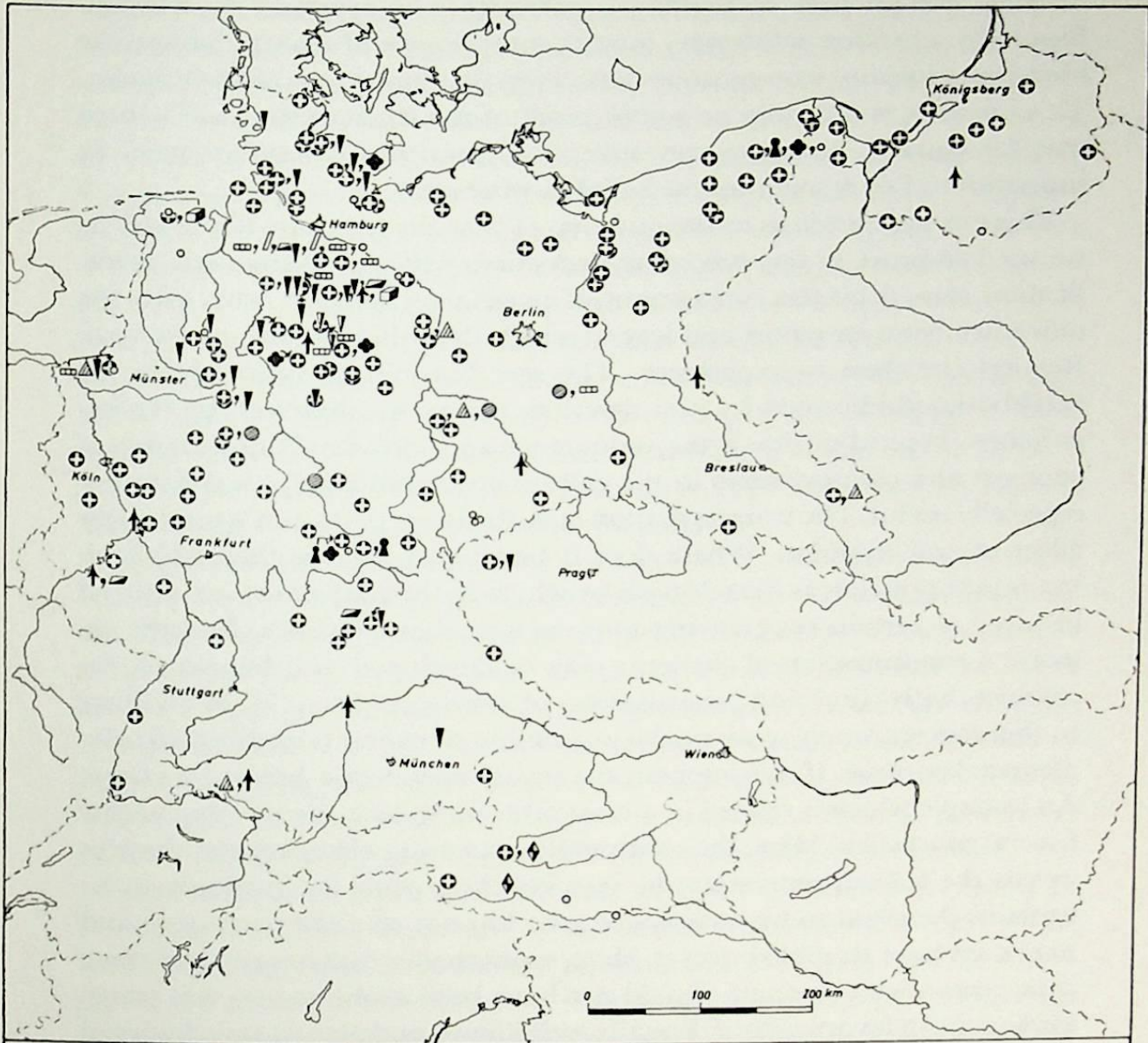
Third category: Future events experienced as a transsensual perception appear in various ways: a) the future event is seen in its whole progress or in its substantial parts exactly as it will come true later on; b) the future event is experienced as an apparition of ghosts: persons who are to die kneel in front of graves, a corpse ascends to heaven; personified death walks toward a house; c) future events are experienced by signs: a fiery coffin is noticed on the roof of a house; lights move over a place where misfortune will occur.

Fourth category: The seers have visions of the sort described above, either under certain conditions or without them. Among these conditions, the least restrictive as far as spontaneous activity is concerned is induced by the date of birth because it permits a spontaneous vision, whereas dependence upon certain dates for visions (Christmas Eve, "Fronfasten," New Year's Eve, St. Matthew's Night) or upon certain places and manipulations (crossways, stopping the clock, looking over one's shoulder) excludes spontaneous foreseeing. Visions of that kind belong to foreseeing provoked on purpose, as is testified in the Swedish *årsgang*. Map 6 shows that foreseeing by signs is especially known in the upper Main area, connected with persons born on "Fronfasten" Sunday. The area of second sight we learned from the names of seers is dominated by realistic and haunted visions. The latter is characteristic of the hinterland of the Baltic, the first for the main region of second sight, that is for Westphalia, Lower Saxony and Schleswig-Holstein; in these areas, sometimes two or more reports are given by the guarantees for one single village. With regard to the parapsychological problem, the spontaneous foreseeing of real events coming true later on, the so-called "Vorgeschichte," is most interesting. Karl Schmeing thinks he found the explanation for this by pointing out an eidetical disposition of the seers. The precognition of the future is only one possible interpretation, which can be added to the visions. Popular belief compensates missing causality by finality, elaborating the interpretation of the future systematically. In 1954, Karl Schmeing pleaded for the following point of view even more to the point: As there is no foreseeing without fulfillment, the foreseer emphasizes events like death, war, fire, which are likely to happen more or less frequently and are thus fulfilled with more or less certainty. This contention of Schmeing has been refuted by well-known scholars. Dealing with Schmeing's book of 1937, Peuckert writes: "I do not dispute that foreseers are eidetical persons. But this fact does not suffice to call second sight an eidetical seeing and to explain it as a physiological event. These explanations do not correspond to the mental background. The eidetical person sees pictures. It is necessary to comprehend the 'film' as a second reality; only in this context, we may speak of second sight. Where there is no knowledge about the second reality, there is no second sight and no 'Vorgeschichte.'" To Schmeing's book of 1954, G. F. Hart-

laub gives the following interpretation: "I am sure that eidetical projection is important for all those phenomena and I think having discovered this fact is an important step forwards. The only question is whether everything is explained by this motion towards the inner experiences of man. The eidetical function only describes the 'how,' the subjective part of the origin of visions, not the 'why,' their special implications. It does not explain why certain persons in a certain place and at a certain time have just these visions and no others. Visions sometimes contain striking truth, the explanation of which is sometimes hard to find or even induced intricately. It is impossible to call every fulfillment of the vision accidental, and the author's statements concerning the 'probability of the improbable' fail to explain the main point."

The study of the reports and legends in the area of second sight makes possible a further remark in order to refute a causal function of eidetics: In the same area, visions depending on eidetical dispositions are combined with auditions, occasionally with smelling and tasting, perceptions which indicate future things as well as seeing, although not as distinctly and effectively. In his *Psychologie des Aberglaubens*, Konrad Zuckerk pointed to the common basis of these experiences as being presentiments, that is spontaneous, entirely unprovoked and unexpected feelings. These cannot be denied altogether and are therefore not allowed to be associated with superstition. According to his observations, the interpretation of second sight in northern Germany also differs from popular belief in general. As for me, Zuckerk's interpretation of second sight as a presentiment especially based on vision and his stress of the difference between second sight and superstition correspond to the real core of this phenomenon: Above all, I mention fulfillment of visions convincingly confirmed; the sudden occurrence which makes it inescapable; the symptoms of disposition and the hereditary character of the gift; the natural evidence or the suffering seriousness which characterize the seers according to their psychic disposition, which makes them take their gift for granted.

The summary of the contents of the visions (map 7) shows that the foreseeing of casualties is dominating. The share of mischief amounts to 84%. Names like "buskieken, quadkieken, vorwarnen, Totenseher, Feuerseher, Schwarzseher" show this tendency. The impulses which change presentiments into actual visions are anxiety and worry. This fact corresponds to the share of 82% stated by Bender for affect-negative contents of psi, the main part of which is occupied by telepathy, clairvoyance, and precognition. We must especially mention the intensity of the belief in foreseeing. Henben for instance points out that in Westphalia everything, even a trifle, has its "Vorgeschichte." The fulfillment of visions is considered



Inhalt der Vorgesichte

nach Berichten zu ADV-Frage 176

- | | | | |
|-------------------------|-----------|---|-----------------------------------|
| ⊕ | Tod | ◆ | Hochzeit |
| ! (inverted) | Brand | ↑ | Krieg |
| ▬ (with cross-ticks) | Eisenbahn | △ | Unglücksfälle |
| ▬ (with diagonal lines) | Auto | ◇ | Schicksal der Seele nach dem Tode |
| ⊙ | Geburt | ● | Sonstiges |
| ⊠ | Bauten | ○ | Zukünftiges allgemein |
| ∥ | Straßen | | |

Map 7. Content of predictions

to be so certain that ecclesiastical intercession is necessary to avert it. Especially when fire is foreseen, many conceptions and manipulations like transformation into trees or stones have been developed to avoid fulfillment. This intensity is certainly no sound proof of the truth of the vision, for it may be equally strong in conceptions of traditional popular belief or superstition; I only mention the belief in witchcraft.

This example leads us to the question of how the true core of the visions we tried to prove in our preceding deductions suffers a change and modification caused by the conceptions of popular belief. We start with the difference between report and legend which the collectors know very well. Reports are close to experience. The seer himself or somebody in his neighborhood informed by him describes the event impressed by the experience. Typical of this is the uniqueness and individual appearance of contents and circumstances in the collections. Autobiographical data are especially useful. The transformation of authentic reports into legends is an effect of oral tradition. Where does it begin and what is the result? An important principle is the selection by which individual marks are omitted in favor of certain re-occurring motives and characteristics. In some regions, a concentration of elements may be developed as it happened, for instance, with "fire" and "construction of a railway" (map 7). In addition to this concentration, a particular regulation of contents and stylistic elements takes place. If this happens the report may nearly become a cliché. An example which is related in almost all collections is the meeting with a funeral procession. Here, the continually appearing elements are: the seer avoids the funeral procession; he watches the passing by in paralysis; he explains the event to his companion who has not seen the procession and may even have stumbled over it. Here, spontaneous experience—and there is no reason why its origin should not have been spontaneous—has transformed into a favorite motif. Equally well-known and almost as widespread are tales of a carpenter hearing the noise of sawing and of creaking planks which showed him that he would soon have to make a coffin. In the Alps, the ringing of bells can be compared with these motifs. If the perceptions are ambiguous, as, for instance, lights or knocking, rattling or other noises, they may grow exuberantly and adopt a great number of meanings: lights, for example, may announce death, building of houses, misfortune, construction of a railway; knocking may announce the falling of coffin planks, new buildings, birth, arrival of the physician (who knocks at the door), and so on.

The development of legends is strongly promoted by the force of fulfillment; the visions are connected with the so-called "Austun," which guarantees close attention to start with. The excitement is increased when

extraordinary things come true or when fulfillment takes place in spite of attempts to prevent it. A funeral procession is seen which deviates from the customary course or it is led by unusual or peculiar horses. All attempts to prevent those irregularities fail. The fulfillment occurs as foreseen. Most likely, additions are made to real visions and occasional inventions favor this pattern. Visions of one's own death are especially effective. There are extremely effective, very widespread and often varied types of legends developed in northern Germany. A farmhand sees a coffin standing on the floor. He cuts a lock off the corpse's hair in order to recognize the person who will die. On the following day, he discovers that he himself misses the lock. He leaves the farm, but his destiny is fulfilled. When visiting the farm a year later, he dies and is laid out on the floor. In this story, an original legendary element, the lock which has been cut off, is the real proof and shows the authenticity of the vision. Proofs like this I found only in legends which describe experiences depending on telepathy.

Sometimes visions and auditions are connected with regional motifs of legends. Divine services of ghosts, for instance, indicate persons who will die. Ghosts haunting a house cause noises of knocking which announce future events. For the motif "the hour has come, but the man has not," well known in the Alps, I found two contaminations with foreseeing. An interesting combination of the motif of the funeral procession and legends of persons haunting after their death is to be found in the collection of Schambach. It runs: Near the village of Edmissen, a funeral procession passes. The person who perceives it will have a casualty in his family.

Summarizing our deductions we may say that spontaneous reports of second sight are fairly frequently accepted and transformed by oral tradition. Map 6 may give some further information. This map may be interpreted as a pattern which shows the transformation from report to legend. From the main area of second sight towards its edges, a change can be observed. Spontaneity is restricted by dates, confinement to certain places, and manipulations. In addition to this result, map 3 shows that just the main area of second sight, where spontaneous reports are most frequent, is free from the connection with dates of birth which are characteristic of foreseeing in other regions. Dates, confinement to certain places, and manipulations are part of the conceptions of popular belief and elements of legendary tradition. The change of reports into legends appears on map 6 as a progress in expansion: the restrictions by traditional conceptions increase with the distance from the main area characterized by spontaneous experiences. This result, which is obtained by interpretation of map 6, however, must be modified. Genuine second sight visions may be experienced according to traditional patterns in the same way legendary events

are influenced by traditional conceptions; the experiences depend upon regional conceptions. The foreseeing of events by signs or in an apparition of ghosts represented in map 7 is certainly less distinct and more ambiguous than the visions reflecting "second reality," but the reports of the guarantees do not permit any doubt about precognition being also traceable in traditional motifs and symbols.

In my preceding deductions, I have tried to reveal the true core of second sight which is of interest to parapsychology. I based my work of dissection on the extension of the phenomena as well as on characteristic marks of the seers, the act of foreseeing and the visions themselves. At the end of my report, I would like to stress the fact that in reality we find a very closely connected combination of true core and traditional conceptions. The intensity of fictive conceptions concerning the obtaining and loss of the gift or legendary elements which stress the necessity of fulfillment may originate in a true core; genuine visions may become manifest in conceptions of ghosts and symbols. Each verbalization sets free a process of change in oral tradition which takes place with the necessity of cultural rules. This state of interlacing between real and fictive conceptions seems to be characteristic not only of the problem discussed but also of the research of paranormal phenomena in general. It makes its efforts both challenging and worth while.

DISCUSSION

HERBERT: I would like to ask two short questions concerning the earlier part of your very interesting paper. Question number 1: In the very comprehensive list you gave of paranormal phenomena in northern Germany, there was one rather odd omission, I thought: the phenomenon of the incubus type. Now, question number 2, which is rather more important really, and that is the very interesting maps you showed of what is called the magic circle. Regarding the magic circle, it was not very clear: Did they include the Baltic countries of Latvia, Estonia, etc.? The reason why I ask—at the Prague Conference in June this year, there was a long paper by Dr. Ilmar Soomere of Estonia relating many hundreds of cases which I've printed recently myself, in Latvia and Estonia, and I'm wondering if this is part of your magic circle.

GROBER-GLÜCK: The first question: omission of incubus type. There is no connection between second sight and incubus type.

HERBERT: In the earlier part of your paper you mentioned a very long list including vampires, etc., and this was the only thing you didn't mention.

GROBER-GLÜCK: Certain qualities are attributed to the seer of second sight and I have said that qualities which appear combined with the seer are combined also with other forms of popular belief, and in this direction I have mentioned vampires, etc. But that is only a comparison and I endeavored to say that these marks belong to popular belief in this point—the seer gets marks of popular belief; he has qualities of popular belief.

HERBERT: I think my second question is really more interesting, the magic circle.

GROBER-GLÜCK: Yes. The expression “magic circle” has been created by Peuckert and is a term that does not mean magic literally. But he has found out that there is a certain region above all in which second sight is known. Second sight—that means seeing real things as they actually happen later on. To this magic circle belong the countries I enumerated. I think I have mentioned Denmark, Scotland, Iceland, parts of Scandinavia, etc.

HERBERT: I just wondered if Estonia and Latvia complete the ring.

GROBER-GLÜCK: I have only referred to Peuckert in this quote.

KREITLER: You mentioned in your paper something that, if confirmed, would be of major psychological importance. You said that it was found that seers are highly eidetic. Now, since full-fledged eidetic capabilities are frequently demonstrated by children but rarely by grownups, your findings would change our views on eidetic capabilities. Therefore I would ask you for information. First, how did they test these eidetic capabilities? Second, did they take in their investigations to distinguish between the so-called eidetic capability, and a strong sense of imagery?

GROBER-GLÜCK: Would you repeat your first question, please?

KREITLER: How did they test for the existence of eidetic qualities?

GROBER-GLÜCK: I referred to the books of Karl Schmeing. He has done extensive and intensive field work in northern Germany. He had heard of second sight in his youth and therefore he intended to seek the truth regarding this phenomenon. He has spoken to many persons who were known to him and who were named to him as seers. He has published these interviews in two books, and in these books he has demonstrated his way of examining these persons in relation to their eidetic qualities. He has made real tests and I only can tell you of these two books. I myself have not done any tests, but I refer to them and I think that in Germany this fact was well known and recognized.

BHARATI: What worries me is that all the density in your magic circle is particularly strong in the area where the researchers came from, and since very few of them knew Latvian and Lithuanian, maybe they didn't get the information that is there.

GROBER-GLÜCK: There is a certain connection. If second sight is combined in an effective way with seeing a real fact, it must make a deep impression on the people living among the seers, a deeper impression than if one had only heard it related. Now, your third question: if there is real fulfillment. Each person who once had such a personal experience is convinced that there is truth in it. For instance, with someone in my family the gift has been confirmed, therefore I tend to believe that there is a true core in this. But I think that you have seen that I am quite conscientious to show where is a true core and where is popular belief. One must distinguish between them, and I am convinced that one must distinguish quite firmly, but I do think there is a true core. That is my opinion.

VAN DE CASTLE: My impression would be that this is an account of the popular belief and I think Dr. Kreitler would like to see, as many of us would, some objective experimental testing of the people selected to see whether this could be confirmed.

SKINNER: In terms of your core, I was interested in the relationship of that core and social stratification on the one hand. You said there was no difference between the experiences of men and women. How about social class? What relation exists between these phenomena and social class? And a more complex question: Does this core represent the little tradition which has persisted in spite of the spread of the major religions? For example, I know there is a distinction in Germany between the Protestant area and the Catholic areas. What does it mean in terms of the spread of these religions or other ideas which might have affected the responses of people to questionnaires? In other words, I'm interested in the sociocultural aspects of these phenomena.

GROBER-GLÜCK: I only can refer to the field work of Schmeing, and he has pointed out that neither sex, age nor profession has any influence on these phenomena. And I may add that there are also Protestants in northern Germany, and, for instance, in Austria where you have the phenomenon of hearing, there are Catholics. There is no influence by the practice of confession.

WALTER: This again is an extremely interesting example of very hard field work by people who worked really very hard in the country. Now recently I was in Hungary and in Poland. Both those are communist

countries. Now in Soviet Russia religion is officially prohibited, but there are a few churches open and young people go who wish to and some old ladies who wish to go, do so, and the Soviet government is against any superstitious belief. But in southern Hungary, I was told by my close friends of people with exactly the sort of ability that you described, second sight—foresight and prophecy. There were cases reported to me by my friends, and I can assure you that in southern Russia and in southern Hungary there were the same reports regarding the same people without reference to profession; most of them were academics; some were just ordinary people in villages. I speak a little Russian, and this was very impressive to me that in that country where there is almost a total prohibition of any superstition, my friend said, "Oh yes, that man there, he sees the future quite frequently." And it's exactly as you say. He has a sort of seizure, a sort of trance state in which he has foreseen sometimes small events, sometimes crucial events, in that region. And that's not very surprising because in that region there is a mixture of religions—Mohammedan and what we call Cossack. One of the forecasts this man made was of a tragedy that happened to a steamer. This man had had a vision of a great steamer foundering in the dock, and a steamer was actually wrecked about three months later. Very rare and unique; he saw this very vividly and he told about it. So that even there, three thousand kilometers away, there are happenings of this type around that region.

VAN DE CASTLE: I'm going to take the chairman's prerogative and treat that as a comment about the universality of second sight.

WEINER: There are so many dream books that have been collected over the centuries in all cultures, it would be interesting some day to try to find whether the content of dreams has any universal kind of significance, and I ask one question along that line. When a dead person known to someone appears in that person's dream, is there a standard kind of interpretive reaction to that?

GROBER-GLÜCK: People have second sight while awake, in their normal state, not in dreams. I have only one such report, a clergyman, who described that he dreamt that the neighboring farm was burning in very high flames. He went to his windows and saw no fire. He told of his dream, and three days later the farm was burned. This report exists, but no other.

VAN DE CASTLE: If I could perhaps comment on the point of dreaming of dead people. My impression would be that in many "primitive" groups, dreaming of dead people would be considered a highly undesirable dream. Usually it means someone is coming from the spirit world to take you back with him. I'm not saying that that's a generalization that will always hold.

In our culture, a dream of a deceased loved one may be a source of solace or comfort in working through some of the grief reaction.

BOSHIER: As regards the southern and eastern people of Africa, it would be a very good omen to dream of a member of one's family who is now deceased.

VAN DE CASTLE: I agree that where there is a great deal of emphasis upon ancestor worship, then the appearance of ancestors in a dream would be desirable.

BOSHIER: Absolutely essential.

VAN DE CASTLE: But without the emphasis upon ancestor worship, it would be less desirable.

A DESCRIPTION OF DIVINATION AMONG THE SAKALAVA OF MADAGASCAR*

ROBERT W. SUSSMAN AND LINDA K. SUSSMAN

La divination est de tous les temps et de tous les peuples. Partout et toujours, l'homme, inquiet sur son sort, veut soulever le voile de l'avenir, comme aussi il veut percer l'obscurité du passé ou connaître le pourquoi des choses.^{1**}

The desire to know about events beyond the range of the senses has doubtless always existed. Such practices as fortune telling, mediumship, prophecy and divination have developed because of it, and with them, their techniques—from the use of crystal balls and playing cards to forked twigs and tea leaves.²

Man has always tried to learn about past and future events which affect his life and about problems over which he has no direct control. Divination is one of the many ways he has devised in his attempt to do this.

Divination is an integral part of the life and religion of the Malagasy people. Although it is now against the law, as are many traditional religious and medical practices, it is performed all over the island and is used in many diverse situations. The precise methods and means of interpretation, however, vary somewhat both between tribes and individual diviners. In this paper we shall describe the techniques used in Malagasy divination (*sikidy*) and some of the contexts in which it is performed. The description below is compiled from our own observations in the southwest of Madagascar (southern Sakalava tribe), and from those of Decary in the north-

* Our fieldwork in Madagascar was supported by Research Fellowship MH46268-01 of the National Institute of Mental Health, the U.S. Public Health Service, and by a Duke University Graduate Fellowship.

** "Divination is of all times and all peoples. Everywhere and always, man, concerned about his destiny, wishes to lift the veil of the future, as he also wishes to pierce the obscurity of the past or to know the why of things."

west (northern Sakalava tribe). Our observations were made in the village of Vondrove, near the Mangoky River, and those of Decary in Marovoay, southeast of Majunga. We shall point out some of the differences between the methods used in these two areas.

Divination is performed mainly in cases of sickness, in discovering the identity of thieves or in finding lost objects, in finding a wife, for advice about setting out on long journeys, for advice about crops or livestock, and in predicting future events. It is performed by a traditional doctor (*ombiasa*) in cases involving serious matters. However, many people know the techniques and perform divination themselves to solve minor everyday problems and to predict the future.

Traditional Malagasy religion is preserved mainly through the *ombiasas*. Although they are only part-time practitioners, they are highly prestigious and exert an immense amount of authority and influence over the people, who are willing to pay extremely high prices for their services. They are consulted for numerous reasons including religious rituals (e.g., circumcision and funerals), illness, and social and personal problems. They therefore exert authority not only in religious activities, but also in the social, medical, judicial, and personal spheres of life.

The Malagasy practice of divination by *sikidy* is thought to be of Arabic origin—as is the form of astrology practiced in Madagascar—and involves many Arabic terms. It is usually performed with the flat, oval, brown seeds of *Piptadenia chrysostachis*, a species of acacia. However, other types of seeds are reportedly used in some parts of the island where this particular species is rare. The procedure is quite complex: four columns of seeds are formed entirely by chance, eight more columns are derived from these according to precise rules, and new columns are sometimes derived from the twelve already formed. Deductions are then made about these configurations and result in the final interpretation. The following is a detailed description of the procedures used in *sikidy*.

DESCRIPTION OF SIKIDY

The diviner pours out all of the seeds, about 140 of them, which he usually keeps in a small sack. He then places a rock called *aramy* over a small fire. This gives off a resinous odor when burned. With his right hand he slowly mixes the seeds while he recites an incantation. Although the exact incantation varies from individual to individual, it always consists of certain elements: the diviner tells the seeds to wake up and to speak the truth for they know what man cannot know, and he names the founders of *sikidy* or describes how it originated. Decary (1970) reports some very long, elaborate incantations in which the place of origin and the circumstances under which *sikidy* was founded are described in detail and in which its

ancient origins are stressed. In the village in which we lived, however, the incantation was quite short and simple:

<i>Sikily*</i> , get up	Fohasikily
Wake up, do not play	Fohamaly, tsarafily, ka mikadokado
Speak the truth	Ka mivola raha tsy to
Walk in a straight line	Ka mikabeka be
Speak what you know	Ka mivola raha tsy tsire
If you are devious, you are alone	Lahavandy anao raiky
If you are truthful, we are together	Lahato antsika roa
<i>Sikily of Tsikiloly</i>	Sikilin'ny Tsikiloly
<i>Sikily of Lehimainte.</i>	Sikilin'ny Lehimainte.

It may be noted here that the term *sikidy* seems to refer to the method of divination, to the seeds used, and to a kind of personified spirit that knows what men cannot know. Colin (1959) reports that in addition to addressing the *sikidy* themselves, some diviners also address *Zanahary*, the Malagasy deity, and ask him to make the *sikidy* speak.³ The *sikidy* would then seem to act as a kind of liaison between man and god, or a means through which god can communicate with man.

After the incantation, the diviner randomly forms four small piles of seeds and places them before him from right to left (Figure 1). He counts by twos the number of seeds in the pile on the right. If there is an odd number of seeds in the pile, he takes one seed and places it before him; if there is an even number, he places two before him. He then determines whether there is an odd or an even number of seeds in the next pile to the left and takes out one or two seeds accordingly. The one or two seeds are placed underneath the seed(s) he drew from the first pile on the right. He follows the same procedure for the next two piles, from right to left. One column of four rows of one or two seeds is now formed. The basic pattern contains twelve such columns.

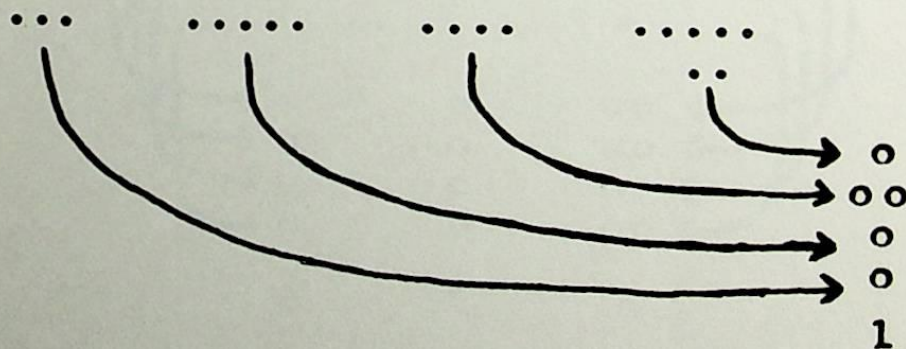


Figure 1. The formation of the first column.

* In the Southwest, the term *sikily* is used instead of *sikidy*.

The four small piles are then returned to the remaining seeds, with which they are again mixed together, and the procedure is repeated to form another column of four. This column is placed to the left of the first column. The procedure is repeated two more times until four columns have been completed (Figure 2). The unused seeds are then placed in a large pile.

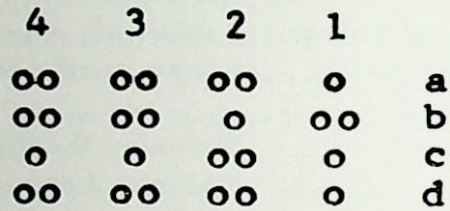


Figure 2. The first four columns, or "mother *sikidy*."

The first four columns, formed entirely by chance, are referred to by Decary as the "*sikidy-mère*," or mother *sikidy*: all of the succeeding columns are derived from them according to the following rules.

The fifth column is formed by adding the top row of seeds in columns 1 and 2 ($1a + 2a$). If the sum is even, place two of the unused seeds, and if the sum is odd place one, below and between these columns (Figure 3a). In the same way, add the second row of seeds in columns 1 and 2 ($1b + 2b$) and, according to the sum, place one or two of the unused seeds below the first row just formed. Follow the same procedure for the third and fourth rows of columns 1 and 2.

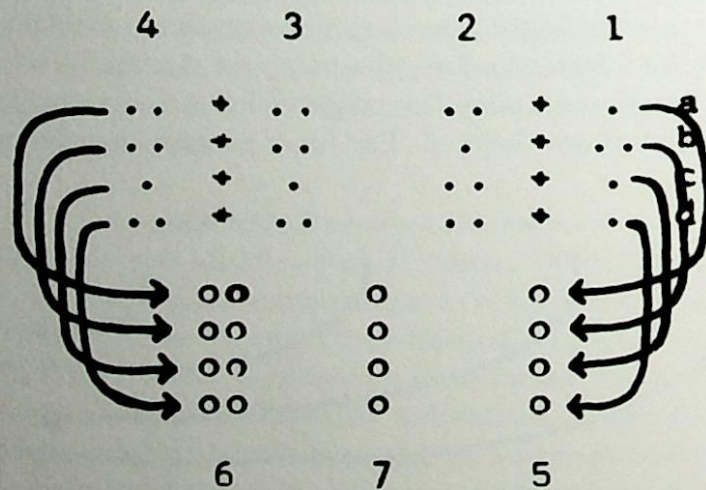


Figure 3a. Formation of columns 5 and 6.

The same process is repeated adding each row of columns 3 and 4 to produce a sixth column (Figure 3a). The seventh column is derived similarly by adding each row of seeds in columns 5 and 6 and is placed between these columns (Figure 3b).

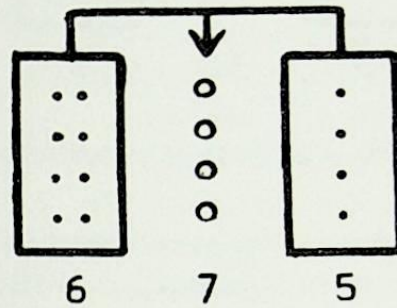


Figure 3b. Formation of column 7.

The eighth column is formed by adding, from right to left, each column of seeds in the first and second rows of the “mother *sikidy*” ($1a + 1b$, $2a + 2b$, $3a + 3b$, $4a + 4b$) (Figure 4a). It is placed to the left of column 6.

The ninth column is formed by summing each column in the third and fourth rows of the “mother *sikidy*” from right to left ($1c + 1d$, $2c + 2d$, $3c + 3d$, $4c + 4d$) (Figure 4a). It is placed to the left of column 8. Column 10 is derived by summing each row of seeds in columns 8 and 9 and is placed between them (Figure 4b).

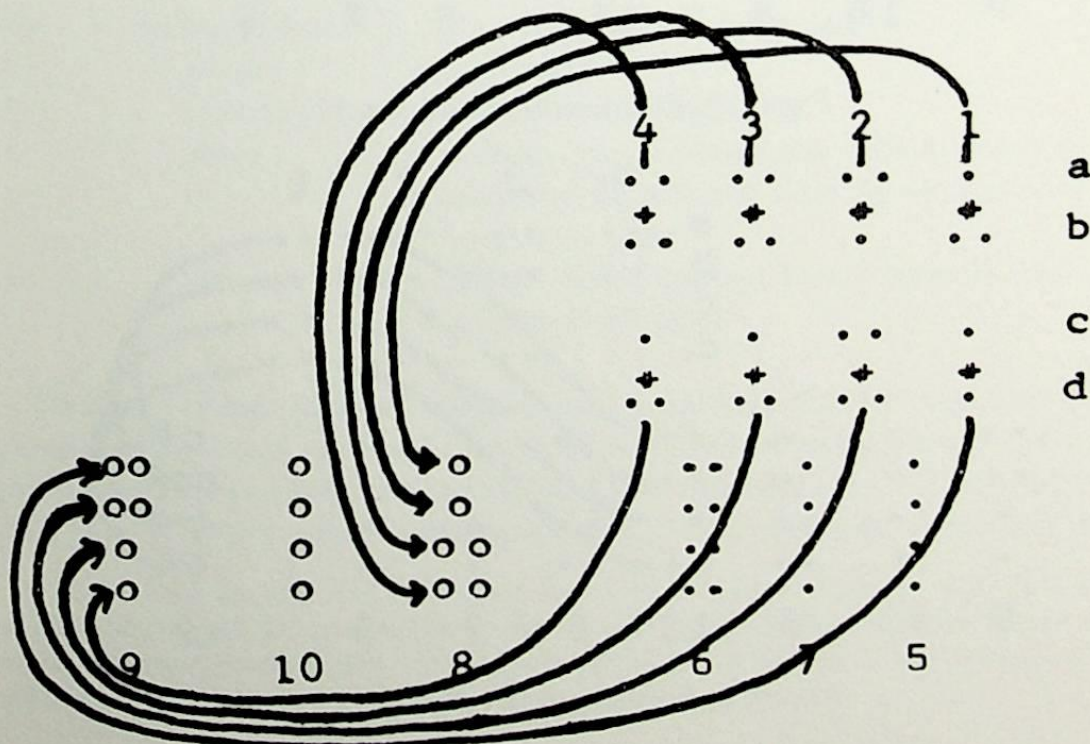


Figure 4a. Formation of columns 8 and 9.

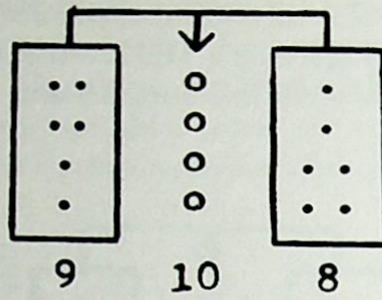


Figure 4b. Formation of column 10.

The eleventh column is placed between columns 6 and 8 and is formed by summing each row of seeds in columns 7 and 10 (Figure 5).

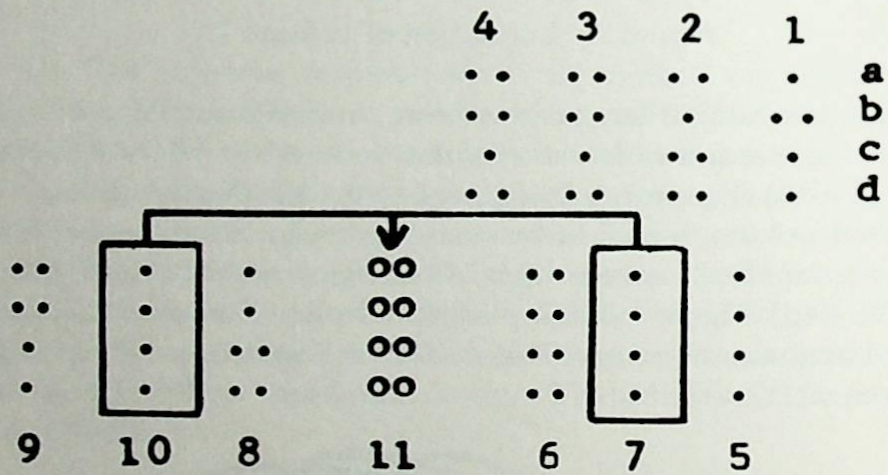


Figure 5. Formation of column 11.

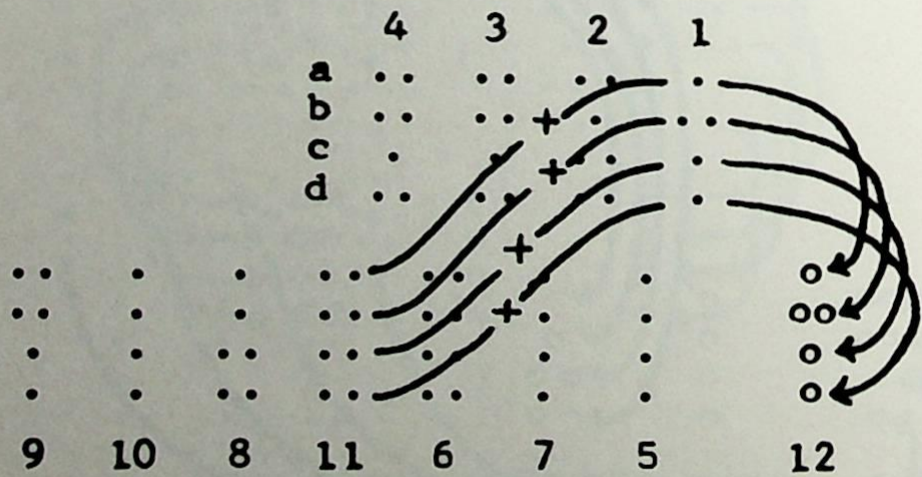


Figure 6. Formation of column 12.

The final column is formed by adding each row of seeds in the first and last columns (1 and 11). It is placed to the right of column 5 (Figure 6).

Each of the twelve columns of the *sikidy* signifies an object or person:

Column	Malagasy term	Object or person signified
1	<i>talé</i>	the client
2	<i>maly</i>	the object or situation in question
3	<i>fahatelo</i>	a man, thief, or caster of the spell on the client; literal translation: third
4	<i>bilady</i>	the earth, ground
5	<i>lalana</i>	the road, the path one must follow
6	<i>sohota</i>	father and/or mother (per Decary: trespasses; white men or masters)
7	<i>saily</i>	conversation, gossip (per Decary: people, inhabitants)
8	<i>haja</i>	food
9	<i>fahasivy</i>	the dead, ancestors (per Decary: someone closely involved with client); literal translation: ninth
10	<i>ombiasa</i>	the diviner, traditional doctor
11	<i>haky</i>	god
12	<i>ankiba</i>	house of the client or of a stranger

Each row of the "mother *sikidy*" also signifies something:

Row	Malagasy term	Object or person signified
a	<i>fianaha</i>	son or child
b	<i>manabily</i>	the question or problem
c	<i>alisay</i>	a woman—any woman, the wife of the man signified by column 3, or the woman one wishes to marry
d	<i>fahavalo</i>	accident, thief, enemy; literal translation: enemy and eighth

There are sixteen possible column configurations. Each is signified by a name, assigned to a cardinal direction, and ranked as either a slave or a prince (*andevon'ny sikidy* and *andrian'ny sikidy* respectively).^{*} The cardinal direction in which each configuration is found and the names of the

^{*} Our informant did not rank each figure as a slave or prince and took into consideration only the cardinal direction in which each item was found. We do not know, however, whether this was due to local variation or lack of knowledge on his part, since he was not an *ombiasa*.

configurations vary somewhat from region to region. Where we studied in the Southwest, they are signified as shown in Figure 7. Decary, however, reports that in the Northwest, *Alohotsy* and *Alakaosy* (in the West in Figure 7) are "migrators": they are in the East from sunrise to 10h, in the North from 10 to 15h, and in the West from 15h to sunset. They are never in the South since divination is not performed at night. (In some regions it is believed that mischievous spirits may interfere with the results if divination is performed at night.) In addition, the configurations named *Alikasajy* and *Aliaza* below are called *Betsivongo* and *Adimizana* respectively in the Northwest.

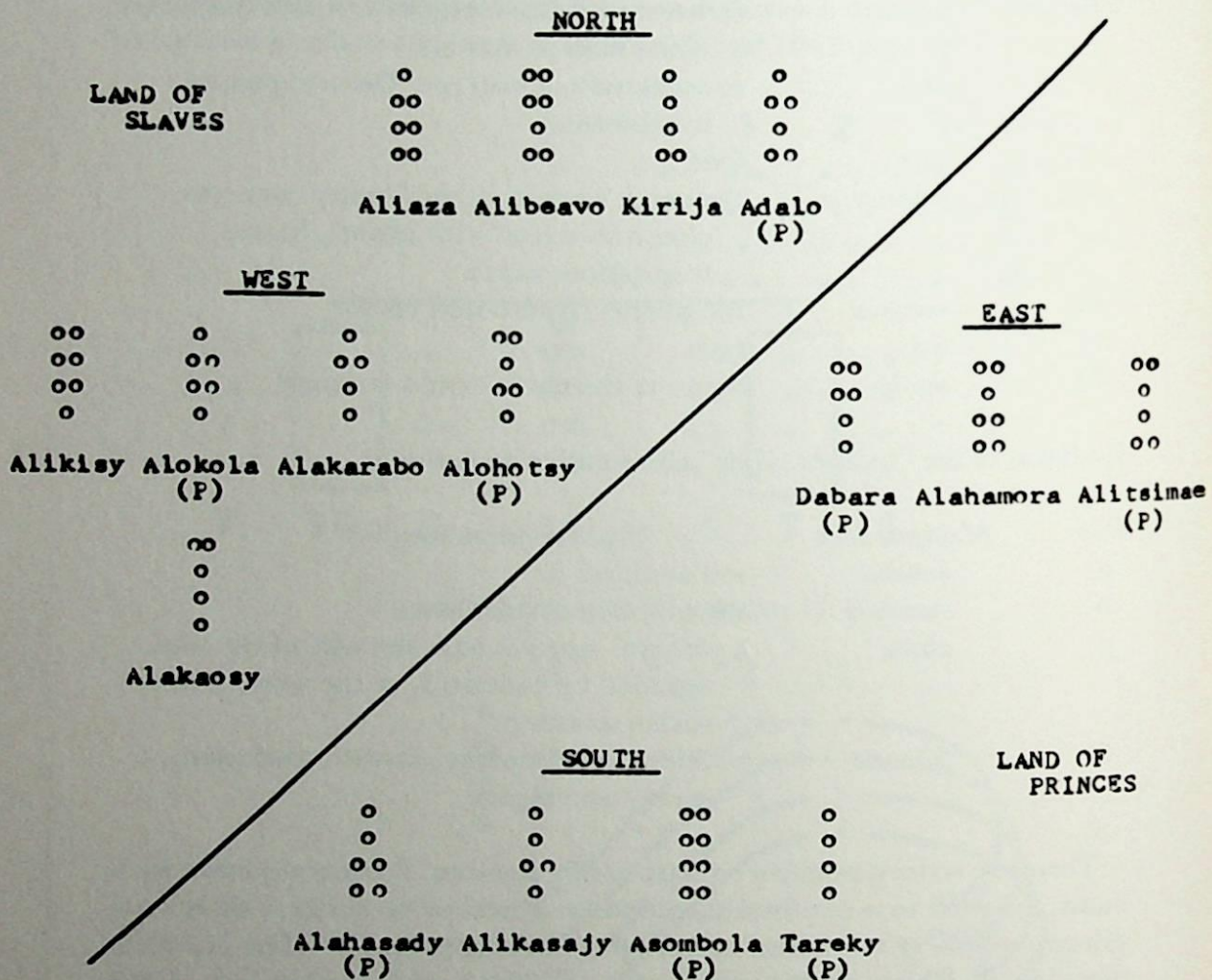


Figure 7. Names and locations of the 16 column configurations of *sikidy*.

Those configurations which are princes are designated by a 'P' in Figure 7. The South and East is referred to as the "Land of Princes" and the North and West as the "Land of Slaves." It can be seen that each configuration which holds the rank of prince consists of an even number of seeds, and it is interesting to note that the column signifying God (column 11, Fig. 6) must mathematically always contain an even number of seeds and, hence, be a prince. (Diviners usually make use of this rule to see quickly whether they have made any mathematical errors in deriving the bottom eight columns.)

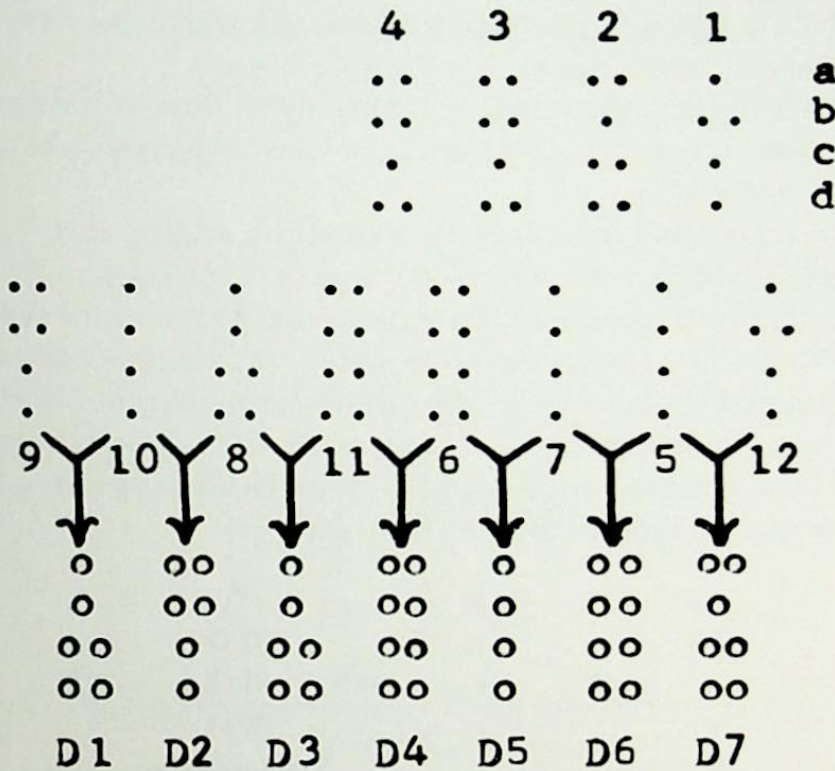


Figure 8. Formation of columns signifying days of the week.

The pattern resulting from divination is interpreted by considering the ranks of the items signified by each column and the cardinal directions in which they are found. Princes always dominate over and nullify the power of slaves. A battle between two princes is serious, if not mortal, but princes from the same territory are not detrimental to each other. In addition, a person or object from the Land of Princes is more powerful than one of the same rank from the Land of Slaves.

The particular problem of the client may require new columns, designating additional items, to be derived. For example, if one wishes to know what day one should make a journey, seven more columns, each signifying

a day of the week, are formed by adding each row of seeds in columns 9 and 10, 10 and 8, 8 and 11, 11 and 6, 6 and 7, 7 and 5, and 5 and 12 respectively (Figure 8). The first new column (D1) represents the present day, the next (D2) represents tomorrow, etc. The column of the same configuration as that of the client (column 1) is the day on which the event in question took place or should take place. If none of the seven columns is the same as column 1, the one the most similar to it (e.g., prince of the East, slave of the West) is the determined day.

There are many other reasons for deriving new columns. We shall, however, mention only a few, related to illness. The following description of divination about illness is drawn wholly from Decary.

The diviner considers three major factors about illness: 1. its gravity; 2. its cause: (a) punishment by superhuman powers or (b) poison or spells cast by men; 3. its remedy.

The illness is signified by a column formed by adding each row of the ninth column (the dead, the ancestors) and the first column (the client) (Figure 9). In Figure 9, the client is a slave of the West and the sickness is a slave of the North. They are of the same origin—the Land of Slaves—and so are not detrimental to each other. This would mean that the client will not die. If, however, the sickness were a slave of the East, the sickness and the client would be of different origins, and since the sickness would be from the Land of Princes, the client might very well die.

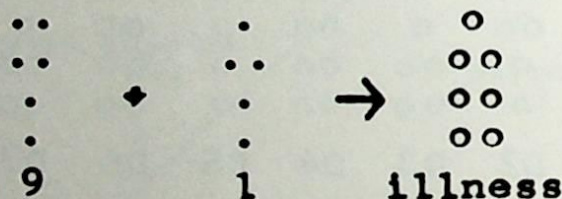
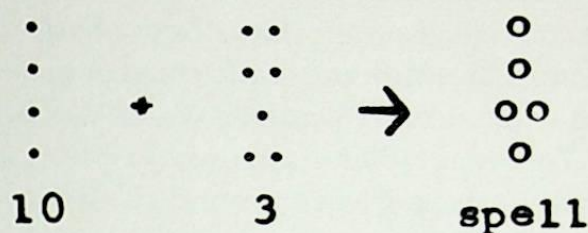


Figure 9. Formation of column signifying "illness."

The next step would be to determine whether the illness is caused by a spell or poison or whether it is caused by superhuman powers as a result of the client's breaking a promise or taboo. A spell is represented by a column formed by adding each row of column 10 (the diviner or traditional doctor) and column 3 (man, thief, caster of spell) (Figure 10). If the spell is of the same origin as the sickness or is more powerful than either the sickness or the client, the illness is caused by a spell. This is the case in Figure 10.

The eight columns in the lower portion of the *sikidy* pattern would then be divided into two groups (Figure 11). The resulting eight rows of four (rows e through l), from right to left, signify additional items (e.g., children



spell=slave of the South
 illness=slave of the North
 client=slave of the West

Figure 10. Formation of column signifying a spell.

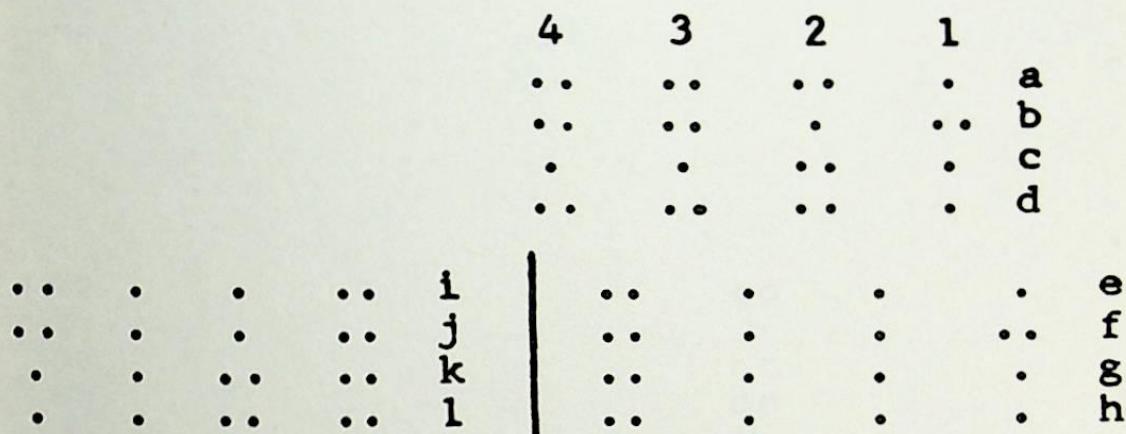


Figure 11. Eight rows signifying items involved in casting of spells or poisoning of food.

of other houses, women of other houses, field) that may have been involved in the casting of the spell or poisoning of the food.

Other columns signifying, for example, various types of foods which may have been poisoned may also be derived by combining various columns and rows. In this way, it would be possible to determine the person who poisoned the food, the food itself, the day the food was eaten, and the gravity of the illness. Similar procedures are used to obtain information about illnesses caused by superhuman powers as a result of broken promises or taboos.

OTHER USES OF SIKIDY

The *sikidy* are also used in making amulets and medicine horns. These are used for such purposes as ensuring good health and fruitful work, keeping

away spirits, and protecting against epidemics. They are not taken internally and have psychological rather than direct physical effects—much like any good luck charm. The amulets usually contain sacred sand (*fasy sikidy*) which comes from a particular location, wood shavings, metal, oil, and sometimes honey. These ingredients are usually either sewn into a piece of red, yellow, or black cloth and worn around the neck, or put into a zebu horn or other container. On some occasions the ingredients are applied to the face.

Before placing the ingredients into the container, certain *sikidy* patterns are formed and the sacred sand is placed on particular columns. For example, for an amulet to keep away spirits (an *aolilolo*) the following five *sikidy* patterns were made and sacred sand was placed on the columns represented by o's.

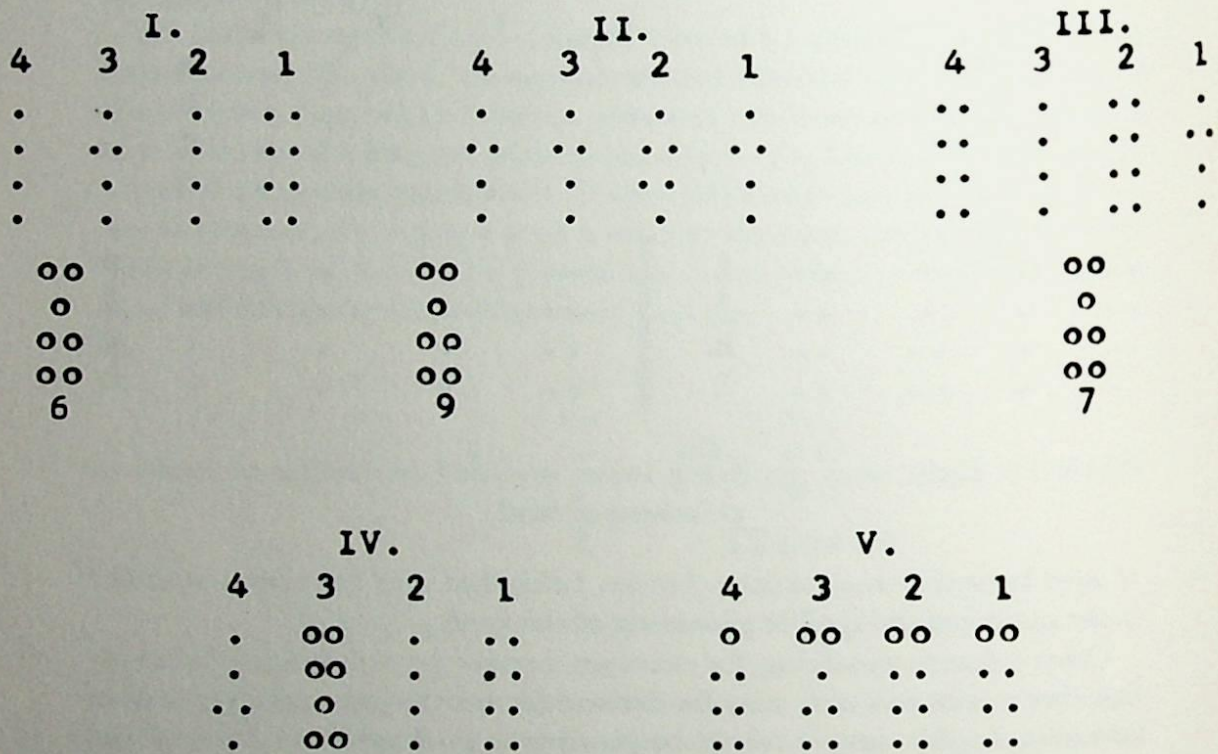


Figure 12.

It may be noted that the entire twelve columns of each pattern were not formed, but simply the first four columns and the particular columns on which sand was placed. After the *sikidy* configurations have been made and sand has been placed on the required columns, the sand is then mixed with the other ingredients and the amulet is completed. The finished amulet and

the money paid for it are held over a burning piece of *aramy* and an incantation is recited.

We were unable to discover the reasons for forming specific *sikidy* patterns in making amulets and for placing the sand on certain columns. Different patterns, however, are formed for each type of medicine and it appears that the particular patterns used vary from *ombiasa* to *ombiasa*.

DISCUSSION

Divination by *sikidy* is extremely impressive. Some factors which contribute to this are: the complexity of the procedure itself; its ancient, mysterious origins and foreign terminology; and the supernatural powers attributed to the *sikidy*. All of these seem to reinforce the confidence of both the clients and the diviners in the technique.

The great confidence that the people have in *sikidy* has been noted by several authors (DuBois;⁴ Colin;⁵ Decary.⁶) Decary cites Père Luis Mariano as one of the first Europeans to speak of this: "Les habitants de l'Ouest ne font aucun acte important sans consulter les sortilèges qui se font de plusieurs manières sur le sable, avec des noyaux de tamarin . . ." ("The inhabitants of the West undertake no important act without performing divination by lots which is done in several ways on the sand with the seeds of the tamarind . . .")

DuBois stresses that the people by no means regard the outcomes of *sikidy* as arbitrary, but rather attribute them to some mysterious power who speaks to man through the *sikidy*.

This confidence is well illustrated by two experiences which we had. As far as we know, divination was performed about a matter directly related to us on only two occasions. The first time was when we lost a cigarette lighter. The diviner performed *sikidy* and said, with certainty, that it was in the car. Although we searched the car thoroughly and did not find it, he still maintained that it was there. We decided that we must have dropped it somewhere on the road. Several weeks later, however, he found it in an almost inaccessible place in the car. His second performance of *sikidy* was to find out what day we would return to the village from a trip we had taken. He knew the week we were arriving but not the day. This was the time of year when the rice was being planted and the men spent all day in the fields. When we arrived in the village, however, the diviner was not in his field, but at home waiting for us. He said the *sikidy* had told him we would be coming back on that day.

It is important to note here that the people have confidence not only in the *sikidy*, but in the diviner as well. Each *ombiasa* has his own reputation, and some are thought to be better than others. Although the *sikidy* are invested

with power, it is ultimately the task of the diviner to interpret the results, and it is the ability of the diviner that is called upon for this task. Since the results can often be interpreted in several ways, the *ombiasa's* sensitivity to his clients' problems and social situations, his practical knowledge of their affairs, and any ESP ability he may possess or develop could be of use to him in formulating the final interpretation. All *ombiasas* are probably equally familiar with the techniques used in *sikidy* and therefore it may be that these additional personal qualities or abilities actually determine an *ombiasa's* success.

Colin believes that the diviners have undeniable powers. He was greatly impressed by two incidents involving the clairvoyance of *ombiasas** and believes that the role of clairvoyance in the work of the *ombiasa* is underestimated: "Simple jeu de hasard, pensent beaucoup d'Européens qui n'ont pas eu l'occasion de pénétrer le mentalité malgache et qui ignorent les étranges et réelles facultés de clairvoyance des 'sorciers.'" ⁷ ("A simple game of chance, think many Europeans who have not had the opportunity to penetrate the Malagasy mentality and who ignore the strange and real faculties of clairvoyance of the sorcerers.")

It does seem that *sikidy* could be a vehicle through which ESP and PK can operate. The atmosphere in which it is performed is probably conducive to the functioning of ESP and PK in that it is usually relaxed, there is most likely a minimum of anxiety on the diviner's part since the outcome is attributed to some external, supernatural power rather than to his own powers, and there is a very strong belief in the validity of the procedure. ESP, however, is unreliable in that, as far as we know, it cannot be consciously controlled and made to operate at will. The ESP ability of the diviner, therefore, is probably not the sole determinant of his success, but an important and useful complement to the other personal qualities and abilities he has developed.

REFERENCES

1. DECARY, RAYMOND, *La Divination Malgache par le Sikidy* (Paris: Imprimerie Nationale, Librairie Orientaliste Paul Geuthner, 1970), p. iii.
2. RHINE, LOUISA, E., *Hidden Channels of the Mind* (New York: William Sloane Associates, 1961), p. 215.

* In one instance, a Tanosy (a tribe in the south) *ombiasa* described Colin's appearance in detail to a friend of his before his arrival. In the other, a Mahafaly (another tribe in the south) *ombiasa* saw a photograph of Colin's mother and insisted that she was dead despite Colin's denials. Colin received a letter about two weeks later informing him that she had died suddenly a few days prior to this incident.

3. COLIN, PIERRE, *Aspects de l'Ame Malgache* (Paris: Editions de l'Orante, 1959).
4. DUBOIS, H.-M., *Monographie des Betsileo* (Madagascar) (Paris: Institut d'Ethnologie, 1938).
5. COLIN, *op. cit.*
6. DECARY, *op. cit.*, p. 2.
7. COLIN, *op. cit.*, p. 95.

DISCUSSION

BRIER: Bob, at the end of my paper I mentioned that I had an experimental design for your practice because I know you're going back, and you can do it if you're interested to see if you can get some experimental evidence as to whether or not the thing works in addition to your anecdotal material. Linda was talking about the practice where you can divine any one of seven days to tell on what day you should set out on a journey; in your case, when you returned, it was done. Why couldn't you do an experiment where you, say, set out on artificial journeys? They don't have to have a real purpose. Then you have Bernard divine what day of the week you're going to return. Then you randomly determine which day of the week you return; this can be repeated for as much time as you have and then you have a probability of 1-7 of being correct and you can see if he really can do it. Would you be interested in doing something like that?

ROBERT SUSSMAN: Linda would.

BRIER: It sounds like the kind of thing that could be tested empirically to obtain some hard data.

ROBERT SUSSMAN: Right.

SKINNER: You said that this was of Arabic origin.

LINDA SUSSMAN: Yes.

SKINNER: As I listened to you, on the role of the ancestor, the whole structure of the initial plan seemed to have a wider distribution and may in fact be related to the populations in the Moçambique area and farther westward. What do you think?

LINDA SUSSMAN: Well, I know that something similar to this is also done in East Africa and the Comores Islands.

ROBERT SUSSMAN: But many of the terms used are Arabic, and in the Comores Islands they have ancient Arabic texts about astrology and divination, and I think that both the East African and the Malagasy divination are thought to be of Arabic origin.

SKINNER: You get something similar in West Africa related southward to the whole cult of Ifa, so you might have an earlier horizon here of some kind of syncretism at work.

ROBERT AND LINDA SUSSMAN: It could be.

BOSHIER: I haven't come across this with the Bantu-speaking people, but the bushmen in the Kalihari have seeds a bit larger than these which they use together with small wooden disks. But up as far as I've gone in Mozambique and East Africa, there is no indication anywhere that this is possibly mixed up with astrology as Linda and Bob have suggested.

VAN DE CASTLE: Yes, Dr. Bharati.

BHARATI: Aren't you using the term astrology rather loosely? Because when you talk about any of the traditions like the Hindu tradition, there's also reference to constellations and to astrology.

ROBERT SUSSMAN: They have a complete system of astrology and all of these terms are related to the days of the week and the months of the year.

LINDA SUSSMAN: The main connection is through the names of the configurations of the seeds, such as Alohotsy and Asombola, which in the Comores Islands are identical to the names of the astrological signs. In Madagascar, some of the names have changed, and so the correspondence is less exact than in the Comores Islands.

BHARATI: Are these people official nominal Moslems?

ROBERT SUSSMAN: In the Comores Islands, they are, but not at all in Madagascar, although the divination system is very similar in the two places. It seems like much of the history of this practice has been lost in Madagascar, whereas it is still preserved in the Comores Islands.

DEVEREUX: Do you happen to know that Professor Linton also practiced this kind of divination and more or less believed in it? Do you have any access to unpublished data of his?

ROBERT SUSSMAN: No, unfortunately not.

DEVEREUX: Is there any possibility of interviewing Mrs. Linton?

ROBERT SUSSMAN: Yes, there might be a possibility and there might be a possibility of getting unpublished notes. That would be a very interesting idea I hadn't thought of. Thank you.

DEVEREUX: Secondly, I was very much struck by the "wake-up" exclamation. In the cult of Dionysos at Delphi, once a year the women assem-

bled to "wake up" Dionysos, represented by a phallus in a winnowing basket: in other words, covered with seeds. It's mentioned in Plutarchos' essay: *On Isis and Osiris*.

WALTER: I just wanted to express a hope that Linda and Bob could do a run here.

ROBERT SUSSMAN: Well, we could do that, but it would essentially be a repeat of what we did there.

BHARATI: You don't believe you could do it without the special training the diviner has?

ROBERT SUSSMAN: That's true, except we were given some medicines to give us certain powers. This, for example, is one of these medicines.

BHARATI: Then the power rests in that object, not in you.

ROBERT SUSSMAN: The power is transferred through the object to me.

SKINNER: In terms of your own experience with the diviner, and in terms for a request for experimentation, it seems to me that experimentation of cross-cultural universes pose many problems—not only the question of skills, the question of belief, but the question of perception. In terms of the attempt of Weiner and others to look at parapsychological phenomena cross-culturally, I wonder about this. You talked about linguistic problems this morning, interpretation, and I wonder how valid it would be from the perspective of Westerners to conduct experimentation. I can assure you that within the cultural universe of many of these African groups, there's always some contingency factor which precludes it. I gave up finally trying to pin it down; and the final attitude was, "Well, you've lived too long in the West. Your ancestors forgot, therefore you will have to come back and your children's children's children will then re-acquire the capacity to understand and to manipulate the supernatural." I'm talking about this whole cultural universe in which many of these things are built in structurally in terms of princes, slaves, East/West; I wonder about the attempts at cross-cultural comparison and how far we can get and whether or not at some point in time we can understand the South Africans and their congresses of witch doctors, for their own reasons. I wonder at what point in time we can lean over their shoulders and really try to find out what's going on among them.

SMITH: I think in connection with how far one can go to bridge one culture to another and how far one can't, this should be an empirical matter, not arbitrarily decided for or against in any way. I recall a book that impressed me very much, *Black Hamlet*, years ago, in which a psychia-

trist set out to study an African witch doctor. He set out very knowingly, but very quickly, within a week or two, they were brothers—not a psychiatrist examining a superstitious witch doctor. That to my mind was a very telling example of how cultures can be bridged. So I say why not bridge them as much as we can. I think that if the anthropologist is concerned with man and not simply examining isolated cultures, then he must not stop short of the very difficult but very important attempt to bridge cultures.

VAN DE CASTLE: I'd like to make a comment on how that might possibly be done. Last year when I made the trip down to the San Blas Islands, I took along with me a young sensitive from London, Malcolm Bessent, who knew nothing about the culture or language. He was able to do some rather remarkable things there because he would come up to the natives, look at them for a moment and list a very detailed description of their family: "There are five people in your family. You have a younger sister who is about sixteen that you're very much worried about. You lost your father last year and you'd always been very close to your father 'cause you'd go fishing with your father." Then he'd do very detailed physical diagnoses: "You've had trouble with your left knee for the past three months. You have trouble with your right shoulder blade and that's been going on for about a month and you have a lot of trouble sleeping with it." Of course, these varied in terms of specificity. At least if one were to judge what the Cunas were replying, I would have to give him an accuracy figure of somewhere in the neighborhood of 85 percent, which impressed them a great deal. Then he would go on to some psychic healing and his own claim was that when his hands were warm and they felt tingly, he could then heal. If someone were having problems in their knees, Malcolm would hold his hand over their knees for awhile and then rub them. Probably the most dramatic case was an older man whose hand was very much crippled from arthritis. He had not been able to hold a machete for about six months, which troubled him a great deal because the work ethic of the Cuna stresses that you should be busy from dawn to dusk and even a little later. Malcolm placed his hand over the native's hand for just a few minutes. When we went back the next night to check, the man was just as pleased as he could be. He had been able to hold his machete. He had chopped sugar cane all that day, and was just absolutely delighted. When I would take Malcolm to interview some of the Neles or local shamans, he was able to exchange viewpoints with them. "This is how I do it. How do you do it?" "I'll give you a demonstration of what I do. Will you give me a demonstration of what you do?" Unfortunately, it got to be a little bit too one-sided. Malcolm was willing to demonstrate much more than they were. I think that as an approach it might work where we have a sensitive from this culture

going down to talk to a sensitive to that culture, and by operating, in a sense, as colleagues—not in any attempt to show him how superior we are, but, rather, “We’re in this together; we both have had similar experiences; would you be willing to exchange some information?” With that setup, it might be possible to get a chance to observe and possibly validate or document some of these phenomena.

BRIER: I understand why you’re raising the question, because past cross-cultural experiments have not been successful and there’s no great background of literature showing wonderful results. But I think in a case like this where, say, Bob and Linda are friends of someone who practices it, perhaps they can work from within the framework that the man uses. I mean, it’s certainly pointless to go there and give the man ESP tests with cards. This has been done and it hasn’t worked, which is not surprising.

VAN DE CASTLE: With one exception.

BRIER: With one exception, of course, Bob’s work. But I think what might be possible is to work within the framework and then just tack on our Western scientific analysis afterwards. That is, let the man “do his thing,” and if it’s amenable to our kind of analysis, once you’re out of there with the data, then do it. That might work.

BOSHIER: I think this might be the time to tell what happened to me a couple of months ago in South Africa when I was personally going through an initiation with the Zulus, and I asked the presiding witch doctor, a priestess, if it didn’t trouble her that not only was I European, but I had come from England and as far as I knew, my ancestors came from England. Now here was someone who practiced ancestor worship, and she appeared somewhat shocked. I must stress that this was a person with a purely tribal background. She spoke no English whatsoever. She had visited Johannesburg once but the rest of the time she had lived in the heart of the Drakensberg mountains in Zululand, and she said with great surprise, “Heavens, it makes no difference. My ancestors and your ancestors are in communion and we get onto this level and there’s no difference whatsoever. You and I today are different. I accept it. You must accept it, but we came from a common source.” I stress, this is a tribal woman. And she said, “When we go back into the next world, we will be together again. On this level when we are dealing with the spirits, there is no difference whatsoever, and any witch doctor can be black or can be white and it makes no difference, and I can accept you only because my ancestors do.”

HAYNES: This isn’t a controversial statement. But I think an example of trans-cultural healing is already being provided by Dr. Lambo, who is a

Nigerian. He is at present running a psychiatry unit in Nigeria with some Western psychiatrists, cooperating all the time with African witch doctors or, rather, healers.

VAN DE CASTLE: I didn't mean to imply by my statements about Bessent that this was necessarily on a paranormal basis. A parapsychologist isn't going to immediately jump in and look for psi as the primary or exclusive explanation. He would certainly be willing to consider any other parsimonious interpretations until the point is reached that they seem to be inadequate. In this case I would certainly acknowledge the possible role of suggestion in the remission of the rheumatoid arthritis.

DEVEREUX: I'm sorry to have to criticize again an "elder." But I have serious reservations concerning the value of a certain colleague's work. I regret to say that I have been told by somebody reliable, whose name I cannot reveal, that in one of that colleague's papers it is stated that all the patients he discussed had had EEGs. My informant told me that there was only one EEG in that colleague's country and that one had been struck by lightning a year and a half earlier.

HALIFAX-GROF: The example that Mrs. Haynes cited is certainly not the only one. I can cite my own work as an example. In the University of Miami School of Medicine, I was essentially in the role of "cultural broker." That is to say I was a bridge between various groups or co-cultures in the community and the hospital system. In that role one can function as a means wherein indigenous healers can move into the hospital system and do what they will with dignity, and patients within the system can be referred out of the hospital system to appropriate healers.

BOSHIER: I am pleased to hear that it's being done in Miami. It's also being done in Johannesburg where patients are referred by both African and European medical doctors to witch doctors, whether you like the term or not. It doesn't mean what I think you think it means. Healers, priests, diviners, psychiatrists—whatever you want to call them—patients are being referred to them. And what is more, the witch doctor, priest, diviner, or whatever you want to call him, is referring some of his patients to those same European clinics.

HALIFAX-GROF: That is also the case in Miami.

BOSHIER: It's running very well and has been for some years.

THE ONTOLOGICAL STATUS OF PSYCHIC
PHENOMENA
IN HINDUISM AND BUDDHISM

AGEHANANDA BHARATI

Let me first define my use of "psychic phenomena" in this contribution. I cannot use the term in the more narrowly technical sense in the manner that specialists on ESP and the entire range of psychic research would, for my theme urges a rather wider use than would be warranted were I to present this paper as a psychic researcher rather than as a cultural anthropologist specializing in South Asian ritual and belief systems. I would like to submit that the realm of psychic phenomena as part of the South Asian religious systems could be extended to include a much larger variety of paradigms than I will adduce. Depending on the proclivities of any particular researcher, certain themes in Hindu and Buddhist doctrine and practice could be widened so as to include the psychic; on the other hand, a complete statement on the Hindu and Buddhist belief system could be made which does not contain any reference to the psychic. Let me exemplify these two extremes by a putative account. A scholarly Hindu pandit may say something like this: "Ghosts, *pretas* (disembodied spirits) are figments of the imagination; they have no separate existence. Only fools believe in their power." On the other end of the scale, an equally learned Tibetan Buddhist monk may say, "Together with a large number of other supernatural beings, spirits of the departed, minor deities such as *yakṣas* (forest dwelling spirits), and *rākṣasas* (demons) hover around us at all times. One must take care not to offend them." Both these extreme putative cases at opposite ends of the unbelief-to-total-acceptance continuum will, however, admit, as part of their central doctrines, that souls or other transmigrating existents that would translate a large number of Indian and Tibetan terms, are indeed present in the interstices between their bodies' demise and their next incarnations; and whatever contact there can be between the living and them, must logically (and is doctrinally) be in contact with those interstitial beings, because there are no others in the Hindu-Buddhist pantheon;¹ even though a large number of divinities are conceived euphe-

mistically, the fact that they are believed to exist as beings within the theological-mythological framework of indigenous South Asian belief systems, precludes them from being thought of, and hence approached as, interstitial. It follows from this that the numerous, complex, and fairly well-studied and reported patterns of approach to these beings, through trance, possession, drug use, meditation, etc., do *not* fall within the purview of this paper. These have to be dealt with under the rubric of religious specialists, shamanism, priesthood, etc., and these, of course, are entirely different topics in the anthropological taxonomy. If, for example, we were to equate or assimilate the frequent phenomenon of possession by some village god, to an occidental seance, we would blur our investigation, and the eclectic results of such enthusiastic comparisons would be deleterious to any genuine research effort. In order to impress this methodological caveat on my fellow symposiasts here, I must adumbrate that what we call the "new ethnography" (now about a dozen years old and, in other contexts than ours, already slightly obsolete) demands that the researcher distinguish rigorously between what people within a culture, subculture, or within any identifiable segment of a society say about themselves and their beliefs, when they talk with one another, in a manner that makes sense to *them*, and what outside researchers (or researchers who happen to belong to their society, as the case may be, for instance, when a Zulu becomes an anthropologist studying Zulus) infer, and report about the deeds and ideas of that society, making sense to *other* researchers in the field, but not necessarily (and indeed, very rarely) to the agents of that culture. A simple example: Americans (males) hand cigars to friends when their wife has given birth to a child. Now when you ask a cigar giver *why* he does that, he will probably say, "It is the custom," or "I like my friends to know I have a son," or some such thing. Or, if unasked, he will simply keep giving cigars to some people whenever there is a new child at home. But to the psychologist of Freudian provenance, the man gives a cigar because he is unconsciously afraid of the envy or jealousy of other people—he cannot let them share the sexual favors of his wife that resulted in the offspring, so he substitutes a cigar for his penis, sharing these favors vicariously, symbolically. Now if the psychologist tells this to the average American farmer, the latter will either laugh it off, get upset, or hit the psychologist over the head; or, in a few rare instances, he may agree. But what is important is the distinction, the keeping apart of these two types of reporting. The term for the participant in a culture communicating his cultural experience to fellow participants, is *emic*; the term for the social analyst's analyzing that social behavior in a manner that makes sense to other scientists, is *etic*. *Etic* and *emic* strategies

must be used side by side for the analysis of any social situation, but they must be strictly kept apart.

Now when we study parapsychology as anthropologists, we cannot do what the parapsychologist does. Our job is to see what parapsychology does, and also to analyze the parapsychologist's findings, in a manner that makes sense to the social scientist. I think the best parallel is the case of psychiatry: psychiatric jargon makes sense, hopefully, to psychiatrists; yet terms like "paranoid schizophrenic" do not necessarily describe anything in the patient. Rather, such terms describe the psychiatric league's view about social norms, and conformity to these norms. Inter-psychiatric talk about patients is *emic* talk; but talk about psychiatrists, their "patients," and their society is *etic* talk, as when anthropologists today analyze the psychiatric situation.

With this apparatus in mind, we can return to our special theme: psychic phenomena in Hinduism and Buddhism. In an *emic* strategy, we shall try to state what Hindus and Buddhists think about phenomena which you might call "psychic." Thereafter, we shall try to analyze these notions *etically*. In both these subsequent strategies, of course, we have to select our audience and our topic. The Hindus and Buddhists I shall choose for the *emic* part of this analysis are Hindu villagers in South India and Buddhist villagers in the ethnically Tibetan parts of eastern and northern Nepal, both groups with which I have had intensive contacts. As I said at the outset, Hindu and Buddhist religious specialists have a wide range of assumptions with regard to these phenomena, while the illiterate, or semi-literate villagers' attitudes are modal, and can be predicted pretty accurately. There is one very important difference between the analysis of South Asian modal ideas with regard to the extranatural, and modal ideas of other cultures: in South Asia and Tibet, the "great tradition" of the cities, the shrines, and of the centers of religious learning constantly invades the "little" local, parochial traditions of the village. This pattern is powerfully pervasive on the subcontinent: the village god X, worshipped and manipulated by the villagers or their ritual specialists, is identified with some Vedic all-Indian deity whenever X is represented to the outside world. In the light of this diffuse fact, we find that locally known and regionally handled phenomena which most of you here would call "psychic" are always assimilated with phenomena thought to be *universal* by the villager, i.e., phenomena reported about other regions within this culture, either through folklore, wandering *sadhus*,² or through inter-village gossip lines; and there are indeed some well-delineated parapsychological themes in the all-Indian "great tradition" lore, all of which I am going to mention

presently. Still, it must be kept in mind that emic reports from rural South Asia are vastly more numerous than the tentatively parapsychological material in the great "tradition," i.e., in official Hinduism and Buddhism.

Let me present a few typical village-originated situations. At first, the emic statements: disease and other bad luck is due to the evil eye, and to transgressions in previous incarnations. Good luck is due to merit accumulated in previous existences, or to the blessings of a holy man, or to the benevolence of some deity properly propitiated. Almost all diseases are due to witchcraft.

Now the etic analysis of these modal statements is, of course, much more complex, and much longer. In the first place, we shall have to understand what sorts of beings of the extrahuman and human realm are referred to by various village Indian terms; next, we shall have to single out and separate "great tradition" conceptions about rebirth and the interstitial status of souls or other beings between their incarnations; and thirdly, we shall have to explain how the villager manipulates these agencies, how he assuages them, cajoles them, threatens them, or otherwise defends himself against them. The final section of this paper will of necessity adumbrate the normative, "great tradition" view of parapsychological and cognate phenomena; that, however, will be a very short section, since the anthropologist is really more interested in actual occurrences than in projections and possibilities, which he prefers to leave to the philosopher or, in this case, to the philologically oriented Indologist.

At a seance in Boston, the entities contacted are departed spirits, interstitial entities perhaps, but I don't think that the official saints or divinities of the Judaeo-Christian pantheon have a place there. ESP, too, seems to come to a halt at the point where religious or mystical perception in the sense understood by mystics and their votaries begin.

Now this exclusion is, to my understanding, simply a part of the theological-secular dichotomy in the research strategies of the West. It seems to me that the exclusion of the Christian pantheon from parapsychological research is due to certain unspoken canons of mutual nonencroachment rather than to any thematic nonconnectedness. In the Indian situation, there is no such delimitation at all: local spirits, the interstitial souls of the deceased, as well as the Hindu high gods share the human-extrahuman interface in South and Central Asia. A man or a woman may be possessed, and hence act on the behest of some local demon, saint, spirit, or on that of Hanuman or the Mother Goddess, both high up in the official Hindu or Buddhist theological hierarchy. The Buddha, of course, cannot and does not appear in these situations, since he is the only being that does *not* exist, having reached extinction (*nirvāṇa*). The Hindu gods, thoroughly absorbed

into the Buddhist pantheon—the Buddha himself never denied their existence, though he challenged their importance—do participate in the inter-human–extrahuman transaction on the subcontinent. If the Buddha does appear in a monk's or a lay person's dream, then the latter's rationale for it is of a mnemonic type; the Buddha has no ontological existence to the Buddhist, but he most certainly has an affective existence to the Nepalese, Ceylonese, and Tibetan villager.³

During my two last field researches among Indians in East Africa⁴ and monks in Śrilanka,⁵ I encountered an approximately even distribution of high-god and “little-tradition” local extrahuman ingression. Among Hindus in East Africa, the term used for any possession is *mātā lag gayī*, literally “the Mother has affixed herself” (i.e., to the person in question). By whatever mechanisms such possession has been called forth, the person then speaks as the Divine Mother, and whether his counsel is sought as an oracle or for healing purposes, it is divinity that does the healing; the address by the audience to the curer or shaman, or to the layman occasionally possessed, is an address to the Deity, not to the person. Probably due to the East African Hindus' remoteness from India—we have here third generation expatriates—it is only members of the “great tradition” high pantheon that possess and direct people, so that the generic phrase *mātā lag gayī* may refer to the possession by some other Hindu high god, but not by some local spirit, since local spirits were obviously not shipped along from India with the ancestors who came to East Africa. In villages in India and Nepal, however, I witnessed possession by Hindu or Buddhist deities as well as by local spirits; and this, as I mentioned earlier, in about even distribution.

The ontological status of local spirits and of the high gods seems to be identical in the Hindu and Buddhist villagers' conception: In other words, villagers think that these beings really exist, quite outside from and apart from the actual or alleged perceivers, i.e., the sadhus, the shamans, the curers, and the occasionally possessed. In other words, the frequent Western, Judaeo-Christian argument heard on all levels of sophistication, that these phenomena “exist in the minds of people only,” or expressions to that effect, is rare in South Asia; when it does occur, as in urban settings, it is due more often than not to some degree of exposure to Western ideas, through formal education in the official school systems which follow a Western model, or through indirect modernistic gossip lines.

Now this does not conflict with the refined theological notions of several Hindu schools of thought, and of all Buddhist schools, i.e., that no divinity and, for that matter, no other living entity has ontological status. Patāñjali, the founder of systematized *yoga* (roughly second century B.C.), made it quite clear in his *yoga* aphorismus that “*īśvara* (i.e., the personal *theos*) is a

crutch to meditation"; and the commentators agreed that the implication was the irrelevance of the ontological status of *īśvara*. Some comparative philosophers of this century, both Indian and occidental, have seen this as a parallel to the Kantian idea of the thing-in-itself (*Ding an sich*), whose ontological reality cannot be proved or disproved, but which can be postulated by practical, i.e. moral reason. I do not think this is a felicitous analogy. In the literary religious traditions of India, the ontological status of divinity has been rather precarious, and it was really only very recent schools of devotion, from the eleventh century A.D. onward, that emphasized the ontological reality of a supreme divinity. But as Professor Smart here in London has shown quite cogently,⁶ insistence or emphasis on the ontological existence of a personal god always weakened the philosophical thrust of Indian religious argument, inside the doctrinal systems in which they arose. For this reason, the Mahāyāna Buddhist doctrine as taught by the second century B.C. Buddhist teacher Nāgārjuna is, often somewhat grudgingly, acknowledged as the most sophisticated by the religious doctors of ancient and modern India.⁷ Nāgārjuna taught that the only commitment of the religious thinker is the destruction of any dogma, without replacing it by his own. To him, the question of ontological reality or non-reality of any being, including divine beings, is childish prattle. But, so he taught, the power accruing from the proper manipulation of forces which are talked about as though they had ontological reality, is real so far as it goes: the person who knows that the void (*śūnya*) can generate phantom entities just like the magician conjures animals and other visible things out of nothing, is indeed powerful when he learns to harness his mind to the techniques of control which enable him to recreate this magical spectacle.

Now, although none but the learned monks and lamas in Tibet and the ethnically Tibetan parts of Nepal know Nāgārjuna's teachings, the "little traditions" in the villages and the nomadic camps echo the cognitive base of his teachings. Miraculous powers are ascribed to the priest who *knows* what the layman does not know: the lama or the powerful shaman can control and conjure forces which actively pervade the universe of people. More importantly, or more immediately important to the village scene, the mendicant or the yogi can counter the evil powers of witches, evil spirits, enemies of the *dharma*, etc., by virtue of his knowledge and of the *sādhana* (psychoexperimental practice) which he has done, and which, in theory at least, could be emulated by anybody who wants to and who seeks the proper guidance. This means that the popular occidental notion of a person's "being psychic" is not shared by the village Indian or Tibetan: it is not merely that some persons happen to have these powers; but rather, these powers must be acquired. And if a person displays such skills without

having undergone the proper training, then the inference is that he did learn them in some previous existence, which bears fruition at this time only. The Indian tradition rejects the possibility of "talent," or *tabula rasa* skills. Everything that is worthwhile has to be learned from a qualified teacher, and that includes all the skills popular Western terminology would refer to as "psychic."

At this point, we must go back to the Indian (and Tibetan) villagers' modal explanation of ill luck including disease, death, poverty, etc. Some agents of mischief are recognized as more dangerous than others, and the local taxonomies vary in these ascriptions: a woman who has died in childbirth, so the villagers in South India hold, cannot readily find the proper womb for her own next birth, and her spirit visits and harms the survivors, especially, or perhaps exclusively, in her in-laws' house: she can and does cause further stillbirths, and a large number of other afflictions identified by the local curers. Etically, of course, this has to do with the enormous tension systematically present in the Indian family system, where the wife is felt to be a lifelong intruder in her in-laws' house, in spite of the fact of course that she didn't go there of her own choice, since all marriages are arranged. Female suicides are very largely due to these specific affinal tensions, and the spirits of women who have committed suicide are particularly ferocious and hard to assuage or exorcise: they tend to cause, in their affinal kinswomen, the same troubles and mental afflictions from which they themselves suffered when they were alive.

I have counted some half-dozen varieties of such unpleasant ghosts; their functions overlap at times, but are usually quite well defined. In Northern India, the terms *bhūta* and *preta*, usually translated by "ghost" in older non-sophisticated dictionaries, both mean "departed spirit," which is only part of the English sememe, since to my scant knowledge of occidental lore, there are ghosts who are not departed spirits but are some heathen left-overs. The *bhūt* and *pret* in Northern Indian appear in various forms, but some kind of shape, albeit somewhat transparent, is assigned to them: there are some with enormous abdomens and long thin necks, which appear on roadsides in the hours of dusk and dawn—these are spirits of people who suffered a violent death. The *cūṛeil* is a female witch, not an actual person who practices witchcraft (for such a person there are other terms), but some malevolent departed spirit whose original cause for anger has long been forgotten, and who has not found a new body (once a soul has found a body, of course, it cannot appear to anyone, nor be a *bhūt*, *pret*, *cūṛeil*, etc.). The *cūṛeil* often appears as a beautiful woman, who seduces men crossing her path and kills them by emptying the victim of blood and semen during copulation—a sort of vaginal vampire, if you permit the facetious

alliteration. Now though the number of local spirit types is legion, one might easily establish some sort of a typology for them (which I am not going to attempt here). The defense against, and the previous diagnosis of the presence and the effects of spirit interference is part of the training and the function of several categories of curers, shamans, diviners, etc., and it is to these that I now briefly turn.

Again, following the rules of ethnoscience, we find the native terms and see what kinds of persons fit into these terms. The *kapurāla* in Śrilanka is partly an officiant of some deity, and partly a curer who uses the power conferred by that deity upon him, either by training or by some sort of contract. The *baṛwā* in Northern Central India is a village practitioner; he deflects spirits possessing people and causing various disorders in them, from those victims, absorbing them into his system, and “dancing them dead”—as one of the many forms of exorcism practices on the subcontinent. Let me add that the recent cross-cultural literature on modes of spirit divination and exorcism is vast; I have made a critical survey of it in the *Biennial Review of Anthropology*, 1971.⁸ As a young monk, I walked through India, visiting some 250 villages;⁹ virtually without exception, villagers told me, unsolicitedly, about the harm caused to them by evil spirits, witches, and discontented local divinities. Hardly anyone ever spoke about the effects of bad *karma*, except as an afterthought in more highly structured religious conversations. Parapsychologists would have a field day in village India; the only trouble is that as of now and for many years to come, they won't be likely to obtain visas, since the Indian government looks with suspicion and disdain upon anything that seems to underline local ways which conflict with industrialization. The modern, English-speaking Hindu, and all Indian government officers, will simply deny that these things happen or exist in India. Some of them are city boys, some are ignorant and may really not know about the spirit lore permeating India at all times; but for the most part, they simply deny knowledge due to political exigency.

* * *

In the official “great tradition,” both Hindu and Buddhist, there is consensus about the possibility of acquiring supernatural powers, powers of control over spiritual forces seen as within or outside the agent, depending on the theological base of the teachers and the chain of disciples. The texts single out seven “great occult powers” (*saptamahāsiddhih*), and although there is some variation in the enumeration, the most commonly quoted are “the power to be as heavy as the earth” (*garimā*), “to be as light as a fly” (*laghimā*), “the power of having all one's wishes fulfilled instantaneously”

(*kāmatvam*), “the power of having sexual relations with anyone one chooses” (*vasīkaraṇa*), “the power to appear simultaneously at several places anywhere in the same or different bodies” (*karmalokaśārīratvam*), and finally the two most gruesome ones, “the blowing up of a dwelling” (*uccāṭana*) and killing (*māraṇa*). The difference between the knowledge about these powers, as between the villagers and the “great tradition” pandits, is simply that the latter know the Sanskrit technical terms, and most of them can enumerate these. The villager knows about these occult powers in the sense that he has heard about each of them, but he does not usually know all the seven, nor of course does he know the technical terms for them. But other than that, belief in the possibility of acquiring these powers seems to be quite universal in South Asia. Were a scholarly Hindu or Buddhist asked, for example, how a witch works when he or she kills a person by witchcraft, he would ascribe this to the seventh power, *māraṇa*. Were a simple villager told about the power of *laghimā* by some itinerant monk, the former might remember that he heard of a person who could levitate.

You will notice that none of these classical powers stipulates any intermediate agency between the practitioner and his object. There is, however, on the village level, a wide range of beliefs in phenomena where a practitioner does use some sort of spirit to effect his works. The general North Indian term for this is *jādu* (a word that has no lexical equivalent in any Western language). The term means *both* a practitioner as well as the spirit he or she uses toward effecting some supernatural feat. In Hindi and Urdu, a *jādu* may be a person who does witchcraft, or it may be the spirit agent of a witch; hence the phrases “he (i.e., the practitioner in question) has a *jādu*” or “he is a *jādu*.”

I recall an incident in 1955, when I stayed at the Birla Temple right in midtown New Delhi. A somewhat forbidding-looking man, who was my neighbor, called me over into his cell; he took a hair from his substantial whiskers, and moved it along the stone wall—there was a formidably loud sound as though someone was starting a scooter right in the cell. There could have been no apparatus to aid in this performance; the man told me that he owned a “noise-making *jādu*” whom he summoned by using a hair of his whisker plus some secret incantation. In the Indian National Army in which I served in 1943, there was a Marathi sergeant who could blunt a knife or a sword, or any sharp edge including that of a switchblade, by moving it through his spread-apart legs, and by muttering some *mantra* (magical formula). By reversing the sequence in the opposite direction and by reciting the *mantra* backward, he would restore the edge to its original sharpness. The soldiers referred to this man as “a *jādu*.” It is important to

know that there is no canonical mention of these highly diffuse, typically "little tradition" phenomena in the Hindu and Buddhist scriptures, though casual mention in some very old texts suggests that their existence was taken for granted even during the time of the Buddha (fifth century B.C.).

How are people believed to come by these powers? Here, in simple and in complex formulations as the case may be, there is consensus all over South Asia and in Tibet, that *sādhana* alone does it: intensive, guided contemplation of highly specific kinds, usually involving the repetition of one or more mantras, accompanied by special types of psychophysical asceticism and other (dietary, sexual) austerities. Lexically, *sādhana* means "practice, exercise" in general, and the term is used for music, the fine arts, sports, etc. In our context, however, all people in South Asia understand the term to mean the process of training whereby a person acquires *siddhis* (occult powers).

There is, however, a snag to all this. Unlike in the West (or maybe a bit like in the early and medieval Christian West up until Salem, Mass., where the quest for occult powers tended to be persecuted as witchcraft), the Hindu and Buddhist theologian declare these powers, lock, stock and barrel, as *undesirable*, as obstacles in the path of religious realization and consummatory spiritual fulfillment. All agree that the practice of yoga, the quest for *nirvāṇa* (Buddhist) or for *mukti* (the Hindu and Jaina term for redemption from rebirth, for acquiring the supreme intuitive knowledge that liberates the individual from bondage once and for all), generates *siddhis* as inevitable epiphenomena, as it were. But a person who uses these *siddhis* instead of renouncing them and utilizing their force toward accelerating his path to liberation, falls from that noble path and is bound to fall lower than the ordinary human being who has not attempted any yoga at all. The technical term for a person who has failed to resist the temptation of using his *siddhis* is *yogabhraṣṭa*: "one fallen from (the path) of yoga." It is important to know that *any* use of *siddhis* is malfunctional in this sense, regardless of whether it is "good" or "bad" use—the facile Christian distinction between black and white magic would be regarded as somewhat irritating and fatuous by the Hindu and Buddhist yogic practitioner. There is a somewhat depressing tendency among Western admirers of the occult, to *like* the occult and its practice, whereas actual practicians reject the basis of occult power as dysfunctional; this is in line with Western admirers of the mysterious East enthusiastically endorsing rebirth, as though rebirth were something desirable and wonderful, when in theological and experiential reality it is entirely painful and miserable. A lunatic fringe in the West talks about previous lives, with lamas, Cleopatra and priests of Osiris heavily

spoken for by those who claim such memory. All these people fail to see that the genuine proponents of the doctrine of rebirth in the South Asian indigenous religions regard *any* birth as painful, including that of an Osiris priest and of Cleopatra. Some more crucial caveats about rebirth will be brought out in the final section of this paper.

Now at last the question about the ontological status of the media used by *siddhas* (i.e., by persons who have developed *siddhis*) can be asked: "What are the *jādus* 'owned' or manipulated by the 'little tradition' practitioner, and what are the spirits or spirit forces mentioned in the Sanskritic 'great tradition' of the 'seven great *siddhis*'?" A general answer is not very hard to formulate, and specific answers cannot be given covering the total context. The general answer about the ontological status of these agents or agencies is that *their ontological* status is thought to be similar to that of the practitioners themselves, "as real as the yogi himself." This sounds hopeful, offhand, but for the enthusiast there is little comfort and little reason to rejoice: in virtually all Indian systems of thought, the ontological status of man in general is very weak indeed. Since the lack of agreement about man's status anywhere along a continuum from illusory, dreamlike existence as in the monistic schools of Hinduism and in some of the northern Buddhist schools, and a naive realistic position of straight ontological existence comparable to the Judaeo-Christian-Islamic ontologies, as in the medieval Vaiṣṇava schools,¹⁰ it could of course not be expected that extra- or infra-human agencies could have a more highly defined ontological status; and comparative theological study shows that liminal beings of any kind (i.e., the whole array of spirits, ghosts, departed souls, etc., culturally postulated in any society) are never assigned ontological status *stronger* than that of human beings. To put this more simply ghosts, spirits, and other supernaturals believed in by any society are never thought to be more real than the human beings themselves, although they may be more powerful, sometimes wiser, etc. In systems where human beings themselves are illusory, as in the monistic Vedānta, these beings are illusory, too, and the question whether they are more or less illusory than man himself is left entirely to the individual interpreter; though it is sure that none belonging to that school ever seemed to have gotten any results from contemplating degrees of illusoriness between spirits and men. As the most general possible statement, it might be said that "great tradition" Hindus and Buddhists have a built-in systematic shrug, as it were, with regard to the realm of the extrasensory, and to extrahuman beings other than the theologically postulated absolute (the *brahman* in the Vedānta tradition): Since the kinds of knowledge of any one being (human, spirit, ghost, god, demon, etc.) can never be *decisively* superior to that of the wiser

men, since true wisdom has been found only by those who no longer exist in *any* form, because release from bondage and ignorance means release from rebirth in any form.

* * *

With some trepidation, and as an appendix rather than as part of the main text of this paper, I will now conclude with a note on the indigenous Indian notion of rebirth or reincarnation. I am afraid that some of you, on reading the title of this paper, might have thought that this was going to be the nucleus of my presentation. However, in an emic strategy there is really much less to be reported for the subcontinent and for Tibet; consequently, there is not too much to report etically. I do hope that none of you ever took seriously that ghastly welter of sheer nonsense and the phoney output of the pseudo-Tibetan and pseudo-Indian exotericists, from Mme. Blavatsky to Lobsang Rampa alias Hoskiss. Their tales about rebirth and metempsychosis-related experiences is pure fancy, in the eyes of the informed, good-humored critic; in the eyes of the informed, not-so-good-humored critic, however, this type of writing appears nefarious, subversive, and harmful, apart from being intellectually dishonest. Works like Blavatsky's *Secret Doctrine*, with her constant reference to Himalayan initiates, to a White Brotherhood, to "K" were creations of her fertile, crafty mind. They have nothing to do with the Indian and Tibetan lore; the many learned Tibetan ecclesiastics with whom I talked over the past two decades, including His Highness the Dalai Lama, laughed at these things when they first heard about them; but by now, unfortunately, the Tibetan scholars in the diaspora in India and the West so disdain this genre that they regard it beneath their dignity to talk about it.

The sober and, to the wide-eyed admirers of phoney esoterica, fearful fact is that the Hindu-Buddhist-Jaina, i.e., the autochthonous Indian notions of rebirth have been, and are, far less important to the Hindu and Buddhist—both villager and religious scholar, layman and mystic alike, than they are to the Western convert to pseudo-Indica and pseudo-Tibetica. In the first place, we find almost nothing about rebirth in the canonical Hindu scriptures, the Veda; the casual mention in the somewhat later Upanisads, and the recurrent mention in later noncanonical literature, are like marginalia to the text and the teaching. In no sense is the doctrine of rebirth a dogma to the Hindu. To the "great tradition," i.e., scripture-oriented Buddhist, the doctrine of *karma* is quite crucial indeed, as he explains the total experiential matrix in any living being's life on the etiological base

of his or her former actions and attitudes. The classical Buddhist statement would be something like, "What you are now is exactly the result of what you did, thought, and felt from eternity." We are here in the "great tradition" diction of the scholars; and in this tradition, strange to behold, there is no desire for any sort of empirical verification of the postulated chain of rebirths. On the "little tradition" village level, we encounter thousands of local reports of how a boy or a girl was taken to a place he or she had never seen before, and how he or she pointed out everything and told of everything that had happened there a long time ago. These stories are highly stereotyped and once the narrator embarks on them, the astute listener can pretty much predict the end of it. Yet the Bridey Murphy-type sequence has never been given any sort of serious consideration by "great tradition" Hinduism and Buddhism. For here, the notion of rebirth is *not an empirical but a moral postulate*, a postulate of moral rather than empirical causation. The Hindu and Buddhist theologian's argument, often used to counter Christian and Muslim notions of a one-shot chance for a human being, runs like this: Two twins with the same astrological background, the same family, same education, etc., turn out to be quite different—the one a thief, the other a famous saint. The reason, so the Hindu and Buddhist doctors aver, is that none is a *tabula rasa*, everyone brings billions of former impressions (*samskāras*) along from previous lives—and this accounts for differences where similarities would be expected. This *ex post facto* moral argument appeals to the learned Hindu or Buddhist; empirical, Bridey Murphy style attempts usually bore or annoy him—and such narratives are pointed out as "typical village tales." On the village level however, as shown earlier, no one thinks of *karma* as a single cause of one's life's career: There is karma, and there is the annoyance of gods and demons, there are witches, there is "*taqdīr*," a Muslim word synonymous with *kismet*, introduced during the Muslim conquest a long time ago and amalgamated into the Hindu belief system much as Western medicine now has become a part of the villager's *materia medica*, alongside of spells, curing magic, and charms.

NOTES

1. I use "Hindu-Buddhist" loosely throughout this paper; it covers the shared lore of Hinduism, Buddhism, and Jainism. Though the latter two religions are atheistic in the theological sense, they share the enormous pantheon of divine, semi-divine, and other extrahuman beings whose existence neither the Buddha, nor Mahavira, the founder of Jainism, ever denied, though they attached no importance to them.

2. *Sadhu* is the most general, generic term for "holy man," mystic, saint, mendicant religious teacher, etc.
3. The best study of this fascinating, highly complex problem is by a British scholar, Richard F. Gombrich, *Precept and Practice: Traditional Buddhism in the Rural Highlands of Ceylon* (Oxford: Clarendon Press, 1971).
4. See my *The Asians in East Africa: Jayhind and Uhuru* (Chicago: Nelson Hall Company, 1972).
5. See my essay, "Serendipity Suddenly Armed," in *Quest*, No. 80, Jan-Feb. 1973, Bombay.
6. N. Smart, *Doctrine and Argument in Indian Philosophy* (London: Allen & Unwin, 1965).
7. Nāgārjuna's *Mādhyamikakārikā* is the seminal text of the Mādhyamika or Śūnyavāda school of northern Buddhism, basic to scholastic Tibetan Buddhist teachings. The work has been translated into French and English; the best treatise on Nāgārjuna's work is to be found in E. Lamotte's *Histoire de Bouddhisme Indien* (Louvain (Belgium) 1955).
8. Bharati, "Anthropological Approaches to the Study of Ritual and Belief Systems," in *Biennial Review of Anthropology*, ed. B.J. Siegel (Stanford: University Press, 1971).
9. See my autobiography *The Ochre Robe* (London: Allen and Unwin, 1963; U.S. paperback edition Anchor-Doubleday, New York, 1970).
10. The worshippers of Vishnu and his incarnations. The ubiquitous, mildly spurious IKSCON, "Hare Krishna" kids, visible in all major occidental cities, belong to the Vaiṣṇava category, if viewed taxonomically.

DISCUSSION

VAN DE CASTLE: We're now open for discussion on this paper.

WEINER: I was going to ask a question, but just to reply to the last statement of the paper, I believe that the most basic thought of the whole biblical tradition is that there is only one God, not that there is one god who is big and other gods who are smaller.

BHARATI: Do you mean to say that if the people thought the other power didn't exist. . . .

WEINER: There are many opinions among the people. Obviously, we don't know what they were, but the official doctrines expressed in all the literature we have is that there is only one God. That's the basic statement, just as there is a basic statement in the Moslem faith and that is the basis of the whole religion—that there were those who were more folksy in their feelings and cognitions obviously is so.

BHARATI: I disagree, because after all Moses said, "Don't rush it." But don't say it because it doesn't exist.

WEINER: Oh yes.

BHARATI: Does it?

WEINER: Yes.

BHARATI: Show me the passage.

WEINER: It can be shown, but the question I really wanted to ask was in this interesting paper, inasmuch as etic and emic strategies must be kept apart, is this an etic or an emic. . . .

BHARATI: The emic portion of it was very short. I quoted what the Hindu or the Buddhist teacher or layman would say, and then, of course, the rest of the analysis was an attempt at an etic analysis.

DEVEREUX: I have worked out the distinction between etic and emic (without using these words) in 1937, in the book which had to wait thirty years for a publisher. The idea was very clearly alluded to by me also in 1945 at the New York Academy of Sciences, and in 1952, in the *Bulletin of the Menninger Clinic*. As regards the complementarity of so-called contradictions, in 1942 I published a paper on two totally contradictory sets of Mohave beliefs concerning twins. In terms of psychoanalysis it made excellent sense that there should be such contradictory beliefs. As to "studying psychiatrists from the outside as an anthropologist," that was my job for quite a while, as far back as 1939, so I don't see anything surprising about it. The particular example given here, regarding explanations, singularly reminds me of my four-level explanation of the same phenomenon in my 1952 *Bulletin of the Menninger Clinic* paper.

BRIER: Dr. Bharati, I understand the thrust of your paper is to show the ontological status isn't important, but let me ask you this for the sake of the parapsychologists for whom these kinds of considerations are very important. I remember this morning when you said, "It doesn't matter whether he can levitate or not; the fact that he believes he can levitate . . ." I can understand that framework, but for the parapsychologists, of course, what's crucial is in an objective sense, can the man really levitate or anything like that? And let me ask from your experience, have you ever seen anything within these frameworks that seems to be of parapsychological interest?

BHARATI: Yes, of course, but I was sick.

BRIER: You mean you don't trust . . .

BHARATI: I don't trust my own agency in witnessing things which I can't

explain. I wasn't sick really, but I was starved, underweight, hot and so forth.

BRIER: Well, then let me ask you something. I was very interested in your comment when you said the traditional scholar will not acknowledge these things sometimes.

BHARATI: He may; he may not.

BRIER: Because for years I've been trying to track down various Tibetan phenomena, like Tumo or the running lamas and I went to Geshe Wangyal and I described these phenomena that I was interested in and explained to him, and he said to me, "I don't know anybody that can do these things."

KREITLER: You brought up in your paper, in my opinion, a point of genuine importance: the existence of contradictory beliefs. But before commenting on that, just a short semantic remark. I think it to be a dangerous semantic mistake to identify Aristotelian logic—that is, the logic which doesn't permit contradiction—with cognition. Cognition is something else. It adheres to different kinds of logic including a logic that allows for contradictions. Now, we should keep in mind that avoidance of logical contradiction and the striving for cognitive consonance is a Western fashion and even a doubtful one. Why is it doubtful? Because we can't, in fact, define what it means to be the exact contrary of something. Now in order to understand, as you pointed out, Indian beliefs, we have to accept the existence of so-called contradictory beliefs. I would add that this is true for all cultures. In order to understand a culture, including the Western culture, we have to recognize that human beings generally, not only those under investigation, hold contradictory beliefs all the time. Moreover, a person not frequently quoted here, Jung, once made an important statement which may be the most important one he ever made. The quotation is not exact, but runs somewhat like this: "Don't think and don't say that things have to be either-or because they can be either *and* or."

WALTER: I have two comments and this is an extremely provocative contribution, evidence of very hard work indeed, thinking and doing. Now I want to go back about 2,000 years to Plato. Platonic idealism seems to me to resemble very much what you are saying about people's ideas in India and the Hindu and Buddhist ideas, of reality. What Plato ascribed is that what really exists is what we think, what we feel, but you exist in me because I can see you and feel you and hear you, and I appreciate you in all sorts of ways. There are various ways but I won't go into that because of lack of time. Now this goes back a long time to Athens and produced, in

effect, the foundation of our whole Western culture or Western philosophy a long time ago. Now the other thing I wanted to suggest was your suggestion of the way people look at one another in India, their feelings about spirits and one another, reminds me very much of the interpretation of the drama of Luigi Pirandello "Sei Personaggi in cerca d'autore" (Six Characters in Search of an Author), in which the interpretation given by English scholars is that Pirandello's notion of personality is that one's personality is a mosaic of reflections of what you think other people think of you.

BHARATI: Dr. R. D. Laing says that all the time.

WALTER: Well, this is a drama, and Pirandello was one of the great writers, very prolific, and wrote many plays and essays, and I feel this is a very important point: that what you think of me is what I think all of you think of me. What I think of myself is what I think all of you think of me and other people too. I think the mosaic of reflections is a very important factor and I think that what you were saying about the Indian culture relates to our culture in a sense, as he said, that this is a reflection of one's ideas about or of other people, and they include the disembodied realities. That's complicated and it adds another factor. I think it's true of us, that what I think of you is not only what I think of your bodies but of what I think of what you have said and what you have all said and what you feel and what other people said 10,000 years ago.

VAN DE CASTLE: Dr. Skinner.

SKINNER: I just want to call attention to the problem between the emic and the etic. You said in terms of your own experience that you didn't believe it and you attributed this non-belief to your physiological state. Don't you think there's a problem here in terms of this relationship, really the dialectic between the emic and the etic?

BHARATI: At that time I believed it completely.

SKINNER: Oh you did believe it? Because of a kind of emic?

BHARATI: I believed it as part of the emic situation, but many years later it does seem to me that it could be explained in other ways, probably as a pathological occurrence.

SKINNER: What was it?

BHARATI: Well, I walked through India barefooted without eating much food and it was 120 degrees. Therefore all kinds of things that are generated

in this training might have set my mind in a particular framework receptive to things suggested in the literature.

SKINNER: Such as?

BHARATI: Such as seeing gods when other people didn't see gods around. As Dr. Thomas Szasz recently said: "If a man speaks to God, he prays. If God speaks to man, he's insane."

SKINNER: In terms of your suggestion about the Mosaic situation, Talmudic scholars and scholars of ancient Hebrew, I learned in my catechism, "Thou shalt have no other Gods before Me," which implies, it seems to me, that there were other gods implied.

HALIFAX-GROF: This is just a very brief comment. An Afro-Cuban informant once said to me, "You know, I don't believe in ghosts; but a world without ghosts is quite boring."

BHARATI: That's the trouble with a well-informed informant. The man knows too much of what people say here.

HALIFAX-GROF: From my point of view, I find it a very interesting stand, in terms of the "emic/etic" distinction.

THE END OF A LEGEND:
A NOTE ON THE MAGICAL FLIGHT

E. J. DINGWALL

Perhaps the most dominating feature in the life of primitive man was fear and mainly fear of the unknown. Like other mammals man was terrified of what seemed unusual, unnatural and out of the common run of ordinary life. Unlike other mammals, however, he was gifted with the slowly awakening power of curiosity about the world around him and thus was able gradually to evolve a system of beliefs in order, as he thought, to explain the mysteries with which he was surrounded. Thus the whole complex system of magic began to arise and explanations, based almost wholly on false premises, began to gain currency. The dream life provided just what was needed to create a fantasy world of beings more powerful than himself, gods who were able to fly, wield their thunderbolts and even at times darken the sun itself. As the Latin poet Statius († c. 96 A.D.) said,

Primus in orde deos fecit timor,

asserting that it was fear in the world that first created the gods.

It was in this world of fear that primitive man lived and in order for him to be able to enjoy life the fear had in some way to be banished or at least lessened. The gods had to be propitiated: the ghosts of the dead whom he met in his dreams when he was out-of-the-body had to be dealt with and the revenge of those slain in combat had to be averted. The activities of primitive man centered largely around rituals and ceremonies dealing with the unseen world. Ghosts tormented him, just as they do the modern spiritualists, and had to be driven out of unfortunate persons whom they were thought to possess. Indeed the mind of primitive man with regard to the unknown was very similar to that of the modern occultist, the roots of whose beliefs lie deeply buried in the past, for in those days there was no division between the possible and the impossible. The savage will eagerly devour the flesh of fierce animals just as he will avoid that of timid creatures. Belief in sympathetic magic was widespread and, as Jevons suggested in 1902, this form of superstition was probably still credited by four-fifths of mankind even at that time.

It was in the world of dreams, however, that primitive man was able to transcend his natural limitations: out-of-the-body experiences were common and magical flight became a reality.

Just as today, epileptiform and other conditions suggesting mental instability were regarded as connected with the spiritual world, so these manifestations were thought of as indications of divine favor. It was from phenomena such as these that the whole shamanic complex arose, and produced offshoots that can be observed in many parts of the world. In essence, as Eliade has so clearly shown, shamanism is an archaic technique of ecstasy combining magic and religious mysticism. The shaman in his trances leaves his body, ascends to the sky and comes into contact with the spirits. This ascension seems to be a primordial phenomenon and clearly must be closely connected with the world of dreams, hallucinatory experiences and a deep feeling for freedom and the desire to obtain it. In the trance the fetters which confine the body are loosened and the soul is freed. As Pope puts it:

The world recedes; it disappears;
 Heav'n opens on my eyes; my ears
 With sounds seraphic ring.
 Lord, lend your wings! I mount! I fly!
 O Grave! where is thy victory?
 O Death! where is thy sting?

This feeling of being compelled to remain on earth when the birds rose into the sky is doubtless connected with the widespread bird symbolism which goes back into the remote past of the Lascaux beaked man. I shall not here attempt to discuss the incredible paintings of Lascaux and their probable magical significance. The painting of the masked bird-man falling before the dying bison arouses much speculation, although the fact that the bird mask had some symbolic meaning would appear difficult to dispute. What is clear is that primitive man found himself without a freedom he craved and it was only in his dream life that he rose above his earthly limitations and, gifted with faculties transcending the normal, was able to fly like the birds, was master of heat and cold, could hold converse with spirits and perhaps sometimes be possessed by them.

We may now well ask how many of humanity's holy men have been thus credited in the myths of their followers with such superhuman feats. Was not Elijah carried to heaven in a chariot of fire and did not his mantle which fell from him exhibit strange powers (Kings II, Ch. 2, verses, 11, 14)? Did not Jacob in his dream actually see a ladder set up on earth with its

top in heaven and the angels of God ascending and descending? Did not Jesus after his survival of death speak of ascending to his Father (John 20, 17) and did not his disciples later see him taken up and a cloud receiving him out of their sight (Acts, 1, 9)? Although Buddha, it is said, disapproved of miracles, stories were later told which attributed to him astonishing powers. Thus after his Illumination he is said to have risen into the air, then cut off portions of his body which, falling to the ground, were then reunited. In these feats Muhammad was not far behind. Here tradition tells not only of his ascension and magical flight but of a strange incident in which his heart and even his belly were opened in his sleep. Two angels visited him, took out his intestines, washed them, filled him with faith and then carried him to heaven where revelations were given to him.

These stories of bodily dismemberment appear very early in accounts of ecstatic experiences where stories of magical flight and ascension are involved and they are clearly of importance in the interpretation of the legends. Buddha's body is broken and reunited; a spear pierces the side of Jesus on the cross; Muhammad's breast or belly is opened. These rituals were not confined to remote antiquity. They are recorded as occurring in modern times in various parts of the world and are clearly an essential part of the shamanic ecstatic experience. Thus among the Turki Yakut of the upper Lena basin initiation meant that the body of the candidate had to be cut up, the bones purified and the eyes removed. It is then believed that a mythical bird comes to restore the body and the idea of the bird is itself linked with trees and with the ideas of a great tree like Yggdrasil of northern mythology, the roots of which are in the underworld of death while the trunk rises upwards into the heavens.

In ancient China similar ideas were once prevalent. Chinese, like Indian, thought was filled with ideas of the common occurrence of paranormal phenomena and wise men and magicians abounded. Ascension into Heaven was by no means a rare event and the notion of magical flight was familiar in folklore and legend.

Coming to more modern times, the Australian aborigines have long been noted for their strange initiation ceremonies. In Southeast Australia Howitt reported that it was believed that the medicine men were able to fly to the abode of spirits, from whom paranormal powers were derived. To reach it they sometimes throw up a cord and climb up, or a cord descends for them to make the ascent, as is said of the Dieri tribe in central Australia where out-of-the-body experiences are as common as in England today. It is in Australia also that we find traces of dismemberment stories similar to those already mentioned. The body of the candidate for initiation is opened, organs are removed and magical stones are introduced. Then

crystal-like objects are produced from the body of the magician, just as similar objects are thought to be apported by modern mediums. Indeed, phenomena among these primitive people are reported by Ronald Ross in a way which cannot fail to remind us of beliefs held widely today in western Europe. Cords emerge from the mouth of the operator in certain magical ceremonies and these are said to resemble "ectoplasm," whatever that may be. Telepathy and hypnotic phenomena are also reported, but an account of these is beyond our terms of reference.

Again, among the Toradja people of Celebes similar stories have been reported. Here a candidate is carried aloft to learn his sacred duties, while among the Sea Dyaks of Borneo the preparation is more complicated. The candidate here has to have his head cut off to get at his brains, which can then be cleansed and his vision improved by gold dust thrust into his eyes. Thus the material body has become a spiritual body with clear understanding and clear sight.

Again in North and South America these legends are known, and dismemberment again plays its part as it does in Malekula and the New Hebrides, where initiation is a complex rite. The persons called *Bwili* suffer dismemberment and restoration and are then able to take the form of birds and fly and even sometimes act as spirit lovers, just as reported by parapsychologists today, a case being shown on English television in 1973.

The fact that these extraordinary beliefs are so widely distributed seems to point to some common origin, the roots of which lie deeply buried in the mind of primordial man. In the early part of this paper I mentioned some of the theories which have been advanced and at the moment of writing I find myself in substantial agreement with them. The helplessness of primitive man, coupled with the gradually emerging power of thought, the form of which was so clearly influenced by oneirocritic factors, were clearly to result in an appeal to higher forces which might be flattered or appeased.

Must helpless man, in ignorance sedate,
Roll darkling down the torrent of his fate?

asked Samuel Johnson, and early man's reply was No, since the gods might still save him. Free in his dream world he would be free when awake if only he had the means and the knowledge to make his dream life a reality. Thus arose the whole crazy framework of magic and religions based on a cluster of superstitious beliefs and practices, which although they may have contributed something to the development of an ordered society, have in Frazer's words not only filled jails and madhouses with innocent and deluded victims but have even pursued the dead into the grave and beyond

it and gloated over the horrors that their foul imaginations have conjured up to appall and torture the survivors.

Let us return to some of the odd practices and rituals through which man thought he might become master of his fate. We need not suppose that the shaman in his ecstasies or the magician in his beliefs in his paranormal powers were all charlatans and conscious deceivers. Undoubtedly, elements of deception entered into their performances at times but, generally speaking, these initiates were far removed from persons who, although using these ancient beliefs as material for their routine, were simply traveling showmen exhibiting strange powers to puzzle the ignorant and the credulous. Early records have many stories of such magicians. Thus in the *Jatakas*, a collection of folk tales about Buddha's deeds which was put together after his death, such an event is described. In this tale the magician began by growing a mango tree and then throwing up a ball of twine which, unfolding, caught in the branches of the tree. Rapidly climbing up the cord the magician disappeared and then, to the amazement of the crowd, bits of his body fell out of the sky. These were collected by his assistant, water was sprinkled over them, the parts were reunited and the magician restored to life.

In the much later memoirs of Jahangir another curious Indian story is related. This Mogul Emperor whose real name was Salim assumed the title of "Conqueror of the World" on his accession. Among the stories it is related that instead of a cord or rope being hurled upwards a chain was thrown up, up which a dog ran and disappeared, followed by other animals. The animals in this case were neither dismembered nor thrown to the ground. The final step was the falling of the chain which was then packed into a receptacle. Although it is possible that performances of this kind were perhaps staged for the daily appearance of the Emperor at the Red Fort at Agra, it is more probable that such entertainments were held at times when Jahangir was enjoying the cool of the evening in the palace garden. Indeed, a Mughal miniature from the *Jahangir Nama* shows him sitting in his box-throne by a stream in the garden, leaning on his gold and silver cushions and surrounded by his attendants, watching some dervishes in white turbans and colored coats dancing before him and clapping their hands.

One of the best known of these tales is that recorded by Ibn Batūtah. He was probably the most famous of all Moslem world travelers who flourished in the fourteenth century and he describes many of the extraordinary things he had seen. Among them was a performance by some Chinese magicians in which one of them took a ball of wood perforated by holes into which some ropes were passed. Seizing one of the ropes he threw it so far

into the air that its end was lost to sight. One of the children who were assisting him was then told to climb up the rope, which he did, and completely disappeared. The magician called several times but getting no answer he took hold of the rope and then disappeared himself. Bits of the child's body then came tumbling down, the head being the last to fall. Finally the magician came down himself with his clothes stained with blood. The pieces of the child's body were then put together and after giving the dismembered corpse a kick he caused the child to stand up, a complete restoration having been effected.

A similar miracle is recorded in the *Liao Chai*, a collection of stories by Pu-Sing-Ling who flourished in the seventeenth century. In the tale a magician arrived carrying a box and accompanied by his son. As a proof of his skill in psychokinesis he was able to detach fruit from their stems so that they fell to the ground. Then, opening his box, he took out a rope and told his son to climb up it so as to reach the gardens of the sky and gather a peach from one of the trees. The child climbed up and disappeared and soon a peach fell to the ground, but to the horror of the spectators it was followed by the rope and by dismembered portions of the child's body. In despair the magician declared that his son had been captured by the celestial gardener and so he buried the parts of the child in the box which he closed. After having rubbed the top of the box he spoke to the child, who jumped out and with his father bowed their acknowledgements.

Similar stories had been circulated in Europe from early times. Thus it was said that in the time of Louis the Pious, about 875, a certain Sedechian, who was a physician by profession and of the Jewish religion, performed some very surprising magical experiments before certain high officials. Persons were seen to be practically dismembered, their feet, legs and hands cut off, yet finally they were all perfectly restored.

Even in old Irish legends these stories are found. Thus in the tale of Teigue O'Kelly of Hy-Many we read of an incident in which a wonder-worker showed off some clever tricks. In one of them he took a silk thread from his bag and threw it up so that it seemed to stick fast to a certain cloud in the air. Then from his bag he pulled out a hare which ran up the thread and this was followed by a little beagle and then by a small boy whom he ordered to follow the animals. After this he pulled out of another bag a young lady and told her to follow the others up the thread and try to stop the hare from being hurt by the dog. She ran up the thread and disappeared. The magician seemed very troubled about what was happening, thinking that the dog would eat the hare and that the two young people would make love. So he began to pull in the reel of thread as fast as he could. As he pulled it he found the boy with his arm around the girl's waist

and the hound picking at the bones of the hare. Furious with anger he drew his sword and cut off the boy's head, but this did not please O'Kelly at all and he showed his displeasure. The magician, seeing O'Kelly's anger, said that he would make everything all right and so he picked up the head, put it on the body again and the boy immediately stood up. However the boy's face was all twisted backwards and sideways and at this unpleasant sight O'Kelly was again disturbed and said that it was better for the boy to be dead than to be in such a plight. However, on hearing this the magician seized the boy and rapidly twisted his head back into the right place. Later he himself disappeared altogether, leaving the spectators agape with astonishment.

E. Melton, supposedly an Anglo-Dutch traveler, described some Chinese performers whom he saw in Batavia in about 1676. One of them took a roll of twisted rope, and taking hold of the end of it he threw it up into the air with such force that the observers were unable to see the top of it. Climbing up the rope, he showed such agility and speed that finally he was lost to sight. Then a child fell down out of the air in various pieces, the head being the last to fall. The pieces were collected in a basket and finally were fully restored. How far this tale can be credited it seems now impossible to say. Melton was supposed to have been of a distinguished English parentage, but there are some indications which suggest that his reliability was somewhat questionable. His account of Egypt, which he was supposed to have visited in 1661-63 was largely borrowed from Father J. M. Vansleb's account of his travels which was published in 1677.

Perhaps one of the most curious of these performances was that described in German folklore and which has been included in modern collections of stories connected with the town of Magdeburg in Saxony. An early version of the tale was that narrated in the sixteenth century by J. Wier, an expert in demonic activities. He says that before a large audience a magician, after having taken a collection from the persons present, exhibited a pony which ran around in a circle. This performance did not seem to satisfy the audience since after it was over the magician protested that he was not being paid enough money. He then declared that he wanted to rise into the sky and for this purpose he threw a rope up into the air, up which the pony proceeded to run. The magician seized the tail of the horse and rose with it and his wife, catching hold of her husband and in like manner her maid, they all rose in the air so that the audience was able to see them touching each other as if linked. While the people were gazing with astonishment at what was happening, there arrived by chance a passerby who asked them what they were looking at. They told him that the magician and the pony had risen into the air. But he said that he had just seen the magician in the

street entering an inn, whereupon the people, seeing that they had been deceived, all went home.

This incident, altogether apart from its symbolic significance, is of very considerable interest from the psychological point of view. For it is here that we can see the emergence in the narrative of the idea that some kind of hallucination might have been generated in the observers when they were apparently seeing so great a miracle. Thus it is here that can be detected one of the earliest of the modern theories that the performance of rope tricks of this kind involve collective hallucination on the part of the observers. Certainly as the story is told it does seem as if the performer was standing in the circle around which the pony was running in the first place and that it was in this circle that the rope was thrown up and the trick performed. It is not easy to hazard any guess as to what actually occurred but at the same time, as in so many alleged paranormal phenomena, it is not at all easy to imagine what could have been the precise circumstances that led the observers to describe what they saw in the terms that they used. Perhaps the whole incident never occurred at all and it is part of folklore handed down to us in a distorted form. I do not think that hitherto the tale has been traced earlier than 1568 when Wier's book was published, and he gives no hint either of when it precisely occurred or of the source of his information.

If we consider the spectacular nature of these old stories, all of which show the gradual development of a trick founded on the legends of dismemberment, the change from a material to a spiritual body, the ascension and the attainment of paranormal powers, we need feel no surprise that this slow recasting of ancient beliefs should end in a simple experiment performed by itinerant magicians. Thus this so-called rope trick was being reported as occurring in India by Western observers up to our own time and there are very many accounts of it in European literature. A curious example was that told by Colonel Henry S. Olcott, the friend of Mme. Blavatsky and President-Founder of the Theosophical Society. He was one of those who in his later years was privileged to talk to the Mahatmas. From what we know of the Colonel it seems that he was a good example of the nineteenth century occultist, a man of extreme credulity and simplicity who was quite unable to make any careful observations or to record accurately what he thought he had seen or experienced. Thus it is impossible to put much value on any testimony given by him. Nevertheless, his story of what Mme. Blavatsky told him of an incident which happened to her is of considerable interest since it provides a vivid account of a magical ritual containing many of the classical elements which we have been discussing. Although this tale, derived as it is from two such odd characters as Olcott

and Mme. Blavatsky, may have many embellishments, it is worth telling for its own sake.

Mme. Blavatsky, so Olcott stated, was present when a party of African jugglers gave a performance. Before a large crowd of many hundred Europeans, Egyptians and Africans, the magician came out on a bare piece of ground leading a small naked boy by the hand and carrying a roll of tape some twelve or eighteen inches wide. After conducting a few ceremonies he took the tape, whirled it round his head several times and then flung it into the air. It kept on unwinding from the stick on which it was wound until it finally disappeared altogether. Driving the end of the stick into the ground the magician beckoned the child to approach and pointed upwards. The child bowed in compliance and began climbing up the tape, which was as straight and stiff as if made of wood. He then passed into a cloud and disappeared. After a few minutes the magician shouted at him as if to order him to come down, but having received no answer he himself began to climb the tape. He himself then disappeared. After a moment a shriek was heard in the sky and a bleeding arm, as if cut from the child's body, fell to the ground. Then came another. Then two legs, one after the other, then the trunk and finally the head, with every part streaming with blood. A second child now stepped forward and gathered up the pieces and threw a cloth over them; he then drew back. The magician was now seen coming down the tape and the sword that he had taken up with him was dripping with blood. He then rewound the tape on its stick, wiped the sword and then going up to the heap under the cloth he lifted up the cloth and up rose the child who had climbed the tape, bowing and smiling at the audience.

It will, I think, be admitted that this story recalls the whole complex of legendary lore centering around the magical ascension to the sky, the dismemberment of the climber, the restoration of the broken body and finally the complete restoration of the new man. So spectacular a feat and one so closely connected with the superstitions of mankind down the ages was well worth imitating and producing before audiences whose credulity and imagination would fill in the details and transform a simple effect into a miracle. Conditioned as it was to know what to expect, the public willingly gave testimony to the reality of what was to be almost universally known as the Indian Rope Trick. Let us have a look at some of the reports and make a few brief comments upon them.

In 1890 reports were received in America from travelers in India suggesting that certain aspects of Indian magic were of considerable interest, since when the effects were photographed the resulting negatives were said to fail to show what the observers believed they had seen. One interesting case of this sort was published in a Chicago paper in August 1890 and was

contributed by a Mr. F. S. Ellmore, an amateur photographer who with a friend traveled in India and came across a fakir. While this magician performed his effects his friend made sketches of what he saw while Ellmore photographed the scene. One of the tricks shown by the fakir was that of a cord thrown up into the sky and a child who climbed up it and disappeared. When the article was published it was accompanied by the drawings, which showed that while Mr. Ellmore's friend was observing the tricks the photographs revealed nothing, with no child climbing up a cord, which was not there.

It was stated later that Mr. Ellmore was much interested in the theory that these astonishing Indian tricks were due to hypnotizing the observers, and his story lent currency to the belief, which we have already seen goes back to the sixteenth century. Unfortunately in this case, Mr. Ellmore, under pressure, had to confess that the whole story was a fabrication which he invented in order to publicize his idea of the explanation by hypnotism, and he thought that the reader would probably realize that the whole thing was a "sell."

In 1904 a member of the S.P.R. stated that he knew a certain Mr. Burchett who had seen the effect in India about four years previously. He was not very clear in his recollection as he had made no note of the date and could not give the names of any European witnesses or even the time of day when the trick was recorded. He stated that the audience stood in a circle around an open space in the middle of which the fakir was standing. The fakir took a coil of rope and raised it and it seemed to become stiff and stood about fifteen to twenty feet above the ground. He then told his child assistant to climb the rope and when the child got to the top he disappeared. Suddenly the child appeared again in the open space, but Mr. Burchett could not remember whether he came down the rope or from the outside where he was standing with the crowd. By good fortune Mr. Burchett had made another statement on his experience which he had dictated in 1902 and in which he said that the performance took place in November 1901. In this account Mr. Burchett said that the child vanished when he got to within a foot from the top of the rope, and his voice was heard speaking up in the air. Then the child suddenly appeared again and climbed down the rope to the ground.

It will immediately be seen that the number of discrepancies between the two narratives throws doubt on much of the story. It is a typical account of a mysterious event seen by an observer without any knowledge of trickery and misdirection and, as we shall see, is an account which has been repeated over and over again by later observers.

The interest aroused by Mr. Burchett's account induced the well-known

parapsychologist Mr. F. C. Constable, who had lived in India for some time, to write to an Indian newspaper and ask observers who had seen the trick to write to him. A lady wrote saying that she had seen it in the afternoon of November 1897 when she was standing with others on the verandah of a hotel in Bombay. A magician appeared who did a few tricks and in one of them he threw a rope into the air which seemed to go straight up as far as they could see. A small boy then climbed up the rope till he also vanished and then bits of his dismembered body fell to the ground. The bits were covered with a cloth and after a few words and passes the cloth was removed and the boy emerged smiling at the people on the verandah. Unfortunately this lady was unable to call any witnesses who were on the verandah with her. She expected, she stated, conjurers to do remarkable things which she was unable to account for, and their performances had little attraction for her.

At a dinner about three years later she told this story and subsequently she again saw some fakirs at a small hill-station in Central India. She asked one of them whether he would do the rope trick but he replied that this was not possible since it was done only by certain fakirs in the Northwest Provinces.

In 1929 the S.P.R. received a letter from a correspondent who knew the lady concerned in the above incident. He stated that he knew the hotel at Bombay where she had been on the verandah and on the opposite side of the road was a row of tall trees which rose some twenty feet above the balcony and some forty feet above the level of the road. Now the tree canopy was not more than six or seven yards above the heads of the observers and therefore the field of view overhead ended in the canopy. To account for the story, the correspondent thought that in the heat of the afternoon the witness in a few moments of absentmindedness imagined the whole thing, and when she came to herself believed she had seen it.

In February 1919, Lieutenant F. W. Holmes, V.C., visited a meeting of The Magic Circle, a British society of conjurers, and showed a photograph of what he said was the Indian rope trick. Later in the *Strand Magazine* for April 1919 the photograph was printed, but it was clear that this effect had nothing in common with the classical effect as described by other witnesses.

In 1926 an interesting book by M. F. de Croisset called *Le Féerie Cinghalaise* was published. For our present purpose the most noteworthy sections of the book are those dealing with collective hallucination in relation to Indian magic. He tells a number of stories about photographs and films which when developed showed nothing of the performances and were it not for the lack of any corroborative detail his treatment might be both interesting and important. My good friend Dr. Servadio knew Croisset as an

amusing but completely unreliable writer, some of his books containing pure inventions. However, there is no doubt that it had some influence among those who believed that persons had seen the rope trick in its classical form but had been hypnotized by the magician without their knowledge.

One story that may have influenced Croisset was that told by Lord Frederic Spencer Hamilton, the diplomat and M.P. who at one time edited the *Pall Mall Gazette* and who in 1921 wrote a book of reminiscences called *Here, There and Everywhere*. The tale concerns the Chief of Police in Calcutta, one Colonel Barnard who retired from service in 1897. In this story the trick was said to be performed in a small courtyard which was filled with dense smoke from substances burning in two braziers. The story abounds in improbabilities, vague statements and what seem to be inconsistencies. But the main point of the narrative was that although the tale resembled the classical feat, Colonel Barnard's photographs revealed nothing of what Barnard and his friend had observed, since they showed no details of any ascending rope, child or even fakir. How far there is any truth in this story it is impossible now to ascertain. Possibly Colonel Barnard was pulling Lord Frederic's leg or maybe he thought that he would tell a tale of something that had occurred in India that had mystified him.

Towards 1934 the Occult Committee of the Magic Circle decided to make an investigation of the evidence for the Indian rope trick and we contacted a number of people who maintained that they had seen it. In 1934 a report was issued of the meeting at which our findings were made known and at which very distinguished retired Indian administrators were present. One case which we looked into was mentioned by a Sergeant T. Secrett who in his book *Twenty-Five Years with Earl Haig* (London, 1929) described with many lurid details how four people saw the rope trick, but any attempt to confirm his statements failed. A letter to Mr. Secrett in care of his publishers brought no reply and Lady Haig wrote to say that she had never heard of the story.

Another writer who sent his account of what he had seen was Colonel H. Cornes, who had seen some kind of rope trick when he was a subaltern in Bombay. A crowd had assembled in a small street and the verandahs of the houses on either side bulged out, although not sufficiently to let people touch each other across the street. A troupe of conjurers were performing and they set fire to five little heaps of black fuel from which a cloud of smoke blocked out the upper stories of the houses. A rope was then thrown up into the smokescreen and a small boy climbed up it. When the boy had disappeared, the rope was jerked and fell down and while they were doing another trick the child appeared standing on one of the low balconies.

Colonel Cornes in discussing the case thought that there would have been no difficulty in the rope being caught by an accomplice in an upper balcony and thus held tightly while the boy climbed up it. It is possible that Colonel Cornes observed the same kind of trick that Colonel Barnard described, since both state details about the thick smoke. But in the case of Cornes it does not seem to have struck him that what he had seen was in any way remarkable.

Another interesting story was communicated to the Committee by Lady Waghorn, the wife of Brigadier General Sir William D. Waghorn who was at one time President of the Board of Indian Railways. She stated that both she and her husband had seen it in 1892, so her account was over forty-two years old, although she had written a short account of it in 1926. In her story a rope was thrown up to about twelve feet and a boy of twelve climbed up, disappeared and then reappeared a few minutes later sitting in a tree about 100 yards away. Neither her husband nor she herself apparently thought it was very odd; they made no notes of what they had seen and apparently did not tell any other Europeans at the time any details of the incident. What may have happened was that she had seen something of the kind and later what she had heard about the rope trick made her think that what she had seen was this actual effect. Sir William himself when questioned suggested that they were both hypnotized and imagined that they had seen something that never happened.

One of the most interesting accounts received was that sent in by Mr. G. H. Chapman, whom I knew well and who was a very intelligent and honest person. He said that in the center of a circle was a coiled rope about twenty feet long. The rope was unwound and then stood up seven to eight feet high. Then at a word the rope collapsed in a heap and no one touched it or climbed up it. The interest of this story lies in the fact that when it was first sent to the Committee it was said that Mr. Chapman had actually seen the rope trick in its classical form; when the affair was analyzed and the percipient questioned it was shown that the effect had practically no relation to the effect as we know it. Thus the efforts of the Occult Committee of the Magic Circle to obtain a single reliable account of a percipient who had seen the rope trick in its classical form and was able to provide convincing evidence of this were without success.

Before passing on to some account of other theories, I ought perhaps to say something of the statements made by Dr. Rudolph von Urban in his book *Beyond Human Knowledge* which was published in 1958. Urban was at one time connected with Freud's early work and he and a colleague, Dr. A. Pilcz, were apparently of the opinion that a number of tricks by Indian fakirs were due to mass suggestion. For example, it was stated that Pilcz saw

a version of the rope trick and photographed a movie of it and not a single incident which had been witnessed by the entire audience was registered on the film. It is stated that Urban told Dr. A. Puharich a similar story in which the classical form of the trick was shown, including the dismemberment. Here again the film when developed showed nothing except the fakir and his assistant standing motionless beside the rope. Thus there are a number of critics who actually believe that the explanation of the classical trick is mass suggestion or some form of telepathic impressions imposed on the audience by the fakir. Yet in not a single one of these stories so far have we any convincing evidence that what actually happened was what was described by the percipient.

One of the most curious statements in connection with suggestion and mass hypnosis was that said to have been given to Count Perovsky-Petrovo Solovovo by Mr. Carl Vett at the Paris Congress in 1927. In this statement Mr. Vett is said to have related a story that he had at one time seen a performance of something like the rope trick in India where the fakir climbed up into the air and vanished. He stated that while other persons present saw this event he himself saw nothing of it, the fakir remaining standing on the ground. I find this story very odd. Although Mr. Vett, whom I knew very well, must have realized the importance of this observation, yet he never at any time told me of it and I am not aware of any publication in which he described it in detail.

In 1957 a curious book was published in New York by Mr. John A. Keel entitled *Jadoo*. Mr. Keel was a journalist specializing in adventures and intriguing enigmas of various kinds. His speciality was the forbidden arts and he dealt with matters such as black magic, voodoo and wrestling with crocodiles. In his adventures in India Mr. Keel seems to have been very lucky in what he saw. One day when he was looking for miracles he found himself at Secunderabad where he heard about a remarkable faith healer. Finally he found the old man who proceeded to tell him a whole series of facts about himself which astonished him. Finally Mr. Keel asked him whether he had ever seen the rope trick. The old man said that he had performed it himself and then told Keel that he could show him how it was done, and to Keel the secret seemed so simple that he could never have thought it out by himself. According to Keel, the secret does not rest in the ground nor in the rope but in the air. Wires hold the rope up. The performance was always at dusk when the lines were not visible but, it would be objected, the trick was performed in open fields and not under trees where invisible wires could be fastened. According to Keel the site of the performance was always in a valley between two hills and the invisible line was stretched across the valley. Thus the horizontal wire is the secret of

the Indian rope trick. When the boy climbs the rope and disappears he merely climbs out of sight because the spectators are night-blind on account of the lanterns or torches on the ground, and all the boy has to do when he gets out of range of the lights is to travel hand over hand along the wire. It was easy to throw the rope up over the wire since it had a small wooden weight at the end which would make it easier to throw it upwards. Once the child was out of sight, the magician, feigning anger, would climb up the rope and the audience would think from the noise going on aloft that a fight was in progress. Taking bits of some dismembered animal from parts of his clothing, the magician threw them down to the ground, where an assistant put them into a basket. All the boy had to do was to climb inside the clothing of the magician, which was fitted with a special harness to support him. When the magician reached the ground the boy slipped out of his robes and hid behind the basket while the magician shook the rope and dislodged it, and while the spectators were looking at him the boy got into the basket, finally making his appearance.

Although my friend Dr. Servadio in an article in *La Stampa* in 1959 seemed to think there was something to be said for this story and the explanation of the trick concerned, I myself have grave doubts about it. Whether or not the whole story is fictional I have no means of telling, but it does seem to me that there is some confusion between this account of the rope trick and what is called *burt* or rope-sliding in India. A rope is extended from a hill over a ravine and down to a knoll and drawn so tightly that it is possible to slide down it. A kind of saddle is mounted on the rope on which the slider or *bada* sits. In order to prevent it slipping off the groove on which it travels down the wire, bags of sand are fitted on either side and the rope is first of all saturated with water in order to diminish the heat caused by the friction of the descending saddle.

The meaning of this ceremony has, I think, never been fully explained and its origins may now be lost. Those who perform it believe that in some way it prevents the failure of the crops. However this may be, the account by Keel of a wire suspended between two hillsides is suggestive of a *burt*, and the two stories may have been amalgamated and perhaps told to Keel who made it up into the tale told by the old fakir. What seems clear is that Keel could have had a very small acquaintance indeed with previous accounts of the rope trick if he thought that this explanation would indeed be one which could be seriously considered by students.

Although Western conjurers have long been interested in the rope trick, their discussions about it, as we saw in the report of the inquiry by the Magic Circle, rather suggest that their view is that no such trick in its classical form has ever been performed. It is true that a few conjurers still

believe that the trick when seen performed is due to mass hypnotism. One of these is Mr. Gogia Pasha, who is well known as an international entertainer and is the son of an Egyptian jeweler. He stated that although he had never seen it himself, both his father and his grandfather had seen it, a typical response from a person who, having described a miracle, was asked whether he had ever seen it himself.

Although Mr. Gogia Pasha confessed he had never seen the rope trick, one British parapsychologist maintained that he had. This was the late Mr. Harry Price, who arranged for the performance of the rope trick to take place at a village in Hertfordshire by the Indian showman Mr. Karachi. Although Mr. Price did not go so far as to say that he had seen the classical rope trick, he did maintain that he had seen a modest representation of it. Not only was it shown but it was photographed, and the child did climb up the rope for a few yards while the rope was standing on the ground to a height of about eight feet. In this experiment two ropes were used and according to Mr. Price the secret was obvious. Certainly it was a miserable imitation of the magical flight, the ascent to the sky, corporal dismemberment and the putting on of a spiritual rather than a natural body. It was, one might say, the end of a legend.

DISCUSSION

BRIER: We have time now for discussion.

HALIFAX-GROF: The theme of dismemberment occurs in the framework of Christ's life in a very obvious way, and that is in the context of the Last Supper and Holy Sacrament, the symbolic dismemberment of Jesus and the ingestion of his body and blood. I think there are some very interesting relationships to this event and the theme of dismemberment and cannibalism.

DINGWALL: Dr. Halifax-Grof is quite right. I didn't want to offend anybody by dealing with the Last Supper.

SERVADIO: I was very interested by Dr. Dingwall's paper because three or four years ago I gave a lecture on the rope trick and of course I assembled a great deal of material. I found much more material, of course, in Dr. Dingwall's presentation so that when I publish this work of mine, I will take advantage of all that Dr. Dingwall has assembled. I'd like to say a few words about that man Keel. Now Keel, rightly or wrongly, says that he got the secret of the rope trick from a certain man who after some hesitation

told him how the trick was done. And he says that there is a horizontal rope taken from one side and from the other side by two different men in particular situations of light which, of course, must be not particularly good. Then of course, nobody thinks of looking laterally, everybody looks upwards, so that when the rope is tied, another rope is hung onto the horizontal rope. This is what Keel says more or less. The book appeared a few years ago, but this is his explanation. Now I don't know if this is *the* explanation or a possibility, but I don't know if it is an invention—this, of course, I cannot assess.

SERVADIO: Dr. Dingwall's most stimulating paper has shown once more very clearly, it seems to me, one basic reason of many of our misunderstandings and clashes. Dr. Dingwall is one of the purest and most honest representatives of one school of thought in parapsychology. His belief is that facts exist *per se*, and that if there are facts that we call parapsychological for lack of a better denomination, our duty, as clear-minded researchers, is to make a *tabula rasa* of all our possible hopes, expectations and fantasies, and sweep away everything which is not a solid, well-established fact.

This viewpoint is at one extreme of a series. I am reminded here of a lively discussion between the then No. One of Italian anthropologists, the late Ernesto De Martino, and Mircea Eliade. Commenting upon the purported flights of the shamans, Eliade said more or less that his measurement and evaluation of the shaman's flight was not at all the same he would have adopted observing the flight of a plane. The paramount importance, for Eliade, was the *idea* of the flight, what this idea represented for the shaman himself and for the Tungusi tribe, etc. To which De Martino replied that his viewpoint was completely the opposite, and that if he had heard or read some more or less plausible information about a shaman *flying*, he would have gone to the end of the world with a team of cameramen and all the necessary equipment, to record the event for the posterity.

In *The Teachings of Don Juan*, by Carlos Castaneda, we find the same dichotomy. Don Juan gives Castaneda some beverage, after which Castaneda has a "flying experience" that lasts quite a long time, seeing from above, and with great precision, buildings, things, people and panoramas. When his usual state of consciousness is regained, he asks Don Juan: "Did I fly, or not?" And Don Juan replies that this is a typical question of a man who sticks to a certain kind of reality and does not admit that "realities" can be many, and that there is no reason to think that the reality of the man in the street in any part of our world is *the* only reality, or the one we should give prominence above the others.

It seems to me that many of our controversies have a similar origin. For some among us, the essence of reality is non-material, and what appears to us as a "fact" is one little fold in the great Maya's veil—which means that psi phenomena are more elusive than others because they might sometimes and in part belong to another fold, to a "different" reality. This could mean that our attempts to circumscribe them in our customary reality could be compared to the efforts of a natural scientist who should want by hook or crook to study fishes only by taking them systematically out of the water—nay, to establish the "reality" of fishes within the boundaries of a world without water.

Can there be an encounter between the two opposite viewpoints? Between, say, the position of an Eliade and that of a De Martino—or of a Dingwall? At the bottom, no. The only sensible thing would seem to be: a) that those who more or less take a position which could be traced back to platonic idealism should view contemporary science—and parapsychology—as one quite legitimate if partial approach to a specific kind of reality; and b) that those who want hard-boiled *facts* should keep in mind that after all, theirs is one particular *Weltanschauung*, and that they should not *a priori* condemn other *Weltanschauungen* as being by definition preposterous, superstitious, unthinkable, or even dangerous to human thought if not altogether to humankind.

BRIER: Do you want to comment, Dr. Dingwall?

DINGWALL: I don't think there is very much to say. I quite agree, of course, to what he says to some extent because Eliade is a man who is not interested in just paranormal work. I think he's very wise to keep quite clear of it. If he had attempted to deal with the rope trick, he would have failed. Of course, he doesn't know that particular side at all. The side he does know, I think he is brilliant at.

BRIER: Dr. Kreidler.

KREITLER: Dr. Dingwall, while speaking so beautifully about the end of one legend, in fact supported another legend: the legend of fear as the source or the cause of religion, culture and science. Inspired by this "new legend" I can imagine a symposium held by anthropologists in the year 3000. Our future colleagues would say that anthropological findings and their computerized interpretation showed that the twentieth century man—and this could be proven by his products—was utterly afraid of himself; therefore he created psychoanalysis. He was frightened by the cosmos, therefore he created astrophysics; and more than everything, he was afraid of human society, therefore he created sociology. But strangely

enough the psychologists of the twentieth century found that people didn't show much evidence of being afraid. In fact, now seriously, we don't find too much direct evidence of fear, and I doubt that the interpretation of fear as a source of religion is valid. Were fear or anxiety the main motives of human behavior, we would not strive toward an uncertain future but stick to the well known present. There would be little development and hence no need for anthropology. Therefore I think, as most of us do, that we deal with science because we are curious. Further, I would say that the science of the ancient people—the way they explained the world by legend, by religion, by miracles, etc., was also or mainly caused by curiosity. And this brings me to a second point Dr. Servadio made: the idea of an alternative reality. This idea was developed into a full-fledged theory by LeShan. Fine. It is possible to approach the problem in this manner. But by doing so we prostitute science. Because it is poor science to invent a psi-propagating ocean in order to explain the telepathic performance of some dolphins. As long as there is neither any plausible evidence for the existence of such an ocean nor any suggestion in regard to its laws, it should not be postulated. And the same goes for the alternative reality as an explanatory concept for psi phenomena. It does not help us to understand ESP even if, instead of calling it alternative reality, we call it altered state of mind. If parapsychology wants to remain or to become a part of psychology, not only of "para," it has to be a science, and being a science means, at least to me, to explain the phenomena in terms of our laws, and if our laws don't suffice, to develop other laws that either would not violate hitherto successfully applied laws of nature or could substitute for them. Of course, we would try to do this, not because we are frightened by lack of knowledge, but because we are eager for more knowledge. And knowledge means relating the unknown to the known.

BRIER: Let us hear from Sir Alister Hardy.

HARDY: Just a short question. Have you ever heard of the theory that the rope may be made with a series of cobra bones within it, and that as it's pulled through the hand, they can be locked in a certain position and pushed up. There was a photograph in the *Strand* magazine about 1910, I don't know the exact date.

DINGWALL: Yes, I have the date here.

HARDY: Oh, you have, yes—of a boy at the top; and I think the person who took the photograph, an army officer, said he thought that was a way of making the rope rigid. I can't recall who it was who told me; it's only a second-hand story.

DINGWALL: You'll find the reference in my paper. I didn't want to deal with the normal explanations as to how the trick is done because I knew it would involve us in a whole number of questions, some of which I was unable to answer because, unfortunately, magicians and conjurers are unable to give out the secrets of their trade. It's a sort of trade secret, but one of those is mentioned by Sir Alister and I've got the date in my paper where I mentioned it and the reference.

BRIER: Dr. Boshier.

BOSHIER: I think here we've got a problem of language again. We discussed this yesterday: how we would interpret this to our ability in our language. I'm sorry that the speaker has put an end to these flights because I thought they were still going on when I left Africa. I'll tell him whether or not he's done it, and I propose to show later a photograph of some type of African witch doctor.

LEWIS: I have a brief comment on Professor Dingwall's absolutely brilliant paper which was remarkably enjoyable, terribly perceptive and which conveyed a fantastic range of data even in the compressed form in which he was compelled to deliver it to us. I agree with Dr. Servadio that I think this paper raises in a beautifully elegant fashion the basic problem which underlies almost every discussion that we've had, and I would like to rephrase Professor Servadio's remarks rather brusquely, in a sense, and this relates also, perhaps, to Dr. Kreidler, and say, Is parapsychology a religion or is it a science?

DINGWALL: I think I would almost say it isn't either at the moment. It certainly isn't a science, but I would hardly call it a religion. It has religious implications, of course, and scientific implications, but in its present amorphous state, it isn't anything.

SMITH: I wonder if the flights may not take other forms and that out-of-the-body experiences are one extraordinary way in which our flights can take place without the use of a rope. Monroe's accounts of his out-of-the-body experiences, I think, are extraordinary. I asked him recently what he was doing and he said, "Well, I'm having a difficult time because I'm not only going out into far-out places, but I have to enlarge myself." And he said, "It's strange to be so immense that you can cup our galaxy in your hand." And he added, "You can't hold it because if you move your hand, the galaxy goes on through and it's very frightening because you know that somewhere down in that galaxy there is a tiny speck—earth—to which you have to get back." I believe his account of his experience. What I find

extremely interesting is to try to guess at the nature of the reality of this experience.

DINGWALL: I think Professor Smith is quite right. In fact at the beginning I almost thought of reading a paper on out-of-the-body experiences which, of course, are now extremely popular, since they have been popularized by Crookall and other persons, but I thought a criticism of them would probably involve so much acrimonious controversy that I dropped it.

BRIER: Grey Walter.

WALTER: There is one legendary flight which Dr. Dingwall has not referred to: Daedalus and Icarus from Crete. Now this is very well authenticated in the classic literature. We have to remember that the whole of Attica was inhabited by spirits, not just the many gods of theology, but by many spirits. And Daedalus had done great things, but he had to get away, and he did. And the legend is that he flew away to Crete somehow, and this is a legend which is very well documented in the classical literature. Of course, in a sense, we know that he didn't, but that is the legend and I think part of the legend of the feeling in Attica at the time and in Crete: that the whole world was full of spirits, not only the dead, but good and bad spirits and you had to placate them in various ways, sacrifice to them, and having achieved great things Daedalus and his son had to get away somehow, and they got away.

BRIER: Thank you again, Dr. Dingwall. The next speaker is Dr. Herbert Weiner. Dr. Weiner is a rabbi who has a congregation in New Jersey and has written on parapsychological themes. One of his books, on the Kabbalas, I can recommend and it's really interesting: *Nine and a Half Mystics*. I assume he will be talking today on something related. The title of his paper is "Folk Use of the Dream in Religious Societies."

WEINER: I really would like to just continue right along from where we stopped, but I'll try to fit the thread which was just left into a later part of my paper, because I think there is a great difference between the dream which has flight in it, and the dream which has in it a ladder which involves an ascent and descent or a bridge or a constant connection between heaven and earth.

FOLK USE OF THE DREAM IN RELIGIOUS SOCIETIES

HERBERT WEINER

About one-third of our life is occupied with sleep, and a great deal of sleep is occupied with dreams, and man has always been occupied with the meaning of these dreams. The earliest records of civilization such as the Babylonian *Epic of Gilgamesh* and the Egyptian *Book of Dreams* already assume the existence of an elaborate system of dream interpretation. The Greco-Roman age scarcely questioned the premonitory and prophetic power of dreams—leading philosophers like Plato, Aristotle and Democritus advancing various theories for this power. Our age, with its psychoanalytic schools and electronically wired dream laboratories, has added another link to this ancient chain of interest. But, whether this new link has expanded or limited our understanding of the power and use of dreams is a question that ought not to be answered lightly. Certainly, Freud, Adler, Jung and others have obviously added new systems of interpretations and new theories about the role dreams play in life. Obviously, also, the modern dream laboratory, with its electroencephalograph recording alpha, delta and theta waves, its measurements of rapid eye movements and other physical phenomena, has revealed new facts and opened doors for intriguing speculation. On the other hand, our scientific age may, through its theories and technologies, have closed certain doors of perception, doors which were opened in antiquity and are still at least partly open to so-called less sophisticated folk cultures of our day. Among the beliefs common to the latter groups is the assumption that dreams are capable of yielding information not accessible to ordinary sense perception. Cicero, logical and practical statesman, did not find it difficult to write a book about the use of dreams for divination. The anthropologist Kilton Stewart, with his research on the use of dreams among certain tribes in the South Pacific, has shown that so-called primitive peoples may have a thing or two to tell modern psychologists about the use and power of dreams. All of this I offer as an introduction to some facts and reflections on the role which dreams play in a culture which has its roots in antiquity but is still vital today—

particularly that aspect of the role which involves communication and insight not available through ordinary sense perception. The culture upon which my paper focuses is the Hebrew tradition both as it was expressed in the past and as it still exists in a number of faith-oriented folk cultures. These folk cultures differ immensely, one from the other. "What is it," asks a Yugoslavian Jew in Israel, "that connects me with Jews from Morocco or Yemen or Kurdistan? We don't look the same; we eat different foods, laugh at different jokes, don't understand each other's parental language, songs or customs." An answer to this question, even if available, is not within the purview of this paper. This much, though, is sure: Every variety of Jewish culture has its basic roots in the Bible. Hence, though I want to concentrate on times closer to our own, some general observations about dreams in the Bible are necessary. How large a part dreams play in the Bible can be suggested by drawing attention to only a few sentences in the first book of the Bible.

Gen. 20:3. "The Lord appeared to Abimelech in a night dream and said: Behold you are about to die because of this woman [Abraham's wife, Sarah] whom you took. . . ."

Gen. 25:11. "And he [Jacob] dreamed and there was a ladder set upon the earth and its top reached into the heavens and angels of the Lord ascended and descended. . . ."

Gen. 37:15. "And Joseph dreamed a dream and told his brothers and they hated him even more. . . ."

The Book of Genesis later relates the skill of Joseph as an interpreter of dreams—a skill which affects both his own career and the history of his people. All this and more comes just from the first book of the Bible. A full recital of dreams in the Bible, including the Prophets and the Book of Daniel,* would show us that the Bible not only accepts the dream as an instrument of extraordinary communication and insight, but also recognizes something known to modern dream laboratories. That is, it knows that there are various levels of dream and trance states.

* Dr. David Flusser, of Hebrew University in Jerusalem, has pointed out that the Book of Daniel goes beyond belief in dream interpretation to affirmation of clairvoyance as a definite power possessed by some. Thus, the King tests the Chaldeans by asking them not only to interpret his dream but also to relate its context. They protest that this is impossible, but Daniel does succeed in satisfying the King. This episode has its parallel in the test applied by Croesus, King of Lydia, to the Delphi oracle.

The "dream laboratory" has taught us that the dream cycle during sleep reveals several clearly distinguishable phases. There is an initial or "descending" state of sleep, intermediate stages and an "ascending" pattern. All of these are characterized by their own patterns of brain waves, REM movements, etc. The character of the dream is also different in each stage. The "descending" stage is usually accompanied by images which follow no easily recognized logical pattern and the symbols seem to have little direct connection with immediately preceding thoughts. Intermediate stages take on more logical patterns. The ascending stage coincides with the dreamer's deepest physical sleep. The dream recollection of this latter stage preceding normal awakening is usually the most vivid. Without attempting to correlate all this too closely, it is still interesting to observe that the Bible was also sharply aware of different levels of dream play during sleep. It distinguishes between a "dream of the night" and a trance such as that which characterized some of Balaam's prophecies. (Balaam, incidentally, is described as the one who sees his vision with "open eyes," i.e., set in a trance-like gaze.)

Prophetic visions usually are placed in an entirely different category, and the vision of Moses compared to those of other prophets is likened to the difference between "one who sees in a clear mirror and one who sees in an unclear mirror."

Since there were schools of prophets, it would not be too much to assume that some teachings of these schools had to do with techniques for entering into one or another dream level. Elijah, we know, places his head between his knees when preparing himself for a divine communication. There comes to mind, also, the voice heard by the child Samuel when sleeping in the Temple—a dreamlike auditory experience which may have been a standard way of confirming one's readiness for the prophetic experience.

I will return to the threads of these observations later. Right now, it is enough to reaffirm that the Bible harbors no doubts about the power of the dream to offer truth and information which is not bounded by the space, time and logic categories of our normal waking states. This unambivalent attitude is not shared by later Rabbinic levels of Hebrew culture.

After the Bible, the literature which most profoundly influenced and still influences Jewish folk culture in our day, is the Talmud. This is an immense collection of law, legend and custom, so vast that it has been described within its own text as an "ocean." Its vastness also includes completely contradictory opinions about dreams. There are rabbis who claim that the message of a dream neither "raises nor pulls down"—a phrase that has been interpreted to mean that one should not pay it serious attention. Yet the story to which this phrase is linked relates that a man's father died without revealing the hiding place of some money. The man asks his father in a

dream to tell him where the money is and he is told correctly. Another Rabbinic opinion in the Talmud has it that "nothing is shown to a man through a dream except what he has in his heart." Yet others flatly observe that a dream is "a sixtieth part of prophecy." Along the middle of the road would be the statement of Rabbi Yochanan in the name of Shimon bar Yochai, "As there can be no grain without straw, so can there be no dream without meaningless matter."

With all this difference of opinion, the great majority of sages from Talmudic days until recent times would agree that a dream is "like an unopened letter." And most were eager to open the letter. At one time, Jerusalem had twenty-four specially recognized dream interpreters, each with his own school of interpretation. The leading rabbis are reported as frequenting dream specialists, for which there was a professional charge. A long section of the Talmud relates how one of these specialists could make his interpretation more or less favorable according to the sum of money he received. This report is not as cynical as it appears. The point—a very important point—is that Jews believed and, if they are rooted in their tradition, still believe that "dreams go after the mouth". There is some room for interpreting this phrase in various ways, but the common understanding, important for our questions, is that the fulfillment of a dream depends in part at least on the interpretation. And I would like at this point to bring to your attention some material gathered in the course of my own research over the past months.

With the help and encouragement of the Parapsychology Foundation, I have been able to devote some time to probing possible correlations between parapsychological phenomena and the experiences of the Hebrew tradition as it is mirrored in the literature and life of communities which are still strongly tied to this tradition. The country of Israel is a natural laboratory for this kind of research and in Israel I have had the help of the Contemporary Institute for Folk Culture of the Hebrew University and its Co-Director, Dr. Ben-Ami. The dream and its use has been one of the subjects covered in this research. Now if there is one statement that characterizes the Jewish folk attitude toward the dream, it is the previously mentioned point about the importance of the interpreter. This is important, I repeat, not only in that dream interpretation requires skill, but also good feeling, even love, on the part of the interpreter. For the meaning of the dream and its power to affect the future depend in great part on the interpretation.

On one occasion I persuaded a young lady in Jerusalem whose husband compiled books of dreams to introduce me to her mother, who regularly brought her dreams to a sage. The mother had been born in Iraq to a family

which boasted several rabbis. Some of them acted as dream interpreters, but it was important, the mother stressed, "to consult only with people who love you." She had several episodes of precognitive dreams to relate. Her daughter confirmed one such tale. The mother had dreamt that her grandchild was run over by a car. Troubled, she had gone to a local sage who had used a traditional formula written in the prayer book for annulling troublesome dreams and she had given him a sum of money for "redemption of a soul." The next day the child had indeed very narrowly escaped being crushed under the wheels of a truck.

I made a date to visit the sage with the mother the next day and when morning came had my own dreams prepared. The dream interpreter was a man in his fifties, the son of a well-known rabbi who had died some years ago. He himself was not a rabbi, but people came to him with their dreams. "When a person sleeps," he explained simply, "his soul leaves him and rises to the upper worlds. There it can see what is about to happen. It is as if some events occur in the world and we who live in another part of the world don't hear of it till days later, but those who have radio or television can hear of it sooner. Now if a man is fortunate, an angel is sent to tell him through the dream what is decreed. If it is an evil decree, the man may then through prayer and good deeds change the decree."

I cannot say that I found the interpretations of my own dreams at the hands of this man particularly cogent, but I did buy his father's book. In this book, the father related his experiences not only in successfully interpreting precognitive dreams but also in driving out "Dybbuks" from the bodies of men and women. A Dybbuk is the psychic entity of a dead person who enters into a living being, resulting very often in what modern psychologists might call a schizophrenic or split personality. As to dreams, the rabbi offered several categories for distinguishing between those which are authentically precognitive and come "from a good angel," and those which are deceitful—from "an evil angel."

"For this is the characteristic of a true dream that comes from an angel: that his spirit is not disturbed during sleep as he sees the dream but only later when he awakes." Also, the true dream is orderly and not overly complicated with variegated material; and the person sees himself in it as he is in real life. We might note again that modern experimentation has been able to pinpoint stages of the dream cycle which conform to these criteria.

Generally speaking, today active dream interpretation is carried on mainly among the eastern Jewish communities, coming from North Africa, Iraq, Iran or Yemen. Communities stemming from eastern and western Europe are more inclined to follow the directions of the prayerbook which

are very explicit about what is to be said and done when there has been a disturbing dream, though the help of others to say "you have dreamt a good dream" is also recommended. The Eastern or Oriental communities also place greater stress on "dream books" which have compiled, either in alphabetical order or by subject matter, suggested interpretations. Much of the material in these books goes back to the Talmud. Among the most famous of these books is the *Interpretation of Dreams* by a fifteenth-century philosopher, grammarian, physician and Kabbalist, Shlomo Almoli.

Almoli begins with a quote from the *Zohar*, chief book of the Hebrew mystics: "Nothing happens in this world except that it is first announced in a dream or by a heavenly voice." Some of Almoli's interpretations of dream symbols vary with those offered in other Hebrew dream books. Allowance is also made for the individual circumstances and idiosyncracies of the dreamer. Nevertheless, a comparison between these symbolic systems and those found in other cultures would be most interesting. I myself, for example, am quite intrigued by some parallels between the Jewish approach to dreams and that which is found in a Malaysian tribe called the Senoi, as described by the anthropologist-psychologist Kilton Stewart. Thus, in the latter system, a dream of incestuous cohabitation with mother and/or sister is given a very positive interpretation. Strangely, despite the stringent moral code of Judaism, it is given a similar interpretation by Almoli. The appearance of a dead parent in a dream also solicits similar reactions. If the dead person appears accusing or silent, the meaning is negative. If, however, the dead person offers a gift or advice, the omen is fortuitous. Most important of all is the stress which both place on the positive role that can be played by the interpreter. The Senoi go further than the Hebrew sages in making suggestions about future dream programs. For them, the dream world is a kind of interior psychic factory which produces concrete changes in the external world. They believe that one can learn how to dream in a productive fashion. From childhood on, the Senoi is taught to relate his dreams in the family circle and occasionally to specialists. The specialist urges him to bring back concrete and socially usable material—like a song or dance or technique for making a trap—from his dream experience.

The Hebrew tradition does not go as far as the Senoi in programming dreams. It does, however, watch dreams for indications of a person's readiness for a certain task. An example is recorded in the literature of the Lubavitcher Hassidim, a mystically oriented orthodox group whose center today is in Brooklyn. The previous leader of the sect relates that as a child, his teachers asked him about his dreams. One day he told them that he had dreamed about a gathering of certain famous sages and participated with

them in the discussion of some religious legal questions. To his questioners, this indicated that his interior and exterior life were now approaching that harmony which made him fit for "crowning" as a leader of the sect.

As to receiving concrete and usable information from dreams, we have descriptions of specific techniques for putting a "dream question." A famous compilation of legal *responsa* in such dream questions is ascribed to Jacob of Marvège (13th century) and it was cited as support for later decisions by important Jewish scholars. One of the most distinguished Jewish authorities in the sixteenth century, Safed Jacob Karo, has recorded almost nightly visitations by a "spirit of the Mishna" (a compilation of Jewish law). Another remarkable record of dream activity in that period and city is offered by Rabbi Chaim Vital in his *Book of Visions*. Judging from this book, the Kabbalistically oriented sixteenth century community of Safed spent a great deal of its time discussing the meaning of their own and others' dreams. Some are night dreams, some are dreams "while awake." These dreams offer a person information ranging from his future marriage prospects to an elaborate genealogical tree tracing his soul to previous incarnations. Rabbi Chaim Vital again and again claims precognitive powers for his dreams and the dreams of others. Obviously, the community of Safed offered an environment which encouraged and stimulated such dreams and this brings me to my concluding observations.

In our day, the most "sensible" view of dreams sees them as performing not completely understood but important functions in maintaining a person's physical and psychic homeostasis. They are accepted by layman and psychoanalyst alike as offering a deep-level picture of an individual's true feeling and state of mind. Dr. Jan Ehrenwald is not alone in pointing out that this may oversimplify the real situation. It may not take into account the "tendency of the patient in psychotherapy to confirm with his dreams and other productions his analyst's unconscious wishes and expectations regarding the validity of his theories." "Between patient and therapist," he says, "there is a circular pattern of feedback of emotionally charged needs, wishes and expectations of those persons involved." This can certainly result in "self-fulfillment or consciously anticipated, hoped-for, or even dreaded events with or without telepathy being involved in its realization." Dr. Ehrenwald offers some interesting further speculations on the connection between psi phenomena and dreams, offering illustrations from classical Greco-Roman, Aztec and Biblical sources.

We might continue along this line of thought and wonder whether these ancient civilizations and some modern "primitive" cultures may have evoked dream powers and opened "doors of perception" closed to most modern approaches. Clearly these societies already knew a great deal about

different levels of sleep and accompanying dream stages. They may not have been able to measure the concomitant brain waves and Rem movements but they may know more than we do about techniques for entering into one or more of these specific dream states. Above all, they offered the dreamer certain elements which may have acted as catalysts to bring about dream states that cannot be easily duplicated by the laboratory. For example, they had dream interpreters who did not pretend to be objective while actually being self-enclosed by theories that automatically eliminated the possibility of psi phenomena in dreams. Instead they had men who believed completely in the power of the dream to provide insights and information not available to minds bound by the space, time and logic categories of our scientific standards.

Is it not possible that "dreams go after the mouth" in the sense that they may reveal powers to one type of interpreter or cultural environment which are not available in another context? The dream laboratory can discover much, but it cannot readily provide interpreters who love the dreamer, much less an environment of faith in the psychic powers of the dream. Lacking these elements, we may lack the very keys which can open up visionary perceptions on the part of the dreamer that transcend ordinary means of perception.

"The day will come," asserts the prophet Joel, "when your old men shall dream dreams and your young men shall see visions." We must not let our secular scientific mentality reduce such a prediction into a vague poetic hope. It is written in the Bible, which firmly ascribes to dreams, extrasensory powers—of the kind exhibited by other prophets and even by ordinary men. Its vision is of a time when the so-called normative consciousness will have powers of perception now ascribed only to a few—a new level of the human mind and psyche.

But that is in the future. Meanwhile, we can greatly enrich our knowledge of psi phenomena by probing the consciousness and records of those who did claim and offer evidence for such phenomena. This includes peoples and individuals who, like the communities to whom I have referred in this paper, may be labelled as "primitive" by some technological standards but may be anything but primitive in terms of psychic ability.

DISCUSSION

WALTER: This was a fascinating survey of the Hebrew/Judaic tradition which I can't comment on, but there is one personal anecdote that I would like to tell. I remember some of my dreams. When I was a kid in Kansas,

Missouri, my father had gone to England to join up with Intelligence and I was left alone quite a lot. This raises the problem: the word "fear" had been mentioned. I think there are other emotional affective factors which influence dreams. We had to go out quite often to dine in Kansas City, because my mother was working, and mostly I was with grownups. Well, I had a very vivid dream. I was standing at the top of the staircase and all the grownups downstairs were laughing at me and they said, "Who are you?" and I said, "My name is Grey." And they said, "What's going to happen?" and I said, "When I wake up, you'll disappear." That's superiority. Now, that's one dream, and that was a long time ago, when I was a kid during the first world war. Now since that time and until quite recently, and I'll tell you why they stopped, I used to dream about flying. Usually at a party. I didn't have to flap my wings. I'd hold my hands a certain way and I would float up around the ceiling and the people at the party would say, "How do you do that?" and I would say, "I stood like that." And they would ask if they could do it, and I'd say, "Sure, if you do the right sort of thing," and some certainly would learn to fly. And again, I was above them, so to speak, I had this feeling of superiority. I wished to become prominent at these parties and I became prominent by flying around the ceiling. Well, a little later I learned to fly myself. I flew real airplanes and I flew gliders, etc. I obtained all the qualifications. Since then I have had no flying dreams at all. I think this is a wish to fly as Daedalus did, so to speak.

Well now, a friend of mine, a colleague, Chris Evans who was also mentioned here, has this hypothesis: that dreams are essentially what you might call diffuse language, debugging brain programs; that is, surveying what you wish to do, surely in fantasy (but sometimes it would be in realistic terms and I've seen this myself; I've done it myself)—debugging the brain program, correcting it, trying it out, seeing if it will work. If it doesn't work, then you realize when you wake up, "I wouldn't do that; this is the wrong thing." In fact, I once dreamed a very long time ago of invention, of a computer which was finally made and has proved very successful commercially and has made my Institute about \$20,000. That's all in the dream—about the way the computer was finally made and it was a very vivid dream, the thing wobbling around in certain frequencies. It wasn't a sex dream at all; it was a wish fulfillment. I wanted to make something to help people to analyze brain records and it worked like that. Now it's been sold all over the world. So it was wish fulfillment, and not fear. It was a wish, and I think this is an important factor: the wish for superiority and the wish for achievement.

BRIER: Thank you. First, Professor Kreitler.

KREITLER: I want to direct my remarks to Dr. Weiner and then to Dr. Van de Castle about the different levels of dreams. When I was still practicing orthodox psychoanalysis, I had the unique privilege of treating a young woman patient belonging to the most orthodox sect existing in Judaism, so orthodox that the members of the sect do not recognize the State of Israel because it was not created by the Messiah. In regard to sex I did not encounter any difficulty. But once I had to contact the rabbis since we reached the conclusion that this young lady, who was brain damaged too, should not become pregnant for a year or two. Now this is the most difficult thing to attain in this sect of Judaism in which the use of contraceptives is held to be a horrible sin. Three of their leading rabbis, so religious that they don't even use Hebrew for secular conversation, came to me and asked how I could prove (a) that pregnancy would be dangerous, and (b) that the use of contraceptives would not prevent her in the future from becoming pregnant and giving birth to a son. In my despair, I told them a dream this lady had in which she gave birth to a child under horrible states of anxiety. In the dream she even was slightly epileptic, besides her hysteria. And I said, "Look, this horrible anxiety—how can we go on with it? She is too afraid of pregnancy in her present state." They looked at me and said, "She can use contraceptives. You see, she will have a boy after the treatment. This is a prophetic dream." After the treatment, she had a boy and I was invited to attend the circumcision. This rabbi came over and said to me, "You see, instead of using your craft, psychoanalysis, go and treat patients in accordance to the prophetic content of their dreams," and I must say the examples they quoted were impressive. I mention this only because in a highly modernized country, it's difficult to imagine that a group of about 30,000 people lives, in fact in daily life, with prophetic dream interpretations.

HALIFAX-GROF: I have some very brief comments. In regard to your last comment about the dream which was fulfilled, I would also like to mention Kekule's benzene ring as a most salient example in this category of phenomena. My second point is in regard to material about the Senoi. I think a very important aspect of their dream activity is the attempt at consummation of the dream content. Another interesting aspect which relates to what you have been saying is the generating effect of positive sanction in regard to prophetic dreams on other tribal groups. That is to say, apparently the Senoi are keenly interested in whether or not the prophetic dream is fulfilled in reality; if this should be the case, the dreamer is strongly supported and encouraged. So much positive sanctioning gives rise, according to Stewart, to a higher frequency of prophetic dreams.

KOESTLER: You can imagine the dreaming situation as a kind of movie theater with one spectator and the engineer who operates the projector. Now look at the relationship between that one spectator and the cameraman. The spectator is surprised, frightened, pleased with what the cameraman produces, but the cameraman ultimately only produces what the spectator wants to be projected, so the two are linked by a very unique intimacy which occurs in no other field of life. This intimacy could be on two levels of consciousness. It's more complicated by the fact that you can be dreaming, knowing that you are dreaming, knowing that you can walk out of the situation, but nevertheless because of curiosity, you let it go on for a little while. The hangman waits at the condemned man's cell. The condemned man can get out but he just wants to see what's happening, so this intimacy of unconscious/conscious and of conscious interperception, creates a situation unique to ESP phenomena, if we are to believe that most telepathic dreams and perhaps clairvoyant dreams are created at extra-conscious levels.

DEVEREUX: As regards the multiplicity of levels of dream interpretation, Bertram Lewin has discussed that very carefully, very logically. As regards the interpretation of the manifest content of dreams, I think I was the first to use the interpreting of the *manifest* content of dreams as a psychotherapeutic technique. My relevant book, entitled *Reality and Dream*, was published in 1951, and reprinted in 1969. It gives full details on this technique.

AFRICAN APPRENTICESHIP

ADRIAN K. BOSHIER

Ten years ago while sitting in a trading store in the African bush, the discussion between the trader and myself swung inevitably to the customs and behavior of the African people. Mention was made of a strange woman who periodically visited his store. He took great pity on her, giving her, free of charge, the meal, sugar and flour which she would demand in a demented manner. Entering the store loudly, chanting and babbling incoherently, ordering this and that, she met opposition from no one. She was, he informed me, completely insane, as was proven by the fear and silence exhibited by the other customers in her presence.

I was intrigued by this description and pressed him for further details on her appearance. She wore her hair in long ringlets with a cowrie shell dangling over her forehead. Her clothing was richly beaded and skins hung from her shoulders and waist. Instead of the traditional copper bangles, she wore bracelets of skin on her wrists.

Eugene, the storekeeper, had described to me a female African witch doctor. He refused to accept this however, and kept insisting she was simply a mad old woman, obviously an outcast from her tribe, probably destitute. With great difficulty I persuaded my sceptical friend to supply me with a guide who knew the whereabouts of this "lunatic."

Upon arrival at a village some ten miles away, we were directed to one of the mud huts where we found the woman, Makosa, sitting on the floor amongst bones, dice and shells—her instruments of divination. Completely unperturbed by the arrival of our party, she did not even look up, but continued studying and re-throwing the bones. Eventually she spoke. "One of you is here to ask me questions, he has a head full of questions, he is not a man of this land, but comes from over the big water." Then, ignoring the others she looked directly at me and asked, "What do you want?" I chided her and in the traditional manner told her to inquire this of her spirits. Again she picked up her bones, blew on them, and cast them down. She repeated this process three times, studying carefully the pattern between

each throw. After some time she picked up a small knuckle bone and said that this bone represented me. I was the bone of the impala. The impala ram is an animal who lives with its herd most of the time, she told me, but periodically it leaves its group and goes off into the wilds by itself. It always returns to its herd, but again it must leave to wander alone. "This is you," she said. "You live with your people, but sometimes you must go into the bush alone. You walk by day and by night. You sleep under trees, like the impala ram. You go wherever you feel, wherever your spirits lead you. When you return to your people, they ask why you go off alone into the wilds. They think you are mad. But I know why you do this—I do it too. You go to learn, living in the wild places, the mountains, the desert. You will go on doing this throughout your life, living with your people, then leaving them to walk alone in the bush with your spirits. This is your life's work. What you learn is what the spirits are teaching you. This is the only way."

The old woman continued throwing the bones and revealing personal details concerning my life, which were absolutely accurate. As concerns my resemblance to the impala she described perfectly in the African idiom my apprenticeship to the wilderness of that country. Upon arrival in South Africa seven years earlier, I had set off to learn firsthand about the peoples, the nature and the past of the "Dark Continent." My destinations were those blank spaces on maps, where after initial hardships, I learned the art of living off the land. Such an existence taught me much about the country and its wildlife, but probing the customs, beliefs, etc. of the people proved to be a far more difficult and lengthy undertaking, for the historians and spiritual leaders of African society are the witch doctors—people like Makosa who tell only so much, whose revelations are very limited to the uninitiated.

Following my first encounter with Makosa I found myself in a neighboring tribe with people whom I already knew quite well, the Bakgatla, and it was at this time that I was requested to become a member of their tribe. Following the induction ceremony with the paramount chief and his councillors, thirty-five elderly witch doctors, an old man stood up. This was Moroki Ranyadi, the paramount chief's personal witch doctor, who boasted to the gathering that he knew more about his people, their history and culture, than anyone else in the tribe, and as these were the things I was interested in he could help me more than any other person. The others clapped their hands in acknowledgment. Then, taking a copper bangle from his arm he handed it to the chief, who gave it to me. I was told that it had been made by his grandfather, as was a second gift: a large iron hoe-head of native manufacture. His grandfather had been the last miner

and metal-worker of the Bakgatla people and from him Moroki knew the whereabouts of their own iron and copper workings; he also knew how to extract and smelt the ore.

He then asked the chief for permission to take me to these ancient mines. The chief immediately agreed, whereupon Moroki told me that he would now consult his own spirits and seek their consent. I waited in his village for a week while he communed with his spirits.

They apparently approved, for on the seventh day we left the village and drove some ninety-five miles westward to the border of what was then Bechuanaland. In a very remote range of mountains we spent the following week walking and examining ancient copper mines. One morning as we were approaching one of the old workings and were about to enter, a leopard bolted out of the tunnel and fled past us. We remarked upon our good fortune, for had we trapped the animal inside, it would have attacked us, putting a rapid end to our expedition.

The week we spent in those mountains was tremendously exciting, for I learned from him the entire process of Bantu mining, especially the rituals and observances aimed at appeasing the underworld spirits. It was evident that the earth spirits were very powerful, for they controlled the elements and were directly responsible for the prosperity of the land.

At the end of the week I returned Moroki to his village and headed for Johannesburg. En route I again visited the old witch doctor, Makosa. She was in her "hut of the spirits" throwing the bones. I entered and, as before, she continued casting. After a time she looked up and told me that something was wrong; her bones were not speaking properly. She was obviously concerned, as are all witch doctors, that someone had been influencing them. She went on and on throwing them, muttering and shaking her head. "No," she said. "Something is wrong. The spirits are not talking nicely." I inquired what it was the spirits were saying. "All I can see is the underworld, the underground," she told me. "This is the bone of the antbear, the anteater. I see you as the antbear who lives under the ground. It makes no sense to me."

Her concern was so great that I immediately put her at ease and told her that it could be correct as I had been underground. "Then the bones are right and the spirits are talking well. You were down under the ground, but you must be very careful when you go down there, as the gods of the underworld can be very dangerous. Also, I see you here in my bones next to the leopard. The leopard too was in that place, and he does not like people in his home. You must be very careful of this animal. I see you were right next to him."

The traditional form of religion amongst the Bantu of southern Africa is

ancestor worship; the welfare of the people depends directly on communication with their ancestors in the spirit world. The term witch doctor is used to denote the priest, prophet, physician, herbalist, psychiatrist, diviner and historian of the tribe. They are the intermediaries between the tribespeople and their ancestors; they play a vital role in the community. It is the witch doctor to whom everyone turns in time of trouble, whether it be physiological or psychological, crop failure, a lost cow, or a drought.

Probably the most common form of witch doctor in southern Africa is the sangoma. They may be either male or female; however, in my experience I have found the latter to be most common. The sangoma-to-be is assailed by an illness which is diagnosed by an older doctor as the Moya, or spirit which has possessed the body of that person. This indication demands that the individual be initiated and trained as a doctor. The form of illness which overcomes the person does not differ greatly from that which accompanies the calling of future shamans of Asiatic, Australian and American communities.

The initiated sangoma works with his or her spirit for the benefit of the people. They divine and cure illnesses, officiate at all religious ceremonies, and maintain constant contact with the spirit world. All the Bantu peoples of South Africa believe in a supreme being, but do not believe that mortal beings possess the power or the right to appeal directly to the Almighty. The intermediary between God and the sangomas are the spirits or ancestors. A particularly powerful sangoma will be one who in prayer is able to address by name many members of his ancestral line. These supplications may be channeled through either the male or female side of the family.

To maintain contact with the spirit world and indeed to commune at all with the ancestors, one must tend conscientiously to their welfare, offering food, tobacco, snuff, in fact almost any commodity. The most vital of these offerings is blood, and though animal sacrifice is the usual form, its universal substitute, red ochre, may be used as it is considered to be blood of the earth, or of the mother goddess.

In studying the blood rituals of the people of the subcontinent, I have been deeply impressed with the great antiquity of their religious ceremonies, for quite fortuitously my archaeological work has had direct bearing upon the ancient beliefs of life after death, of ancestor worship and of rituals employing blood as the principal source of spirit communion. We are dealing here with the basic principles of all religions and, I believe, of what is today termed parapsychology, or paranormal phenomena. Therefore, I propose to outline briefly the archaeological work we have been undertaking in South Africa for the past ten years.

In 1964, while working in the rugged mountains of Swaziland, I discov-

ered what transpired to be the oldest known mines in the world. The substance being mined there more than 40,000 years ago was haematite, which produced red ochre for the earliest-known homo sapiens. (Exactly as those same haematites are ground up and used by Africans today.)

In our work on red ochre, we have proposed that those middle Stone Age men indulged in the earliest form of religious ritual. This was the burial of their dead, liberally coated with powdered haematite or bloodstone. My supervisor in this work, Professor Raymond Dart, has repeatedly drawn attention to the uses of these red pigments as a substitute for blood by peoples throughout the world from earliest historic periods up to the Middle Ages. To primitive man the association of blood with life was elementary, for from mortal wounds flowed blood, the most tangible manifestation of death. Conversely the first indication of pregnancy is the cessation of the menstrual flow, for the blood is now involved in the forming of a new life. Blood to early man was inextricably bound with his philosophies of life, and as such has featured in all primitive ceremonies aimed at increasing or actually renewing life.

The inclusion in prehistoric burials of quantities of red ochre was apparently aimed at regenerating life in the afterworld; it was probably but the first of many ceremonies at which blood or its substitute, red ochre, was employed in an effort to renew life and thereby communicate with the departed. This was certainly the aim of sacrifices in ancient Greek times when Homer's *Odyssey* reveals "that the spirits of the dead could be summoned up: they gathered around in droves when an animal's throat was cut so as to drink its blood and become alive for a time, however brief."

The ancient beliefs concerning blood and life are of course by no means confined to this continent nor the African peoples alone; synonymous ceremonies are conducted everywhere up to the present day, one being the observance of Eucharist, where red wine is taken to represent the blood of the Son of God.

My first encounter of ochre being used as a direct substitute for blood occurred in 1965 in a remote region of the Transvaal. I had been living in a range of mountains for almost seven years, conducting a survey of prehistoric rock art and investigating the people of the area.

A serious six-year drought had caused the tribesmen to revert to hunting; things had now become so crucial that every effort was being made to discover the cause of the drought. In their endeavor I was consulted and so followed lengthy discussion with the chief and his councillors. At this stage I inquired why, in my search for painted sites, I had discovered the tribal drums hidden away in a cave. Some consternation followed this announcement, as the cavern in question had apparently been treated with

magic: a spell had been put on it that prevented anyone from discovering or entering it.

I was then told that the sacred drums had been hidden away following threats made by European missionaries at the end of the last century. The tribal elders informed me that they would dearly love to take out the drums again if I could assure them that the white man's god would not take revenge. In addition they required blood if they were to relive the ancient ceremony. I begged them not to consider human sacrifice as this would surely cause great trouble. My fears were immediately allayed, however, when an old witch doctor explained that his people had long ago stopped ritual murders; what they needed was another blood, the blood of the Mother Earth. When I offered to obtain some haematite for them they politely explained that they must first see the material as only the ochre used by their forefathers was suitable.

There was nowhere to go but the ancient mines of Swaziland and within a month I returned with a load of haematite. This was eagerly accepted and preparations were made for one of their most important ceremonies. Having since been initiated into the school of those very same drums, I am not at liberty to describe the ritual in detail. Broadly, it entails the sacrifice of an ox with whose fat the ground ochre is mixed. This "blood" is then smeared on the drums and at a ceremony lasting from sunset to sunrise these instruments are beaten nonstop. This I was told would definitely please the spirits, for they never refused such an offering of blood. Happily I must add that the 1965-1966 rainy season in the northern Transvaal was one of the finest in decades.

While preparing this paper I thought it might be of interest to the conference if the participants heard the predictions concerning my attendance here, so I paid a visit to one of the sangomas with whom we are working in Johannesburg and asked her to throw the bones for me, as I was about to take a long journey.

She cast her bones onto the floor, studied them carefully, and then spoke: "You will go across the big water soon, to another country a long way away. There you will sit with many people who will want to know everything about your work. They will ask you about the sangomas in Africa and you must tell them just how it is. You must tell them this: that no one becomes sangoma without first getting sick. Everyone who is called by the spirits gets the sickness, a bad sickness. No one can become a sangoma who does not get this. You must tell these people what happens to us, all the sangomas when that spirit calls them. Ohh! How hard it is and how hard we must work with those spirits. They will ask you all the questions and you will tell them fine."

Dorcas, the woman reading the bones, is a middle-aged Zulu, the daughter of a Methodist minister who received her calling in the classical manner. Here, transcribed directly from a tape recording, is her description of a sangoma, and a little of her own story.

"The sangoma is a person with a strong spirit. All people have a spirit, black people, white people, Chinese people, but God chooses some to talk through. It is like he gives some people a gift. All have spirit, but for some it is a gift, and those people become sangomas. Like Jesus, do you know Jesus? God gave him a big, big gift, a large spirit. Many of the people didn't understand this about him. But he had that spirit. He walked alone in the mountains, didn't he? He talked with his spirits, didn't he? He made sick people better, didn't he? It is just like that. But you must go out; you must go into the mountains, you know. How can you know anything if you don't go out? How can people learn about the spirits of the mountains and the rivers if they just go to university? No, to learn about the spirits you must go out alone into the wild places.

"When my spirit came I was sick—oh I was so sick. I lay in bed for three years—I could not eat or drink or even walk. I just lay there day after day and at night dreams would come! At night I would leave my body and my spirit would go far far away to other places that my body never sees. My spirit would see so many things in the night. And then in the morning, before the sun comes up, my spirit would return to my body, and I would lay in bed another day.

"I went to many white doctors and black medical doctors. I was a Christian—my father was a Methodist minister, and I wanted the medical doctors to make me better. None of them could find what was wrong with me, none of them could cure me. Finally, at Baragwanath Hospital a Dr. Steyn told me, "You must go to your own doctors. They can help you and we cannot." He knew. But still I would not go.

"One night, in a dream my grandfather came to me and told me, 'You are not sick. You are going to help your people. I like you very much, and my spirit will enter your body, and you will do my work.' But I still wanted nothing to do with it. I was a Christian and I wanted nothing of that sangoma business.

"The sangomas would visit me and tell me that I had the spirit. But I told my mother to send them away. I did not want to hear them! At night the sangomas would come in my dreams and shout at me that I must become sangoma. I did not want to hear it. I asked my mother to move my bed into the other room, because the spirits would not leave me alone in my own room. But they even found me there in the lounge. My mother got so tired taking care of me she finally told me, 'Oh Dorcas, I wish God would take

you now.' But he did not take me and those spirits did not leave me alone. They came so strong it was like at the cinema, the pictures came before my eyes just like they were real. My eyes saw everything, but my body could not move. They came all the time to me, shouting and showing me things like beads, skins and herbs. But still I would not give in.

'I am a Christian, not a sangoma! You must go away.' But they would not go away.

"One night they came in my dreams, while I was sleeping in the lounge. There were many of them and they sat at the foot of my bed on that long bench there. They were just like real people. Big big sangomas they were. They sat there and they ordered me to sing. They clapped their hands and they sang a song which I can still remember. They said, 'Sing!' There was one very big fat sangoma. She told me, 'Get up! Get up and sing! You are sangoma, you are not sick! Wake up—you must wake up and teach!' Then they just disappeared.

"One night in a dream they showed me a headdress I must make out of beads and wool. I did make that headdress, with the long wool strands like sangoma hair, and beads on all the strands. I did not wear it, but I did make it. Finally one night my grandfather came to me in a dream and told me, 'You must wear it. If you do not wear it I will kill you!'

"At this point I went to the Apostolic Church who said they would cure me. They carried me to a river, and put me in that water right up to my neck. But then, when I was in that river I suddenly felt something under my feet. It lifted me right up. I was terrified! I leapt out of that river and saw that it was a big snake—it was my grandfather! At that point the Apostolic Church gave up. They said, 'Your grandfather wants you to become sangoma, and we can do nothing. You must give in.' At home that night I talked with my father and he said to me that even though he was a Methodist minister he knew that my spirit was that of a sangoma.

"The next day my mother took me to my auntie's house, my auntie who is sangoma. At her house all the sangomas came to see me. They beat the drum and said, 'Get up and dance!' I did get up. I did dance and I did sing. Hours and hours it was like to me, singing and dancing. For three years I had not been able to walk. Now, this day, I was dancing! The sangomas all laughed and laughed at me, and I could not stop dancing. Finally I fell back to bed, exhausted. My training had begun. That was in 1962. Ohh! What a time that was, when I started to dance and gave in to the spirits."

Sangoma training involves the learning of songs, special dances, drumming, the ingestion of emetics for purification, and the continual instruction of the Baba as she watches her twasa carefully, noting her particular spirit manifestation. They are encouraged daily to strengthen and use the

spirit that is possessing them. They are called anytime, day or night, to find things that the Baba has "hidden" somewhere in the village. At first the teacher will tell the twasa that something is hidden for her, but as the training progresses the Baba will no longer inform the initiate verbally, but will call her employing telepathic methods. Mild drugs may be used when signs of the spirit slack off, or in clarifying the meaning of dreams and hallucinatory experiences.

The possessing spirit may be male or female, usually a relative, but occasionally not, sometimes even an in-law of the sangoma. It is quite obvious to the observer which sex is possessing the sangoma in trance as a woman may suddenly speak in a deep male voice, her features changing, her gestures becoming decidedly masculine. Very commonly the spirit coming through will speak in a completely different language.

As the training continues, more spirits may come through to the initiate. None of the sangomas we work with have had less than six months' initial training. Some have trained up to two or three years. The end of the instruction period is usually decided by the spirits of the initiate, but no twasa may leave without her teacher's permission.

The coming-out ceremony of the newly qualified sangoma again centers around the sacrifice of an animal. The animal is hidden sometimes far from the village and the apprentice must discover its exact whereabouts. Back in the village, the animal is slaughtered, the bladder taken, its contents drunk by the twasa and the inflated bladder tied into her hair. Again strips of the hide are cut, tied about her wrists, shoulders and waist, the blood is drunk and the meat consumed by the trainee and the attending sangomas. The ritual heralds the end of training and the qualified sangoma is now ready to begin her own practice.

Her dreams, fits and seizures are now all utilized in her work, in divination, in guiding her as to which herbs to use for her patients and treatments necessary in each case. She may suddenly leave her home, as willed by the spirits, to visit various parts of the country. She may go as far as one of the oceans in search of knowledge, experience and wisdom. It is not unlikely that she will again become sick after some time of practice. Spirits may enter her body which she can no longer handle—her dreams may become completely out of hand once more and she may revert to a similar state as in her pre-twasa days. This is the signal for further training. Again she will be led by her dreams and visions to another teacher, to a more highly qualified teacher. It is here that she will then commence what is called "the second pot," the second stage of training.

There are twelve stages of training in all—twelve "pots"—twelve types of spirits. The first is simply umlozi, the last or highest being balozi. Not all

sangomas reach this level, but those that do are considered the most powerful.

The spirit with which they now work may come to the young sangoma at any time, often completely unbidden. The most important thing, however, is their ability to summon up the spirit, thereby utilizing it for their people and their society. The mode of divination is so vastly different from the European mode of diagnosis that one wonders how they ever adjust to the European doctors. An African suffering from any misfortune: physiological, psychical or otherwise, will go to the home of a sangoma and simply demand that the sangoma tell him what he has come for. "I want to know" (*sia cou lega*), will be his only statement. With no further prompting whatsoever the sangoma must tell the patient exactly why he has come, and how to cure or remedy his troubles.

The study we are undertaking with assistance from the Parapsychology Foundation has centered mostly around the life of a young Swazi sangoma, Ndlaleni Cindi. She is an excellent diviner and one whom we have frequently observed diagnosing and treating patients. Here is her own account of the procedure:

"A patient comes into my house and says 'Sia cou lega'—I want to know. I leave him and go into my room, put on my clothes, pick up my switch and begin to sing. I ask my ancestors to tell me what is wrong with this person. I sing and sing, walking around until I feel the spirit coming. When it comes it feels like a heavy weight on the back of my head and my shoulders. Very heavy on me. Then I must go to that patient and start to talk. I must talk until the spirit goes. I cannot stop until it is finished. Sometimes I don't even know what I was saying and the patient must tell me. Sometimes I can hear my words, but don't understand them. When I come back afterwards I feel like I have been dreaming.

Sometimes it comes quickly, sometimes you have to work very hard to make it come, singing and singing and asking your ancestors. But they always tell you right. When the patient leaves I must thank my ancestors right away."

Ndlaleni first came to the Museum some sixteen months ago in the company of another witch doctor, and immediately agreed to my testing her spirit. Leaving her in my office with the other witch doctor and Miss Costello, I went to a neighboring building and took out the skin of a gemsbok. This I hid beneath a canvas sail on the back of my land rover. I then called her outside and told her I had hidden something which she must find. With the aid of the other witch doctor, she knelt down and began to sing softly. Then in trance state, she informed me that I had hidden something across on the other side of the building, over there. She

told me that it had more than one color, that it came from an animal, that it was raised up off the ground. Suddenly she got up, ran around the building, out into the front where the land rover stood and knelt down beside the land rover. Again she began singing softly and within five minutes of this she tore off one of her necklaces and holding it in front of her like a divining rod, she walked around the land rover, climbed onto the back and took out the skin.

The sangomas are confident of their position in society and do not regard the Church or Western medicine as a great threat. This even applies to urbanized African society, where witch doctors flourish and count among their patients individuals of great wealth and social standing—even those trained in traditional medicine. The inability of Europeans to handle psychiatric cases strengthens this confidence.

Although great opposition is offered by educated Africans afflicted with the Moya, we have recorded in our present study school teachers, policemen and nursing staff who have been taken by the spirit and trained as witch doctors. At the moment we are working with a female sangoma who qualified as a staff nurse some years ago, and was later compelled to train and become a sangoma.

Only a short while ago during one of my initiation ceremonies, I asked the old woman who was presiding whether she had any regrets, fears, or doubts that she was initiating me into a tribally orientated ceremony, as I was not only European, but acutally came from England. I had not been born here, and none of my ancestors had been in South Africa. She replied that it made no difference whatsoever, she had seen my ancestors in her dreams, and my ancestors and her ancestors spoke to one another—all spirits were the same, when we die we all go to the same place. She said today you and I are different, we live differently, our culture is different, but long long ago we all came from a common source and when we die we go back to the old people—back to the old days, to our ancestors, and on that side there is no difference, we are all the same. She went on, "I can only accept you as a witch doctor because my ancestors and your ancestors have agreed that this should be so, and that is why I invited you here."

At this same ceremony I was required to drink the blood of a sacrificed goat. My Baba informed me that we had to call up the spirits and only this blood-taking ritual could ensure such communication. And so I found myself enacting a custom which in numerous writings I have claimed to be one of man's earliest religious rites.

BIBLIOGRAPHY

- BOSHIER, A. K., "What Makes a Witchdoctor?" *Scientific South Africa*, 2 (1965): 317-320.
- , "Mining Genesis," *Mining Survey* (April, 1964), pp. 21-28.
- BOSHIER, A. K. and P. B. BEAUMONT, "Nuclear Antiquity 2: Beyond the Mists of Mining," *Nuclear Active: South African Atomic Energy Board* (1970), pp. 21-26.
- , "Mining in Southern Africa and the Emergence of Modern Man," *Optima* (March, 1972), pp. 2-120.
- CURTIN, J., *A Journey in Southern Siberia* (Boston: Little Brown and Company, 1909).
- DART, R. A., "The Birth of Symbology," *African Studies*, 27 (1) (1968): 15-27.
- DE LAGUNA, F., *Under Mount Saint Elias: The History and Culture of the Yakutat Tlingit* (Part 2) (Washington, D.C.: Smithsonian Institution Press, 1972).

DISCUSSION

BRIER: Dr. Dingwall.

DINGWALL: I found Mr. Boshier's paper absolutely fascinating, and what I really want is information. In my own work with curious people which has been carried on in Haiti where I've been three times mainly to investigate black magic, sexuality and transvestism, I have come to the conclusion that in dealing with primitive people, one has to have something which I can't describe. Of course, you may not think so, but I am fundamentally a very simple and earthy person, and I find that in dealing with people of this sort, one can get into their minds and into their lives in a way which so-called learned people don't succeed in doing at all. And I want to ask him whether he doesn't think that in dealing with the people in Africa, whether their acceptance of him wasn't to a certain extent due to the fact that they recognized in him qualities which were primitive, in the sense that he was one with them. That's what I found in Haiti and I find it very surprising because people think I'm a very sophisticated person, which isn't so at all. I get on extraordinarily well with primitive people of that kind. In fact, when I spent a morning in the great mental asylum with Dr. Price Mars in Haiti, he showed me a very curious case indeed. I began talking to this man, and Dr. Mars said, "Well, what on earth are you doing? Do you know this man won't talk to anybody, not even to us. Why does he talk to you?" I felt a kind of affinity between myself and people of this sort. Do you agree that in this kind of field work that in order to get the kind of results that you get, you have to have, in a sense, a kind of mental affinity with them, and it's really a primitive mentality?

BOSHIER: Yes.

DINGWALL: Thank you. I wanted your opinion very much.

BRIER: Next there will be Sussman and then Skinner.

ROBERT SUSSMAN: I just wondered, since this is so interesting and we're so interested in it, if we could go on, that is, if Mr. Boshier would go on with some of the details of his work.

BRIER: I think most people would probably agree with that.

BOSHIER: Well, I can discuss some cases. I went to witch doctors because in my wanderings through Africa when I got there, I found that these were the spiritual leaders. They were the historians of the tribe there, as I mentioned before, the most intelligent people in the community. And invariably in my visits to them, they would divine for me. Now I have witnessed numerous examples of these. Whether or not they used these divining bones, whereby absolutely this bone falling in this particular position means this or not, is very difficult to say. As I mentioned after the Sussmans' paper, it didn't seem to matter. I recorded the various ways in which bones could fall, we'd then find them fall in that way and read quite differently, and I began to think that it had nothing to do with the bones at all. In the case of other witch doctors I have sat with, we have discussed at great length the meaning of the bones and they have admitted that although their bones are often handed down father to son, they can, in fact, divine with a handful of pebbles—virtually any objects. These are told them in their dream or trance state and they'll pick up anything and divine with it, and all that is is an instrument to focus upon and from there, off they go.

Another case I had was after living with the Kalahari bushmen for awhile, I decided to test my bush survival ability and by taking just a knife and a bag of salt and nothing else, I decided to walk along a particular river which was very fascinating to me because of the tribes that lived along it and because of the wildlife that lived there. The first village I walked to was a witch doctor's village, and I stopped and sat there, had a meal, and he produced these bones and threw them. He then foresaw that I was on a very long walk, a walk that would take me eventually right to Johannesburg which he had heard about but never visited. He said, "You will be walking with the spirits because the land you're going through is very bad country and you'll meet many lions and many elephants, and one elephant and one lion are going to give you a considerable amount of trouble." He went on to say, "You'll come out of it all right, but be very careful."

This was something like a six-hundred-mile walk and it took some months; I did it very slowly and of course, I passed in that country a great

number of elephants and lions all over the place and one night I had a remarkable experience with an elephant, as he predicted. None of the others gave any trouble. And exactly two nights later, I had a very close shave with a lioness, and this is the sort of thing which I have experienced. I do believe that they certainly can tell a great deal with their bones. And when one asks, "How do you do it? Just what do you do?", they explain it is their spirits who possess them and tell them these things, and for this reason a great part of the witch doctor's life is spent in appeasing offended spirits. A great ceremony, of course, is conducted at burials, etc., because the dead are going to come back (this is their ancestor worship), and the dead demand a vehicle through which to speak. Therefore certain ceremonies such as the inclusion of red ocher or some form of blood is used to regenerate life and people who are born blessed by the spirit are then eventually struck down with an illness.

It was interesting, the ceremony this morning by Professor Dingwall on the biblical side. The last slide I showed you was a very senior witch doctor who has trained thirty others. She was the daughter of an ordained Zulu Methodist minister. There was tremendous conflict in her family when this spirit possessed her, and although the Methodists tried all they could, her father, despite being a Methodist minister, finally advised her to go a sangoma and this she did. Now because of her upbringing, she knows the Bible extremely well and recently I went to her concerning this very conference here, and I told her that I was going on a journey and I wanted the bones. I go on journeys frequently as you realize from this field work. When she threw the bones, she said, "But you're going on a different journey; you're going over the big water, and the place you're going to, people are going to know about us, us sangomas, and you must tell them." I have permission to be here, in other words. I'm allowed to tell some of these things. It is very important, indeed. There are certain things which I may not divulge about initiations and ceremonies, but her plea was that the place I was going to would be a great hall with a great number of people and she saw these people. She said, "This is not like your office in the museum where a few people come in; there are a great number of people here." I might say she had one or two words to say about certain individuals here, personalities you might say, but that's another secret. She said, "In that place, you must tell them that we sangomas have no choice. We might have been converted to any of the Western religions. When the spirit takes us over, we have no choice but to be trained." She went on to say, "Me, here, for instance, I was a Methodist and now here I am." And the room she was sitting in has one wall completely covered with her own witch doctor paraphernalia and off to the side a very large framed picture of "The Last Supper—*The Last Supper.*"

She asked me to tell you that she herself was sick for three years. She was bedridden for three years until finally she accepted this spirit. "These personalities," she said. "There might be a slight clash in beliefs, but don't worry about that." She said as long as I told you the truth, there was nothing to worry about. She at the moment is training a very interesting Twaser apprentice who is half bush, half Kalahari bush and half Sotho who was a very powerful diviner. She has seen the photograph of the first sangoma that I showed you, the one that officiated at my initiation, and she herself wants to go through the twelfth level training. Around Johannesburg there are no sangomas that are qualified themselves in this twelfth level, and obviously you can't train another unless you are. But she came to me with a dream and she said, "I saw, in my dream, that picture of Risibe the first witch doctor and now I must tell you where I saw her." And she described in greatest detail that range of mountains which I showed you right in the beginning, the range of mountains that I went and lived in. She described in great detail down to the number of caves and a particular valley which is a very striking valley, and she told me exactly where this old woman lived, and that she has to go there. So when I get back, I have been asked to take out a number of them including her on a herb-collecting expedition, and she is going to go to this woman for further training.

It is interesting that quite regardless of whatever tribe you might be, if you are afflicted with this spirit, you will be led to a witch doctor, and quite regardless, be it black, white or yellow—it doesn't matter what tribe you belong to—they must accept you and they must train you. I have just been put onto another European, the only other one I know that has been accepted by sangomas, although he hasn't undergone initiation, and when he goes into trance state, he speaks Zulu which he can't speak a word of normally.

My teacher at the moment, although she is Zulu, when she goes into trance states, she speaks Tonga, which is found in Mozambique and which very few people speak—one of the early Bantu languages, and therefore it's quite difficult to follow a large number of them in this trance state.

SKINNER: I have a number of questions. You have referred several times to the democracy in terms of training. Could I be trained? If I go there, could I be trained by this woman?

BOSHIER: As I said, this depends on you.

SKINNER: You mean the South African government will give me a visa to do anthropological research in Soweto.

BOSHIER: I would say that you would probably have far more difficulty with the sangomas than with the South African government.

SKINNER: No, I'm not talking about that. You see, I must get a visa in New York before I go to South Africa, so we must put this into total perspective before one talks about the democracy. I know that there might be problems on a psychological level between myself and the sangoma.

BOSHIER: But what you want to know is, acceptance on a government level?

SKINNER: Could I get into that society?

BOSHIER: I'm afraid I had the same kind of experience as you had. I'm afraid I'm not qualified to answer that. All I can tell you is that I came out of England, went out to South Africa and went out, as I was told by them here, because my spirits so decreed I would go out. I had no difficulty at all. I went into the African areas. I today get permits from the South African government.

SKINNER: To actually work in Soweto.

BOSHIER: To work in Soweto. To work in all the African reserves. They know that I'm working on witch doctors, and they're not banned by law—witch doctors may practice. I have encountered no difficulty whatsoever. I might mention one other thing, and that is that the research assistant who was being sponsored up until this month by the Parapsychology Foundation—I mentioned she hails from Massachusetts—she has had no difficulty whatsoever in going.

SKINNER: What is her name?

BOSHIER: Costello. I got the permits for her, but she has had no difficulty whatsoever in going into Soweto.

SKINNER: My second question: You've gone through an apprenticeship. What are your powers of the function of your brain? Could you tell us something about that?

BOSHIER: You mean mine personally?

SKINNER: Yes. Because you've gone through this after all, and there are thought waves as you've reported. You may have gone through the first one. What is the outward and visible sign of an interior accomplishment?

BOSHIER: Well, as I say, one is afflicted with shamanistic-like illness which is usually some sort of mental illness; some medics call it epilepsy. I had a case six weeks ago of an African girl who was actually certified. I managed to get the authorities who came to me to rescind this decision and to release her. They passed her over to me and I passed her over to witch

doctors and she continues to go into these epileptic-like states, but she has been trained now to utilize them, and if you go to her, having lost something for instance, she will go into exactly this sort of state. She might flop onto the ground and she might foam at the mouth. I must admit that I personally have gone through some of these things.

SKINNER: Professor Dingwall, you talked about the anthropologists during this last presentation, and the question is the nature of the relationship with so-called primitives. Rather than considering yourself primitive-like, is it possible that you can consider the people also sophisticated, so that this might be a way of explaining their relationship to you? A kind of sophistication that appears as a function of their humanity, their cordiality in their attempt to establish rapport with a visitor?

DINGWALL: You have to enter, I think, into their sophistication.

LEWIS: I want to ask one or two factual questions, please. Could you tell us a bit about the nature of the spirits that you've encountered, or at least that your colleagues have encountered and in particular about possible European spirits or Indian spirits and the role which people you've been working with cast them in?

BOSHIER: Almost always as ancestors. They will, of course, sit around in the morning and always discuss their dreams, and it is here that a young person who might have this ukutwasa, these symptoms which suggest this person should be trained, will discuss with his or her family these visitations which they get and describe them in great detail. They have very lucid conversations with them and it is then that a grandmother or mother might identify these spirits as an ancestral one, and will give the name. Now this is important. It's being used in this particular study, of course, for tracing back genealogies. The man I mentioned, with whom I went to the ancient mines, while out there at the mines, he prayed to his ancestors, and he was able to go back thirteen generations by men giving each name going back to his grandfather's line, and he was able to describe to me each one of these spirits. On the spirit of the thirteenth ancestor he directs his prayer to all of those ancestors who went before and whom he cannot identify, would they in turn pass this particular prayer or thanksgiving or whatever it is, on to God. They believe in one supreme god. They believe, however, that it is extremely unlikely that one can speak to God directly. Now in African culture, of course, you find this in many ways. You may not go and speak to a chief directly. He has an intermediary, and God has intermediaries and these are the spirits, our ancestors' spirits, and they describe them in great detail, male or female.

LEWIS: Yes it's very familiar, of course, in Catholicism. But what I wanted to ask specifically was, did you encounter any specifically—that is, any spirits which were specifically identified as being of European origin and not African origin? Or, if you like, of Indian origin.

BOSHIER: Not Indian, but yes, European.

LEWIS: Can you tell us anything about the role they had or their characteristics which would distinguish them from their ancestors that you seemed to be talking about yesterday.

BOSHIER: No difference whatsoever. You can be guided by these people. There was a very interesting case. When I took a Swazi sangoma with whom we were working (she is now on her second level of training), I took her with Miss Costello (the American girl) some three hundred miles north of Johannesburg to a cave, which is fairly famous in South African history—a large battle was fought between an African tribe and the first European intruders there. Now I didn't tell them the name of the cave. I was interested in what change her dreams might have in this environment and we recorded this—we had a tape recorder which we switched on the first thing in the morning—and she recorded a dream the night she was visited by both European and African spirits, and she repeated very much the sort of story which I mentioned yesterday. That is, on the spirit level, there is no distinction at all. You may have a black or a white spirit, and although they will agree that although there might be a difference between us living as we do in normal reality here today, on the spirit side there is no difference whatsoever, no distinction at all.

LEWIS: You haven't encountered anyone possessed by the spirit of the present prime minister of South Africa?

BOSHIER: No.

LEWIS: Thank you.

BRIER: Now, Professor Smith.

SMITH: I wanted to comment on the need to be primitive in order to make contact with primitives. I wondered about what is the nature of being primitive. I think it is simply being human, but being human in a sophisticated but also in a very elemental way, and to have real and deep respect for one's self and other human beings; or if you are a physicist, you have deep respect for physical things. This is the most essential instrument. If you are arrogant, you can be as clever as possible, but you have shut yourself out from that much knowledge. If you have deep respect. . .

BOSHIER: Humility. . .

SMITH: Yes, humility, but not obsequiousness. . .

BOSHIER: Yes, definitely not.

BRIER: Van de Castle?

VAN DE CASTLE: Just a comment. In my opinion, this has been the best paper presented at the conference. This is exactly what I had hoped would be emerging from this conference: an account from somebody who had gone out into the field, had learned to speak the language, had lived with the people, and who was a trained observer who could document what happens in the field and who was open to a possible parapsychological explanation for the events observed. The question from parapsychologists is: does psi occur in primitive settings? From the accounts you've been giving us about the series of tests and examinations that candidates have to go through in terms of hiding the goat and hiding other objects, it seems that an encouraging answer can be given to that question. Maybe I'm speaking out of turn, but if there is any question of support from the Parapsychology Foundation, I would yield my own financial support to the support of this work, because it's far more relevant and important than that of anybody else that I see seated around this table.

BOSHIER: Well, I can't agree, but thank you very much. One thing I'd like to mention if I may, and that is this particular Zulu who I showed you at the end, the daughter of the Methodist minister—and Professor Dingwall might be interested in this—asked me if I knew a man called Jesus Christ, and I said, "Well, I've heard of him, sure." And she said, "Well, he is a Sangoma. Didn't he walk out in the wilderness and didn't he do all the things we had to do?" This might interest you. As far as she was concerned, Jesus Christ was a sangoma, and I asked her what a sangoma is and she said, "All people have the spirit, but some people are given a much more powerful spirit, and Jesus Christ had a very powerful one." I see Professor Bharati is not here. I wanted to reply to him. He mentioned the feeling out in tribal parts of India regarding the astronauts. I had a case with a witch doctor—of course, there are many forms, many types of witch doctor. There is the sort of hex death, as we discussed, and there are above all, especially in a drought-stricken place like southern Africa, rain doctors. I asked the group with whom I was working what they thought of the astronauts—this was the time of the first successful moon shot. They said they had heard about it and they could possibly believe it, but they were in great fear and dread of it because they couldn't expect any rain the next season because as

we all knew, this was where the rain came from, the moon. The sun and the moon operate the rain. Well, it so happened that we had very good rains that year and when I went back to them and asked them how they could explain this, they said, "Well you didn't tell us he was a Moroki," which means rain doctor. As far as they were concerned, the astronauts were rain doctors.

BRIER: Benson Herbert.

HERBERT: I have a question first, regarding the story about these two bones that this witch doctor threw and kept on throwing, and one bone indicated you were underground and indicated danger with the leopard. I'd like to ask, in your experience, what actually takes place? She has the bones in her hand and throws the bones?

BOSHIER: Yes. These divining bones should traditionally be made of ivory. Following the directions of the spirits, which means you will walk down to, in this case, both oceans, the Indian and the Atlantic Ocean—you will walk to certain mounts and certain rivers, and in these wanderings (and this is why they assumed that I was training) you kill animals, and from a female impala you take a small knuckle bone; from the male impala, you take a small knuckle bone; from a lion or just about any animal you can mention, they do likewise. Then they have a huge set of bones which they can barely hold in two hands. They split them in two; they breathe on them (which is putting the Moroki's breath into the bones to make them talk), and then they simply throw them on the floor.

HERBERT: Have you done any experiments by throwing the bones in some random fashion, some mechanical fashion, so you could not unconsciously control these bones with your hands?

BOSHIER: I find myself in a very difficult position for this sort of testing.

HERBERT: I have an institute in South Africa which is very anxious to apply EEG tests, among others, to these witch doctors.

BOSHIER: Quite honestly we haven't done it yet. Obviously we have to because of scientific demands, but I haven't.

BRIER: Mrs. Haynes, is it?

HAYNES: I have just a very small question. A friend of mine is being adopted as the grandmother of a tribe. She's white. She's a writer.

BOSHIER: What's her name?

HAYNES: Naomi Richardson.

BOSHIER: Oh, yes, I know.

HAYNES: She has had one dream during illness of being visited. Does this question of adoption into a tribe overrule actual blood relationship?

BOSHIER: Yes.

HAYNES: Will she become a tribal ancestress in her time?

BOSHIER: She could. It does overrule blood relationship in many cases.

SKINNER: I know the wife of someone who is working among the Yoruba in western Nigeria. Apparently she has gone through the same process as you have. I think she has gone farther through the process. Are you familiar at all with her?

BOSHIER: No, I'm not.

SKINNER: You might be interested to establish contact.

BOSHIER: I must mention there are different initiations. The initiation into the tribe, of course, doesn't have anything to do necessarily with a witch doctor; they are separate.

AFRICAN BELIEFS IN THE PSYCHIC MANIPULATION
OF MATERIAL PHENOMENA:
THE TENGSOBA IN MOSSI SOCIETY

ELLIOTT P. SKINNER

The structure of a society's attitudes toward parapsychological or supernatural phenomena is a function of its technical system, its social organization, its ideology and corresponding ecological conditions.^{1,2,3} This is equally true of a society's attitudes toward psychological and natural (or normal) phenomena. The difference, of course, is that whereas these latter phenomena are frequently encountered, people become quite upset when confronted with what they consider to be the unusual or the uncanny. Yet, the fact remains that both contrasting types of phenomena belong to the same universe—the world of man. The problem for most people has been to decide what to do about episodic and uncanny events. Only a few people in all the societies through space and time have been content to ascribe these phenomena to coincidence or chance. Most have attempted to explain them by employing "scientific" but more usually "nonscientific" concepts, that is, by using magic or religion as explanatory devices.

A number of anthropologists have pointed out that the people who have customarily used nonempirical or nonscientific means to explain uncanny phenomena are "no more nor less interested in the natural causes of things that is the theoretical thought of the sciences."^{4,5,6} Moreover, many of the postulates of their "nonempirical" explanations are related to their experiences. The question as to whether these postulates are the correct ones is normally a source of contention. However, all postulates about the relationship between cause and effect change over time, and reflect not only the technical system being employed by people, but the nature of their social organization, the ecological factors of their existence and often the politico-ideological issues that are of great importance to them.

There is widespread belief in many African societies that human beings can control the forces of nature, especially rain, but often thunder, lightning, growing crops, and so on. Mbiti declares that "Rainmakers are reported in all parts of the continent."⁷ The reason being that "In African societies rain is regarded as a great blessing, and whenever it rains people rejoice (unless

excessive rain damages crops or causes harmful flooding). Whether they are farmers or pastoralists, the entire livelihood of the people depends upon rain. Near the Equator there are generally two rainy periods and two dry ones in the year. Further away from the Equator these two sets of seasons tend to merge and produce one long period of rain and one long dry season. In either situation, if the rain is delayed it means that for that season there will either be insufficient harvest or none at all, and this causes a lot of anxiety to everyone." ⁸ The result, according to Mbiti, is that regardless of what their specific function is with respect to rain, the "rainmakers are some of the most important individuals in almost all African societies." ^{9,10}

Given the importance of rain in most regions of Africa, with the resulting anxieties, it is quite understandable why the people are interested in the phenomenon itself, and in those persons who can control it. By keen observation of the natural signs such as the position of the stars, the behavior of vegetation, and the periodicity and strength of the prevailing winds, most people in these societies have a fair knowledge of the nature of the rainfall in their region. Nevertheless, there are certain circumstances in which their knowledge of the natural order is insufficient to deal with untoward events such as unusually heavy or unseasonal rains, and the absence of rain, or the localization of rain in one part of the country and not in the others. These circumstances "can only be coped with in terms of wider causal vision than common sense provides. And in these circumstances there is a jump to theoretical thinking." ¹¹ Nevertheless, the type of theoretical thinking that the people resort to, does not exist in a vacuum. It is related to their knowledge of their local eco-systems, their technical system, their sociopolitical system, and their ideology. Moreover, their theoretical assumptions, whether "true" or "false," provide an explanation which is usually satisfying since it harmonizes with most aspects of their society.

The belief of the Mossi of the Upper Volta that a group of specialists, the *Tengsobadamba* (sing. *Tengsoba* = master of the earth) have the ability to control rain and lightning, and can teleport these phenomena and also growing crops from one region to another, reveals their concern about the vagaries of their sources of food, the problem of morality, and their social and political organization. Writing about the Mossi, Mangin states: "Water in general and rain in particular are a blessing in this sun-scorched land. . . . If rain is too long delayed, the crop will not have time to ripen; if it falls too heavily, especially at the beginning and at the end of the winter (rainy) season, weeds will choke the millet, or flowers will fall before the fruit is formed. . . . Rain is, therefore, desired or feared according to the circumstances and the power to makè rain and to ward it off devolves upon the naba who rules on the life and death of his subjects." ¹²

Mossi society itself arose in a strategic but rather difficult ecological zone in the Sahel-Sudan region of West Africa. Situated between 9:30 degrees and 15 degrees north latitude and between 2 degrees east and 5 degrees west longitude, Mogho (land of the Mossi) covers an area of some 30,000 square miles and is inhabited by about four million people. Geographically, the country is a huge plateau, lying from 1,000 to 1,600 feet above sea level, and broken by three low mountain ranges and numerous small hills. Its climate is typical of the Sudanic zone. There are two main seasons: one cold and dry, the other hot and wet. The first begins in November with the coming of the harmattan and ends in January, the coolest month, when the average temperature is about 70° F. and the humidity about 12 per cent. The hot season extends from March to October. In July, the warmest month, the temperature reaches a high of 88° F. and the humidity 78 per cent. Violent dust storms herald the rains, which begin late in May and end in September. The rain falls almost entirely in heavy showers and thunderstorms, and the average annual fall is between 30 and 40 inches. In those years when the rainfall is about 40 inches and is regularly spaced, the Mossi can look forward to a good harvest. When the rainfall is below 30 inches and is spaced irregularly during the planting season, the threat of famine is serious. Almost every year, there is a difficult "hungry period" (the time between the exhaustion of one year's crops and the maturity of the next).

Traditionally, the Mossi did not practice irrigation. The country is drained by only three rivers: the Black Volta, the Red, and the White Voltas with their numerous small tributaries. Only the Black Volta flows all year round. The Red and White Voltas dwindle to a string of small stagnant pools in the dry season. In some low-lying areas near the main watercourses, trapped waters provide the moisture for dank riverine vegetation, but are useless for irrigating the soil. These soils are typical of the Sudanic and Sahel areas. Red argils and pure silicates of aluminum predominate in the northern regions, and those soils in the south are thin and sandy. They are eroded by torrential rains, the scouring action of the harmattan, and the incendiary action of man and nature. Even where the soils are reasonably fertile, the nature of the underlying rocks precludes important deposits of ground water. Wells yield very little water at any depth.

During the dry season, Mossi country presents a picture of such utter aridity that one wonders whether it is possible for such parched red soils to produce plant life. Yet, after the first drops of rain, the entire plain quickly becomes covered with grasses which sometimes reach heights of five or six feet. The most characteristic and valuable trees in the region are the baobab, the locust-bean, the shea butter, the tamarind, the kapok (*Bombax*

costatum), and a wide variety of silk-cotton trees. The cultivated plants include numerous varieties of cereals, roots, and legumes. Sorghums and millets constitute the staple crops of the Mossi, but maize is extremely important because it is one of the first crops to be harvested after the difficult hungry period. Peanuts, onions, rice, beans, okra, fonio, manioc, tobacco, indigo and sweet potatoes form the bulk of the other cultivated crops. The Mossi exploit such wild fauna of their environment as elephants, varieties of antelope and the fish in the various pools. They keep chickens, ducks and guinea fowls, and herd cattle, sheep and goats. These animals, plus their vegetable products and manufactured goods such as cloth, are traded in local markets and prior to European contact were exported both north to the desert area and down into the forest zone.¹³

Geography, trade and politics all played key roles in the development of Mossi society. The society falls within the northern quadrant of the Voltaic area, a region extending from Salaga (Ghana) in the south to Ouahigouya (Upper Volta) in the north, and inhabited by Moré-Dagbane-speaking peoples known throughout the history of West Africa for their extensive trade between the forest and the desert. Oral traditions suggest that Mossi society developed as a result of the expansion of the Dagomba people of the Gold Coast (modern Ghana) into the Volta region.^{14,15} Here they conquered and partially assimilated the autochthonous peoples such as the Ninisi (Nyonyonse), Foulsé, and Habé. The resulting population, the Mossi, developed four important kingdoms and lesser principalities under rulers called *Naba* (pl. Nanamse), who, claiming divine right to rule because they possessed the *nam* (that force of God which permits one man to rule another) arrogated all political power or sovereignty to themselves. They also developed complex hierarchial administrative structures which extended the power of the Mogho Naba (king of the world) down through the districts into the smallest villages and funnelled goods and services back to them. Nevertheless, the ruling lineage left ritual control of their territories to the Tengsobadamba (earth priests) as the leaders of the defeated people were called.

Most of the institutions of Mossi society reflect the history of this conquest state. Mossi village populations are divided into noble, commoner, serf and slave, segmentary patrilineal groups living in polygamous extended family households. These social groups are linked together through a system of reciprocal exchanges of goods, services and women who serve as wives.¹⁶ Lineage heads not only control the social and economic activities of their corporate groups, but act as the important intermediaries between their people and the supernatural. The main religious referent of these lineages are their lineal ancestors, but the Mossi believed in a diety known as

Winnam, Winde, or Naba Zid'Winde. Associated with Winnam is a female deity referred to as Tenga whose local manifestations and propitiatory agencies are known as Tengkouga (sing. Tengkougre). These Tengkouga which exist in the form of clumps of trees, mountains, rocks, rivers and sometimes animals, are associated with spirits known as Kinkirse. Serving Tenga, officiating at Tenkouga and acting as custodian of the land and all that dwelt on it are the *Tengsobadamba* or earth priests.^{17,18}

The Mossi describe their Tengsoba as "The Master of all that touch the earth: the mountains, the hills, the plains, the rivers, the forests, the trees, the entire landscape, and everything that is within its limits and domains. His power extends equally up to the sky: the clouds, the rain, the thunder, the thunder-bolt, the lightning and so on."¹⁹ Thus the Tengsoba is linked both to the earth and to the sky. Indeed, a number of oral traditions recall how in the dawn of time the ancestors of the Tengsobadamba lived in the sky and used to visit the earth using a cotton rope. One day some people cut the rope and their ancestors were forced to remain on earth and became known as Teng'bissi or children of the earth or Nyonyose (to walk without making a noise, like the wind). In some traditions the persons who cut the rope were local people already living in the country, but in others, the culprits were the children of the Dagomba invaders. The latter allegedly took the chiefs of the Teng'bissi to Naba Oubri, the head of the conquerors, who constrained them to make sacrifices to the earth deity in his name and in the name of his descendants who later ruled Mossi country.²⁰

The traditions giving supernatural origin to the Tengsobadamba place these ritual figures in direct opposition to the political officials. In some traditions the first local political chiefs allegedly had to hunt down the Tengsobadamba who had fled to the woods and forcibly return them to the districts in order that they may continue to make the propitiary sacrifices to the earth on behalf of the rulers.²¹ Thus in matters relating to man's quest for food, and his relationship with the natural environment, the Tengsobadamba play a preeminent role. Land and all of its attributes belong to the realm of the Masters of the Earth. It is the Tengsobadamba who give people permission to occupy the land; give them the right to dig graves in the earth; and make the necessary sacrifices to propitiate the earth through its agencies, the *Tengkouga* (sing. Tengkougre) or earth shrines.²²

In contrast to the Tengsobadamba, the political rulers of the Mossi, the *Nanamse* (sing. naba) do not control land; they control people. Their possession of the *nam* means that God gave them sovereignty over other men. But, all the rulers of Mossi society, from the Mogho Nanamse (sing. Mogho Naba or "king of the world") to the simplest village chief, need the Tengsobadamba to make sacrifices to the earth shrines before they can take office or

rule in peace. In the case of the Mogho Naba, each year, surrounded by a large entourage he reportedly visits a large earth shrine called Tantibo in the vicinity of Sabatenga to offer propitiatory sacrifices in the name of all the people. When the country is plagued by drought, the ruler goes to an earth shrine in Ouagadougou itself, called "Kom be paspanga" (literally, "water is strong there"), for a sacrifice. Moreover, he might order all his district and village chiefs to perform similar sacrifices to the earth shrines within their territories. In Nobéré district, where I conducted field work, the district chief goes to the village called Barkago, where, standing barefoot and bareheaded on the hilly shrine known as Bêta, he orders the local village chief and the Tengsoba to offer sacrifices for rain and good health.

Cooperation between the Tengsobadamba and the political hierarchy in the interest of the people used to be highlighted each year throughout Mossi country by a number of important rituals. Until banned by the French conquerors, the Mossi of the Ouagadougou kingdom collectively celebrated a feast known as the *Tensé* (from Tenga, "earth") just before the crops are sown. At a prearranged date, all the Tengsobadamba and all the heads of families throughout the land made sacrifices to the earth and to their collective ancestors for good health, bounteous crops and many children. This ceremony was so important that even when it could not be celebrated collectively, the people in the districts and villages continued to make these sacrifices in secret. As far as they were concerned, they could not permit either the chiefs or the French conquerors to interfere with their relations with the fructifying earth.

The Tengsobadamba in many parts of Mossi country also make propitiatory sacrifices to the earth after the harvest. This ritual, called *kiugu* or *filiga*, is associated with the moon. For five days preceding the appearance of the moon, the Tengsobadamba (and often the chiefs) hide themselves from their ancestors by frequently changing their place of residence. The night that the new moon appears, the Tengsobadamba return home, prepare millet-flour water from the new millet of their own fields and pour libations on the earth of their houses as offerings to their ancestors, and drink the rest.

Although the Tengsobadamba cooperate with the political authorities in Mossi society, their major concern is with the earth and the life-giving or life-destroying rain. They are moreover, quite knowledgeable about nature and perceptive about the seasons. In the world of one Moaga (pl. Mossi): "A great astronomer, the Tengsoba observes celestial phenomena, the events of nature, compares them one with another, follows closely the flows of the seasons, draws from them conclusions upon which he establishes his calendar, and, to reinforce his authority, pronounces judgments which are followed by concrete facts."²³

Tengsobadamba possess special tools, attire, potions, and practices that help them in their task of dealing with nature. Their most important instrument is a ritual axe called the *toabgha* which they always carry on their left shoulder. This axe, made of iron and having three holes on its blade, is said to represent the wind which blows the clouds and causes rain. This axe is the most powerful instrument the Tengsobadamba have and they use it against all danger, and in particular, against evil occult forces. The Tengsobadamba also carry a hoe-like instrument called the *boudoubkourouri* which, incidentally, is the Mossi's name for the constellation Pleiades whose position in the sky regulates the beginning of the planting season in all parts of the West African savanna region.²⁴ Their forked iron stick called the *dá-yagre* is not only used during the major sacrifices intended to precipitate rain, but like the axe, can be used to support occult forces that combat malevolent forces. In addition to these instruments, the Tengsobadamba have bells (*loamba*) of different kinds that can either awaken the winds that bring rains, or frighted away the winds when rains are not desired; iron lances, special garments, hats and headdresses, and the very important rain medicines, or *teeme*.

The *teeme* generally possessed by the Tengsobadamba consists of a mixture of plant, mineral and animal substances. Sometimes these substances are used as they are; at other times they are placed in water; and at still other times they are mixed into a paste. Tauxier states that the *teeme* used by one Tengsoba consisted of "a cow's tail at the tip of a wooden handle."²⁵ Mangin states that in addition to the cow's or horse's tail the rain *teeme* consist of certain roots and pits of fruits which the Tengsobadamba keep in a jar, and certain roots which are burnt as desired.²⁶

Teeme is an important tool of the Tengsobadamba because the Mossi believe in its efficacy, and it is an important ingredient in their sacrifices. These sacrifices, designed to ensure rain during the planting season, are performed at the various Tengkouga or earth shrines in the woods, fields or villages. They may also be performed at special altars called "Tenga" located either in the courtyards in the compounds of the Tengsobadamba or in special sacrificial houses called *Kimsérogó* (houses of the dead). The Tenga itself usually consists of a large jar containing a large stone, different iron objects, copper and bronze bracelets and rings of different sizes. The jar sits on a log of wood, and the entire complex is usually red with the blood and feathers of sacrificial chickens, and white with traces of millet water.²⁷

The sacrifices which take place at the eve of the planting season are as much propitiatory rituals for the earth deity as they are communal rites in which the villagers, with the aid of their Tengsobadamba, prepare for the most important activity of their lives—the cultivation of the earth. It is at

these sacrifices that one witnesses the role of the Tengsobadamba, and sees the significance of all of their instruments: the toabgha that manipulates the rain-producing winds; the boudoubkourouri representing the Pleiades and the time for sowing; the da-yagre which precipitates the rain; the loamba which awakens or frightens away the life-giving rains; and the teeme, which when used episodically can control the rain, lightning and crops. The sacrifices of animals on the Tense, and the toabgha, are designed to encourage the earth to bring forth much grain, and to strengthen the axe so that it could cleave the clouds. The ancestors, too, are presented with their share of the sacrificial victims, and people are pleased when these spirits show acceptance of the offering by the animals dying on their backs. But all participants in the sacrifices are aware that the earth, the winds, the rain, and the power of the Tengsobadamba can also punish evil, and withhold from the malefactors the life-giving rain and bounteous crops.

As long as the rains appear on time, and fall according to a rhythm which permits the Mossi farmers to sow their grain; cultivate the growing crops without too much difficulty due to excessive rain and weeds; and obtain enough moisture so that their grain matures until it is harvested, everyone, especially the Tengsobadamba, is content. This the Mossi would like to believe, is the normal state of affairs, and they take it in stride. The problem is that nature is not often so kind. Mangin who lived for many years in Mossi country remarked that the onset of the rainy season is marked by violent thunderstorms; every storm is accompanied by lightning; and lightning often kills people. Some years are characterized by both violent rainstorms separated by dry periods so that the grain sown does not germinate; or grain germinates, but does not grow. The situation is often further complicated by the vagaries of the rainfall. One district or even one village may get sufficient rain for its crops, while neighboring districts and villages experience drought. Sometimes highly localized storms would lay flat the millet, maize and sorghum in one village or district while sparing neighboring ones.

It is during these periods of disaster that the Mossi turn to their Tengsobadamba; for many of them are firmly convinced that these specialists have the power to influence the winds, rains, lightning and growth of crops. The Tengsobadamba also believe in their power, but also view their role in a wider context, namely, in the total nexus of relationship between man and man, and man and the supernatural. In many cases, these natural disasters are preceded by social and political ones, and the Tengsobadamba attempt to deal with the human problems as well as the uncanny and supernatural ones. These specialists often view the two as linked together.

The Mossi often attribute the fatal effects of the lightning of violent thunderstorms "to an evil spirit, to an enemy who can send lightning if he

knows the proper teeme or to God Himself. Lightning strikes thieves and murderers; it is a punishment. If it does not kill the thief himself, it kills the proceeds of the theft, the stolen horse or sheep. It never kills a person without reason."²⁸ But since the Tengsobadamba are known to be the persons who possess the rain teeme, they are immediately called upon to deal with the problem. According to Ouedraogo,

When a thunderbolt falls somewhere, in a compound for example, one must refer the matter to the Tengsoba. A sin has been committed in that place, and no one can approach it. As soon as he is alerted, the Tengsoba arrives bringing with him a new calabash, and a new broom in his hand. At a few paces from the disaster he stops and softly recites some prayers. He praises the heavens, invokes its power, its help; for while personally he is nothing in its sight, yet he permits himself to intercede on behalf of his brothers. . . He fills his calabash with water, puts some black powder in it, and with the aid of his broom, sprinkles the water from right to left. After a while, a whitish smoke arises from a spot on the earth. He orders a hole to be dug there and after a few strokes of the pick, a triangular-formed slippery flint stone is found. He takes it, rolls it between his fingers, observes it, and gives the reason why the thunderbolt fell where it did. The frightened people back away trembling. They declare: "Who ever wishes to live long must exercise care with respect to the Tengsoba."²⁹

The critical role of the Tengsobadamba as a mediator with the supernatural in its relationship to people often rekindles or heightens their conflict with the political authorities, because the chiefs and members of the royal family are often the cause of many problems in Mossi society. Moreover, the Tengsobadamba have never forgotten nor forgiven the Nanamse for usurping their power and subjecting the inhabitants of Mossi country to sometimes intolerable exactions. Possessing no military power to sanction the kings, princes and nobles, the Tengsoba have had to rely on the supernatural.

Thus in Nobéré district, south of Ouagadougou, the people of a resident Ninisi family became enraged when a relative of the district chief impregnated one of their wives before she had weaned her child. The nobleman not only encouraged the woman to violate the lactation sexual taboo, but by so doing, endangered the life of the child. When they could get no satisfaction from the district chief, the Tengsoba, known as the Nimpwenaba and a member of the Ninisi lineage, asked all his family members to contribute white chickens for a great sacrifice. He threatened to flatten all the roofs in Nobéré in order to show the people that he was still a Tengsoba and that they could not molest a wife of his lineage and threaten the life of its child. This controversy lasted through that planting season, and the district did exper-

ience strong winds, and some roofs were indeed flattened. There was also a great deal of anxiety about the size of the harvest in the district.

So great is the Tengsobadamba's reputation for manipulating rain that they are severely criticized when rain does not fall. Robert Pageard, who served as a French judge in Mossi country, declared: "Rain does honor to the Tengsoba. First of all during the sowing season, but also during the course of the rainy season: a drought of more than fifteen days risks to be disastrous to millet. The same thing is true later on, for the last rains are very important for developing the ears of millet. We saw the case of an eighty-year-old Tengsoba named Sawadogo, who tried to assassinate his half-brother, who was seventy years old, because he suspected that the latter accused him of preventing the rain from falling. Fortunately, the strength of this honorable old man betrayed him, and the whole affair ended with a few scratches."³⁰ Many district and village chiefs in Mossi society have been known to threaten the lives of Tengsobadamba who they feared were endangering the lives of their subjects by withholding rain. That these people were seldom if ever killed is due to the fear of the chiefs that such an act would result in uncontrollable disaster.

While the Tengsobadamba are held generally responsible for rainfall in their areas, they often manipulate rain for highly personal reasons. Tauxier states that when the Tengsobadamba were travelling and wanted to ward off a threatened storm, they "need only wave the cow's tail and the storm does not burst. Once in the village, one stops waving it and the rain comes."³¹ Mangin also reported that all a Tengsoba needs do "when a storm threatens is to take from his hut a certain jar full of certain roots and fill it with water to overflowing. On the other hand, if he wished to ward off rain, he burns another kind of root, and the wind carries the smoke in the direction where the naba wishes to send the clouds; or else he hangs a cow's or horses' tail to a stick by a thread, and the wind tosses it, thus driving the clouds away."³²

It is this power of the Tengsobadamba to direct rain into certain specific areas that enhance their power and poses problems for the Mossi peasants; for they have *no* way of ascertaining whether nature or the Tengsobadamba are responsible for the rain or for the state of their harvests. As stated above, there are so many micro-ecological zones in Mossi society, and the climatic factors in those zones are so changeable, that ordinary people have few empirical means for dealing with them. The sight of a heavy rain falling in a neighboring village or district while where one is standing is bone dry, is often unnerving, especially when one's livelihood depends upon it. And given the ideology that the Tengsobadamba can be the agency for such

"capriciousness," one can readily understand why the peasants respect or fear them and are anxious about them. Similarly, the belief that the Tengsobadamba can transport growing cereals from one field to another is linked to the fact that due to winds and rain, crops in some of these micro zones do quite well, while those in others fail badly. Moreover, the Tengsobadamba claim that they are responsible for such events. Given these uncertainties, and the Mossi's belief in the Tengsobadamba's power, it is understandable why these specialists flourished. Of course, there were and are sceptics among the Mossi but even these sceptics often wondered whether the Tengsobadamba indeed had the power to influence nature.³³

Contemporary Mossi students and intellectuals are sceptical about the alleged powers of the Tengsobadamba, but this scepticism is now being challenged by a new interest in, and respect for, traditional aspects of African culture. Whereas, in the past, educated Africans echoed the beliefs of the missionaries that their priests and doctors were "charlatans," they are ready to challenge the paternalism of people like Father Eugène Mangin, who cautioned his European colleagues "not to laugh at their [Mossi] ideas, no matter how childish they may seem to us. To laugh at them is the surest way of hurting their feelings and of making them hopelessly secretive. In any case, is not sincere belief worthy of some respect, even if this respect is mixed with a certain amount of pity?"³⁴ Mossi who were educated by the Catholics and who have heard about the miracle of the saints and have been to Lourdes, have some of the same questions about Catholicism as did Father Mangin about their Tengsobadamba. Pierre Ilboudou has declared: "In fact, observing the seriousness of the sacrificer and his assistant, I several times asked myself the question that, seen from the outside, what is the real difference between the Tengsoba who makes the sacrifice and the priest who officiates at the Mass. My intuition has always brought me back to the conclusion that the only difference exists exclusively in the intention and the signification of their acts—in a word, in the value of the symbol."³⁵

Those Mossi who have looked into their traditional beliefs have discovered unexplainable phenomena which, in spite of their new religious beliefs and Western education, they still find mystifying and intriguing. In fact, it is difficult to find Mossi who do not believe that there are parapsychological phenomena in Africa which need further investigation. Laurent Ghilat states that the intellectuals of Mossi society must admit "that there are troubling positive facts that are inexplicable at the present state of human knowledge. But that on the other hand, it belongs to this generation [of intellectuals] to try everything to pierce their secrets and not content themselves with a puerile and systematic denial of them."³⁶ Kimbila Ouedraogo who has made a brief study of the Tengsobadamba's ability to

control the weather and teleport crops, declared: "I do not think that the Tengsoba should be neglected or entirely rejected. . . . He is a diplomat and an accomplished psychologist. . . . The Tengsoba possessed a science that is inadequately explained and whose secret he does not wish to confide to anyone. His ability to send or to harness that force of the thunderbolt is known to every Moaga. Who knows, whether in the end, the Tengsoba, as in the case of [Benjamin] Franklin, may not have found a lightning-conductor in another form? With progress, I believe that we will find this to be so." ³⁷

It is quite possible that the Mossi of the Upper Volta, and the other Africans, will subject the activities of the Tengsobadamba to a more rigorous study in an effort to determine their parapsychological dimensions. The questions they will ask may indeed be different from those of their ancestors. Their technical system will condition the nature of their inquiry and the structure of their society may condition who asks these questions. The ideology of negritude certainly will play a role in this enterprise; for Africans can no longer accept the notion that they are not the equals of other men. By looking again at the Tengsobadamba, they will join the growing ranks of those who have fundamental questions about the nature of man, and his relationship to the cosmos.

REFERENCES

1. RADCLIFFE-BROWN, A. R., "Religion and Society," *Structure and Function in Primitive Society* (Glencoe, N.Y.: Free Press, 1952).
2. GLUCKMAN, MAX, "The Logic in Witchcraft," *Custom and Conflict in Africa* (Oxford: Basil Blackwell, 1963).
3. NADEL, S. F., "Two Nuba Religions: An Essay in Comparison," *American Anthropologist*, Vol. 57, No. 4 (1955), pp. 661-679.
4. HORTON, ROBIN, "African Traditional Thought and Western Science," *Africa*, Vol. XXXVII, No. 1 (1967), p. 58.
5. GLUCKMAN, M., *op. cit.*, p. 85.
6. EVANS-PRITCHARD, E.E., *Witchcraft, Oracles and Magic Among the Azande* (Oxford: Clarendon Press, 1937), p. 63.
7. MBITI, JOHN S., *African Religions and Philosophy* (New York: Anchor Books, Doubleday and Co., 1970), pp. 69-89.
8. ———, *op. cit.*, p. 234.
9. ———, *ibid.*
10. NADEL, S. F., *loc. cit.*
11. HORTON, R., *op. cit.*, p. 60.
12. MANGIN, EUGENE, *The Mossi* (translated from the French by Ariane Brunel and Elliott P. Skinner) (New Haven: Human Relations Area Files, 1959), p. 124.
13. SKINNER, ELLIOTT P., "Trade and Markets Among the Mossi People," in *Markets in Africa*, ed. Paul Bohannan and George Dalton (Northwestern University Press, 1962), pp. 237-278.

14. ———, *The Mossi of the Upper Volta* (Stanford, California: Stanford University Press, 1964).
15. KABORE, GOMKOU DOUGOU V., *Organisation Politique Traditionnelle et Evolution Politique des Mossi de Ouagadougou*, *Recherches Voltaïques* 5, Paris, CNRS-CVRS, Ouagadougou, 1966.
16. SKINNER, ELLIOTT P., "The Mossi Pogsioire," *Man*, No. 28 (1960), pp. 1-4.
17. DELOBSON, DIM. A. A., *Les Secrets des Sorciers Noirs* (Paris: E. Nourry, 1934).
18. SKINNER, ELLIOTT P., "Christianity and Islam Among the Mossi," *American Anthropologist*, Vol. 60, No. 6 (1958).
19. OUEDRAOGO, KIMBALA, *Le Tensoba* (Ouagadougou: Mémoire de l'Ecole Nationale d'Administration. Cycle B. Année scolaire 1959-1960), p. 1.
20. PAGEARD, R., "Recherches sur les Nioniossé," *Etudes Voltaïques*, Nouvelle Serie, Mémoire No. 4 (1963), p. 25.
21. SKINNER, E. P., *The Mossi of the Upper Volta*, p. 15.
22. KABORE, G. V., *op. cit.*, pp. 27-28.
23. OUEDRAOGO, K., *op. cit.*, p. 17.
24. PAGEARD, R., *op. cit.*, p. 53.
25. TAUXIER, LOUIS, *Le Noir du Soudan. Pays Mossi et Gourounsi* (Paris: Emile Larose, 1912), p. 592.
26. MANGIN, E., *op. cit.*, p. 125.
27. SAWADOGO, DAVID, "Le Sacrifice sur L'Autel des Ancêtres 'Le Rambo Tinse'" (Ouagadougou: Mémoire de l'Ecole Nationale d'Administration. Cycle B. Année scolaire 1962-1963), p. 4.
28. MANGIN, E., *op. cit.*, p. 124.
29. OUEDRAOGO, K., *op. cit.*, pp. 14-15.
30. PAGEARD, R., *op. cit.*, p. 50.
31. TAUXIER, L., *loc. cit.*
32. MANGIN, E., *op. cit.*, p. 124.
33. DELOBSON, D. A. A., *op. cit.*
34. MANGIN, E., *op. cit.*, p. 92.
35. ILBOUDOU, PIERRE, *Contribution à l'Histoire Religieuse du Peuple Mossi de Haute-Volta, Essai sur l'Histoire du Paganisme Mossi des Origines à nos Jours*. Thèse de Doctorat de 3ème Cycle, Ecole Pratique des Hautes Etudes VIè Section, Paris, 1970, p. 133.
36. GHILAT, LAURENT, "Les mangeurs d'âmes" (Ouagadougou: *Voix Voltaïques*, Vol. 1, 1968), p. 44.
37. OUEDRAOGO, K., *op. cit.*, pp. 17-18.

DISCUSSION

IOAN LEWIS: Thank you very much indeed. I'm sure, if I may say so, you have amply demonstrated that you are both a diplomat and a very accomplished anthropologist. Yes, Benson Herbert.

HERBERT: I would like to ask you a few questions on your very interesting paper. First of all, you mentioned the expression "teleport crops." Have I got that right?

SKINNER: Yes, that's right.

HERBERT: Could you clarify that?

SKINNER: Yes: the ability to send crops from one field to another. In other words, the Tengsoba could transport (teleport) the grains of millet or maize from one field into another. The result of this is after this has been done, one looks at maize and finds there are no grains inside, or looks at millet and finds only husk.

HERBERT: Is there objective evidence of this?

SKINNER: Objective in the sense that this has been systematically studied? No. However, there is belief that this happens.

HERBERT: One more question, if I may. You said something about the control of lightning. Has anybody studied or has anybody said, "I will make this house be struck by lightning," and has the house then been struck by lightning?

SKINNER: I can only say in terms of my own experience that I had a long discussion with my assistants when I found out about the threat, and one night the roofs were shaking. The next morning my assistant came and we talked about it and he laughed. He said, "Here is another man who didn't believe." Now I can only cite this personal observation, but I can assure you that this is believed by most people in Mossi society, even the skeptical intellectuals.

HERBERT: Thank you.

SKINNER: I should say this: that most of the Catholic priests of the White Father Mission, *Le Père Blanc*, believe this. Apparently if you live in Mossi society for a few years, you end up believing. Now they have cited numerous examples. I remember my first arrival, being intrigued that many of these Europeans had in fact become African. This was before I got into my own study.

LEWIS: Dr. Dingwall.

DINGWALL: This paper has interested me enormously because at one time I paid a good deal of attention to rain makers in Africa and elsewhere. My attention was directed mainly by my old friend Geoffrey Gorer, in one of his books you'll probably remember, wherein he described some extremely puzzling cases of rain making. Since then I've gone into the literature rather considerably and of course, we know that rain makers have extended right into the nineteenth century in Europe,

and I describe one of them in my book, *Abnormal Hypnotic Phenomena*. Now, I'm inclined to think and I ought to say that it never enters my head that there is anything psychic about it, that it can be compared in a sense with water divining. Water divining is still a mystery just as rain making is. I am inclined to think that you can compare the two and that there is something to it, that some people are able to ascertain in a way which we have not yet described fully in scientific language, where water is and why rain is coming. Geoffrey Gorer found that he was utterly unable to think of anything that in any way explains some of the feats that he saw, and I admit that it is very puzzling and I am very glad you have brought this forward this afternoon.

LEWIS: You said privately that you had just been back recently from Mossi in what we all know is a time of terrible drought in the western Sahara, in fact, it's really a time of terrible starvation and hunger and famine—did you find any striking activity corresponding to this time of tremendous stress and difficulty?

SKINNER: Yes, as a matter of fact, I spoke to the Mogho Naba who is the Emperor of the Mossi at Ouagadougou, and he has started, as of two years ago, the traditional yearly sacrifices to the Earth shrines. He has been visited by people from the rural areas who are concerned that something is wrong in their society: morality, the political problems, etc.

LEWIS: Like the Americans.

SKINNER: Right. Of interest to me, and I have a great many problems dealing with what people consider the primitive mentality, because at the same time he was telling me this we were talking about the possibility of linking the Niger river system with the voltage system. He was talking about building dams; he was talking about political action in the Common Market, in the United Nations and in Washington. The same man within the same time frame and the same context was talking about parapsychological phenomena, religious phenomena or magical phenomena at the same time that he was talking about the ability of the Russians to reverse whole river systems and whether it would be possible for the Western countries to help and train his young people to do the same. In other words, the problem for the anthropologist confronting parapsychological phenomena, is to try first of all to recognize it for what it is; to try to understand from the perspective of the local population what they think these phenomena are, but more than that, to see these phenomena within the context of an ongoing social and cultural system. Whether or not we should be blamed for not believing, is a problem. Some of us do believe. Of course a

convention exists so that these things do not even get footnotes in our monographs. But good anthropologists ought to report, investigate, and try to deal with these phenomena, recognizing that perhaps our techniques are not yet sharp enough to understand them, or the possibility that our techniques may never be able to deal with phenomena of this kind. Perhaps, due to our being part of a Western system, we might never be able to deal with these ideas well enough to satisfy people from other cultural systems until a point has come in the evolution of man when we approach each other using the same linguistic symbols where there is such a complete interpenetration of culture that we can come together systematically and systematically look and investigate these problems. I think the next issue is to get Africans to talk—Africans who are anthropologists, who are Western trained, but in the face of the experience of their ancestors would have no problems with the nature of their biology, and would recognize culture for what it is. And that, I think, would be arranged in dialogue, because unless we can start doing that, I think we will be separated by linguistic conventions, cultural biases or what have you.

LEWIS: Thank you very much. I think actually, Elliott, that you would probably agree that you would find many people at this meeting who share the same cognitive dissonance that you have so eloquently described, not least myself.

JOHNSON: Could I ask, do the Tengsobas manifest any other psychic abilities such as precognition or clairvoyance?

SKINNER: Oh yes. Clairvoyance, precognition, interpretation of dreams and divination, except that the diviners in Mossi society are called Baga, and they are the ones to whom you go for divination, and their system is not too dissimilar from what has been reported in Madagascar or in South Africa. It belongs to the same class of divination processes.

JOHNSON: Thank you very much.

BOSHIER: Just to confirm what Professor Elliott has said. I don't think that many of the African leaders further south consider it any slight on their own status that they too maintain their own rain doctors, and this exists through the Republic and southwest Africa and quite far north from there. These are educated men and they will sit down and discuss the current topics of today while their rain doctor is sitting just across the way. This is considered by university graduates to be ridiculous, but of course, it is very important apart from bringing rain, whether we like to accept it or not; it is a very important way of keeping harmony in their nation.

SKINNER: I think one of the things that struck me this morning during Professor Dingwall's talk is the question of fear and its relationship to parapsychological beliefs, etc. As Frazier and others have pointed out in the past: yes, anxiety does play a role in the attempt of the people to cogitate, to understand the world around them, but one wonders whether or not fear is itself an adequate explanation. As you pointed out this morning, again, curiosity is certainly an important factor. Again, there are people who are natural philosophers. They speculate. They're not content. You find them in all sorts of places. They're the ones who refuse to accept. They seek to penetrate, they seek to understand. These speculators are driven by more than fear it seems to me, but by a curiosity, an unwillingness to accept the world as given.

WEINER: There have been several statements made in the past few days about how it is impossible to make a bridge of communication between a world which has the kind of system of belief which you have just described, and the Western world which listens to them and hears descriptions and will even accept the possibility or even tend to believe that these things happen; and yet there is no bridge of understanding. You see something and say, 'Well, I just can't understand it. I'm Western,' or I'm this or I'm that, and we have two points of view here. One is that indeed all we can do is describe from the outside, and the bridge of understanding is impossible. You just ended your paper saying that maybe there could be some kind of understanding evoked if the Africans would speak more. I'm wondering, are you able, coming from the West and trying yourself to merge with this, have you been able to work out any kind of understanding which you can communicate to your students, to your children?

SKINNER: No, I wasn't implying that the Africans who would investigate these phenomena would be able to make the linkage. What I am suggesting is that their explanation would be perhaps different from ours. For example, their terminology would be different. Their way of looking at the practitioners would be quite different. They will be viewing their phenomena, their parapsychological phenomena, more naturally than we would be dealing with it, and I am suggesting that once they begin to deal with these issues, then there will be another basis for dialogue. These men may have the same problems. What many of them believe or hope is that indeed their ancestors might turn out to have discovered certain techniques or certain practices which could be verified. We don't know. Many of them would have the same problems. Because they are coming out of a different sociocultural system, they would ask the same questions except that their linguistic ability would be different; their insights might be

different. They would sense things or have a capacity for belief which is greater than ours even though we try to empathize, etc. They would respect their ancestors hopefully.

KREITLER: For the sake of the very important problem you raised, Dr. Skinner, I want to correct a term I used this morning. I used it only to avoid going too deep into the theory of curiosity. In fact, I should have said that the basic need of humans is cognitive orientation, the striving to be cognitively oriented. Now these people face, on the one hand, the modern techniques of changing rivers, and on the other hand, the tradition of supernatural beliefs. They face this problem driven by a need for orientation, and it is my opinion that the major task of parapsychological research would be to help to create a theoretical system which could function as a cognitive bridge between the supernatural and our Western science. I doubt if this could be done by assuming another reality, but perhaps it can be done by bringing more of parapsychology into our reality.

SKINNER: When I was a graduate student, one of the things that always struck me forcibly was the juxtaposition among my African colleagues of parapsychological phenomena and Western science. You're having lunch with a young man and someone else talks about an experiment in class—Western Electric, I remember, making rain. And the young man would say, "That's no problem; there's a guy in my village who makes rain." Silence around the table. Well, what has happened is that in the structure, what he has done is to encapsulate in one universe things which many of us who come out of the West, unless we make this fantastic leap of faith, might not be able to do. But in Africa, people almost do it naturally; so that it might be that the African, because of historical factors, might be able to utilize parapsychological mechanisms or processes to accomplish certain things that we Westerners cannot. I should remark to you, many of you who are not Americans, that we have been shaken by the Chinese, in reference to our experiments with acupuncture. We can't really deal with it. Some of our colleagues are trying to experiment with it. There are problems with acupuncture. The point is, it works. At least, some people believe that it works; and if it continues to work, it will mean then that if our techniques for investigation of these phenomena are inadequate, then we have got to go back to the drawing boards. This might be a real problem, but we've lived with Heisenberg's principle; perhaps we can live with these contradictions.

LEWIS: Thank you very much indeed. I think that Professor Elliott

Skinner has very nicely made a bridgehead for us towards the next speaker, and I would just like to say that I don't personally feel that the bridge which Dr. Weiner referred to is quite as wide and yawning as he seemed to imply. I would have thought, for instance, that the recourse to mystical explanations which many Americans appear to rely on to explain the failure of their campaign in North Vietnam, was a very good example of the same kind of mystical explanations of misfortunes which Dr. Skinner was recounting among the Mossi, and I could give other examples of the same kind which abound in modern society.

THE OCCULT AND THE INTELLECTUAL

JEFFERY J. SMITH

A BROKEN SPOON

When Einstein was a small boy he was given a compass. Turning it this way and that, he saw that the trembling needle always turned North, and sensed that it was in rapport with something vast and invisible. He himself believed that that experience deeply affected his future discoveries, and I think he himself became more and more like that needle.

I am not Einstein, but I hold before you a broken spoon which to me is an intimation of powers—powers which both penetrate and transcend the space-time world as presently conceived.

Let me tell you how the spoon broke. I was having lunch in the Stanford University Faculty Club with the psychic, Uri Geller, asking him about the powers which he believes work through him. "Do you always know when the powers will manifest themselves?" I asked. "No," he answered. "Sometimes they come quite unexpectedly." At which point the fork poised in his hand simply buckled. A moment later he added, "Sometimes they don't just bend; they break." At which point the untouched spoon beside him simply broke. Furthermore, the break is peculiar. A slice of metal between the broken pieces has vanished, and the edges look as though they had continued to bend after the break.

Now I am not asking you to believe that this break was paranormal, though I have no doubt it was. For different but equally remarkable feats by Uri have been observed at Stanford Research Institute by physicists Harold Puthoff and Russell Targ. In one well-controlled, double blind experiment involving the detection of physical objects, Uri exceeded chance expectancy by over a trillion to one.

Nor am I asking you to focus on psychokinesis alone. For I believe that the whole constellation of paranormal effects—telepathy, clairvoyance, precognition, psychic healing, etcetera, form a complex of data that should be considered as a whole.

What I would like you to consider is this: Assuming that in some cases such phenomena are genuine, what are their implications for scientists

and intellectuals in general, and for anthropologists and parapsychologists in particular?

For centuries science has fought against ignorance, prejudice and superstition, to build a body of knowledge and technology based on the union of reason, observation and experiment. In doing so it has cast on the rubbish heap such apparently irrational phenomena as dreams, trances, premonitions, psychic healing, and in general the occult.

But just as anthropology still examines seriously cultures that have been cast on the rubbish heap of civilization, so parapsychology examines scientifically phenomena discarded by conventional science.

For some time parapsychology, the ragged stepchild of science, has stood at its door, hoping to be let in. This period of waiting, I believe, is nearly over. But what is more, I believe that the stone which the builders rejected will become the head of the corner.

For if phenomena such as the spoon-break are genuine, they call for a radical revision both of our current conception of reality and of our current conception of science.

THE CONCEPTION OF REALITY

For some time the basic scientific conception of reality has been that the physical is primary, and that life is secondary and mind a tertiary derivative. This conception may be overt or covert, bald or sophisticated, blunt or attenuated. But it is there, in the physical, social, and humanistic sciences. This focus on the physical has been immensely productive, but has generated problems that threaten to destroy us. Already drastic changes are in the air.

What will emerge we can only guess, but I would like to offer some hints of what the emerging conception of reality may be. I think one thing is already happening. The gulf between mind and matter and between the observer and the observed is already being bridged.

Consider once again the broken spoon. This was apparently both a mental and a physical event. Note the way the bending of the fork and breaking of the spoon seemed to enter into the conversation. It was as though consciousness and meaning were at work in the metal itself. Suppose they were poltergeist phenomena, springing from some unfathomed part of Uri's unconscious. Then we must deepen and enlarge our notion of the unconscious, for the phenomena took place in what has been marked off as the domain of physics. But can we stop there? Shall we patch things up by saying that mind seems to radiate a little further than we had thought? Or shall we postulate a mind-energy, a dimension or field of a more cosmic nature?

Faced with such questions, I sometimes turn to meditation. In fact, I used to meditate on the big bang theory that the space-time world sprang from a spaceless, timeless point into which it will return. What amazed me most was that we, tiny results of the explosion, can be aware of it, so I have tried to let my mind pass through the needle's eye to see what was beyond. Always, I drew a blank. But during one meditation it came to me that this blank was consciousness, and that the same consciousness that can conceive the big bang theory already reaches beyond the space-time world.

In my more critical moments, however, I suspect that whatever reality is, it is far greater in quantity no less than quality than anything we can conceive.

For centuries thinkers have juggled such concepts as matter, life and mind to determine which was the primary reality. Their efforts remind me of the Chinese game in which two players bring down their hands, a fist for rock, two fingers for scissors, an open palm for paper. The game is circular. Rock breaks scissors, scissors cuts paper, but paper covers rock. So, depending on our premises, matter can be one up on life, and life on mind, and mind on matter.

What we need, I think, is not just new ways of juggling old realities, but a new way of conceiving reality. Indeed, we see already emerging a radical empiricism, a phenomenology, which rests on the simple tautology that which is is, and that it is what it is what it is. This glimpse of the obvious is not as useless as might appear, because it is a way of saying that whatever else the world may be, it is such that whatever indeed has happened has happened. It gets rid of any absolute division between appearance and reality. It gets rid of thinking that the rock is real and the dream illusory. It opens the way to exploring in what ways dreams are real and illusory, and in what ways rocks are real and illusory.

In fact it would be better to abandon these concepts as much as possible, and concern ourselves with qualities and relationships such as they are. This is already happening. We have seen the increasing abandonment, for example, of the notion of causality as a principle of explanation. What we look for are models. A model may be a mathematical pattern which provides an analog for some pattern of events. What we have here is a symbolic relationship, a relationship marked by meaning. You can search through nature and never find a mathematical point or line, yet these logical and mathematical ideas, spun out of thought, are keys that have unlocked doors to the invisible structure of nature. It has been a triumph of symbolism, and symbolism seems to imply meaning and mind.

Now the symbolic relationship between a mathematical point and a point in space may seem to exist only for a comprehending mind and

therefore be merely subjective. But perhaps mind is explicit in nature, and the symbolisms of human thought are not just convenient instruments but groping intimations of the symbolic and therefore meaningful nature of the world.

Who knows? Perhaps the big bang universe is a thought in the mind of some cosmic poet, a thought which is born and dies in the flash of billions of years, but is made of the stuff of mind which may be timeless and transcendent.

To think of nature and existence as instinct with symbolism is in effect to say that the world is a world of meaning, and this is the emerging conception of existence or reality which I discern. So I postulate that everything that is has meaning, for only as we entertain some such hypothesis will we be impelled to search for meanings beyond man, and by searching perhaps find them.

Compare this idea with the root idea of Western science: that nature has order, and is therefore intelligible through the use of reason. This can in no way be proven, yet it has been the presupposition, mostly tacit, which, linked with observation and experiment, has brought science and technology to fruition.

In a way we are at the end of the road. Order is not enough. But this is no time to abandon the concept of order nor the logic and mathematics by which it is elucidated. But it is the time to search not only for the order of things but for their meaning. Not that their meaning is obvious, any more than the processes of nature are obvious. We speak of the cause of this or that, but all we lay hold of is a thread of causality, though one which can be crucial to us. So in our search for meaning, we cannot but make mistakes, and certainly will not grasp the whole complex of the meaning of existence, yet here and there we may discern threads of the meaning that may be latent in all things.

What has this to do with anthropology and parapsychology? Let me illustrate with an example. I wish to take nothing away from the great achievement of Castaneda in giving us an extraordinary inner insight into Don Juan. Yet in his attempt to bridge the gulf between anthropologist and sorcerer's apprentice, he vacillates. Typical is his question asking Don Juan whether he really became a crow. This, Don Juan dismisses as nonsensical. What Castaneda is doing is using the concept "real" in the conventional common and scientific sense. It is not a worthless question. We might put it more specifically by asking what would a camera have shown. The camera might give an answer, but it would not give *the* answer. For there seems no doubt that in some real sense Castaneda became a crow, though what the nature of that reality may have been is hard to say. What the phenomena of

parapsychology can do for the anthropologist, is to help free him from the deep-seated presupposition that the physical is the real, and that, therefore, technology is the primary determinant of culture. Put more positively, the phenomena of parapsychology can help reinforce the anthropologist's attempt to use but to transcend the preconceptions of his own time.

THE CONCEPTION OF SCIENCE

I believe we are seeing the emergence of a radically new conception of what science itself can be. For some time scientists have taken pride in what has been called a value-free science.

Actually, science has never been value free. It has flourished because for all their human frailty scientists have to a high degree practiced what Bronowski calls "the habit of truth," and truth is certainly one of the most basic human values.

What value-free science means is a science that will not prostitute its concern for truth to any other interest. Science may serve industry, but the true scientist will neither falsify nor distort the truth for expediency. The temptation to do so is great, especially in what seems to be a good cause. Lysenko provides a case in which political and social interests overrode the scientist's concern for truth.

But there are other human values that, far from enslaving science, supplement and reinforce its concern for truth, and for centuries these have played an important part in creative science. Einstein himself says that imagination is as important to science as reason, and that the aesthetic component in creative science is as necessary as the intellectual.

But what I wish to stress is that these are not simply supporting factors, as ambition might drive a scientist to heroic efforts, but are keys to the nature of what is being discovered. The grace we feel in the flight of a bird is more than subjective; it is an intuitive grasp of aerodynamics. If Leonardo had been less driven to analyze the mechanics of flight, he might well have developed the glider, for which technology was available.

In short, the new conception of science which I believe is emerging is one which calls for the full use of our humanity, so that we may probe not merely the mechanics but the meaning of things.

Perhaps this goes without saying as regards anthropology, for it is clear that an anthropologist's primary instrument is his humanity. For anthropology consists not of the collecting and reporting of discrete details, but of seeing each item as part of the life of a person and of his culture. The traveler sees a primitive man or woman as a stranger. The anthropologist sees him as human.

Likewise, the primary instrument of the parapsychologist is humanity.

Today we are blessed with hardware that permits probing experiments of great subtlety, but we must never forget that the psychic is a person, and that his paranormal powers are part of a whole which includes a living human being and much more.

Let me give two examples of the way in which anthropology and parapsychology can work together towards a more adequate development of each science.

A study was made of witchcraft in a number of African tribes. In all of the tribes studied, witchcraft was practiced by the tribe's underdogs, and was an underground method of getting at the establishment. Now in some tribes witches were of both sexes. But there were others in which witches were either all men or all women. The interesting point is that all the male witch tribes were matriarchal, and all the female witch tribes were patriarchal. Given our prejudices, it would be easy to follow this fact with the reductive assumption that clearly witchcraft is a socially compensatory activity and therefore illusory. But while it may be in a large measure compensatory, this still leaves open the possibility of its occasional authenticity. Such studies as this are valuable for the parapsychologist in order that he be aware not only of psychological but of cultural conditions influencing the seemingly paranormal.

We must not, however, conclude that the paranormal is nothing but a cultural phenomenon. Dr. Ian Stevenson's landmark studies of cases suggestive of reincarnation provided a striking case in point. As would be expected, alleged reincarnations occur with some frequency in cultures in which reincarnation is traditional. However, Dr. Stevenson also found many cases in countries where there is little knowledge of or sympathy for reincarnation. And what makes his findings most interesting is that a quite complex reincarnation pattern appeared in both types of culture.

In all such cases anthropologists and parapsychologists alike are dealing with complex, subtle and highly charged material. This they must examine critically. But it is equally important that it be examined on its own terms and in its own light. Let me comment on this by way of a parable.

Many years ago I visited the cave at Altamira with its great ceiling painted with bison and other animals. Brilliant electric lights had just been installed, as the guide mentioned proudly to the tourists, of whom I was one. Afterwards we talked, and he took me back into the cave and turned a flashlight to the floor. I had been moved before by the sight of the paintings, but now in the dim yellow light they sprang out full and alive. It is not always the brightest light that is the most revealing.

Shortly after this I made a survey of books dealing with the paintings,

and found that nearly all of them attributed their discovery to the Marquis de Sautola, who had suffered ridicule for over twenty years before mounting discoveries forced scholars to recognize the paintings as prehistoric. But it was not the Marquis who discovered them. He was digging in the floor while his five-year-old niece wandered about with a candle, and, looking up, cried "Toro! Toro!" So too we must not only dig but look up. We must not be only critical but open and naive as children.

THE SCIENTIST

It is clear that if we are to develop a new concept of science, we must also develop a new type of scientist. He will be one searching for meanings as well as mechanisms, and using his full humanity in his search. Yet more, he will, like the shaman, have a sense that he is in touch with something beyond all grasp, and which demands from him all his resources.

Of course what I am calling for is not really new, but appears in every age. We saw it in the child Einstein holding the compass in his hand. But it appears equally in quite different personalities. It appears, for example, in Freud. In his writing he appears to be the detached scientist, aloof and unperturbed. Yet his epochal *Interpretation of Dreams* came out of his own personal descent into hell, where he faced his own repressed incestuous and murderous desires, and brought back a new awareness of humanity in depth.

How different he is from B. F. Skinner, who is essentially a manipulator. Skinner offers us happiness through the conditioned reflex. But his conception of happiness is flat because his conception of human value is one-dimensional. To use his own example, if a young man is nervous about being drafted, he can be conditioned out of his nervousness. Now I am not discounting the power of the conditioned reflex, but only saying that the manipulation of what is already before us will get us nowhere. In Skinner there is nothing of the shaman, nothing of the sense of the power and the glory in us and beyond us.

What we really need, whether our field is physics, anthropology, or parapsychology, is a new sense of the potential of existence—something for the twenty-first century akin to the Melanesian notion of *mana*, the sense put in analytic terms, of a mysterious power for good or evil, a power inseparably psychophysical, latent in all things but especially responsive to people respectful of its power.

For anthropologist and parapsychologist alike, it is only as we stand in awe of man, observing his behavior keenly, noting his vulnerability yet aware of his unfulfilled potential, that we can hope to understand him in

depth. Ophelia says, "We know what we are, but we know not what we may be." but even this is not true. For what we are carries within it the imprint of what we have been and the seeds of what we may become.

A person is an extraordinary synthesis, uniting in himself body and mind, memory and imagination, the ability to conceive the square root of minus one, and to look up at a star that may no longer be there. A person is like an island universe, made of billions of parts, containing chemical factories, libraries, transportation and messenger service, a being in whom storms rage unheard, with quiet depths beneath the storms, a being grubby and heroic, a child at once of earth and sky.

Let us as anthropologists and parapsychologists bring more to such a being than questionnaires and zener cards.

PRACTICAL TECHNIQUES

Since I have been highly speculative, I will conclude by suggesting some practical techniques, which have value not only for the parapsychologists but for science and life in general. They are simple, yet to many they may seem bizarre. I call them techniques, because they should be as conscious and specific a part of any parapsychological experiment, as, for example, the wonderful Pratt-Birge method, or the use of the double blind. Yet they are also attitudes that can pervade our lives.

The first is that we should conduct any experiment or exploration with open-minded faith. Faith is not dogmatism. It is not assertion. It is trust, hope, and expectation. It is, as Paul says, "the substance of things hoped for." Whenever we form a positive hypothesis, it is because we give it some probability. And if we take the trouble to try to confirm or disconfirm it, it is because we have some hope or expectation of its being true. And the stronger this hope and expectation, the more ready we are to put it to the test. Faith, then, is not essentially in conflict with, but at its best reinforces the critical open-mindedness necessary to science.

We know through sheep and goat experiments that faith on the part of the sheep seems to give them higher scores. I think the same thing can be said for the experimenter. Bristling with scepticism, he is apt to introduce a negative atmosphere into an experiment. Scepticism is necessary, and I try to encourage an open-minded scepticism in my subjects, so that they will be less impelled to feel that negative results are worthless and to rationalize their failures. But this does not preclude high hope on the part of both subject and experimenter.

In the New Testament we read on the one hand that a man cannot by taking thought increase his stature, but on the other hand that faith can move mountains. These statements represent two extremes, neither of

which we should lose sight of. But somewhere in between we know that a person's self-image and expectations have a powerful effect on what he can do, and that his desires when acted upon are a powerful factor in bringing about the desired results.

We know also that a person is deeply influenced by his surroundings, and by his attitude towards them, which brings me to the second technique. It, too, is quite simple. It consists of asking for a result, asking with all that you have in you.

If you watch Uri Geller at work, you can see his hands hovering over an object, and feel the muscular tension involved. In fact, most psychics have overt ways of acting which are not unlike those of a shaman. But as anthropologists know, a powerful medicine man is not powerful merely because of his particular bag of tricks, but because of the power, the mana, which he generates. So Uri claims that what he does essentially is to *ask* the powers that be to bring about some result. And he asks with great intensity. Of course, the results may or may not come, and sometimes they come without his asking.

We know that desire can subvert intelligence, how wishful thinking can be an escape, but this is only one side of the coin. Desire is not caprice but has evolved out of billions of years of evolution. We hunger for food, because there has been food. Otherwise hunger would not have evolved. And sometimes we eat and sometimes we starve. Equally we hunger for meaning. Mind feeds on meaning, and we have evolved this craving because meaning has been there. Yet sometimes the greater our hunger for meaning, the more we fall into despair. Today most people are satisfied with crumbs of meaning, because they are convinced that beyond our little centers of human meaning, there is no meaning. But if meaning is of the essence of existence, then there is no reason why we should not cast our bread upon the waters, and cry out for what we most desire.

There is a wonderful passage by Eileen Garrett which expresses this so clearly and powerfully that I would like to quote it in full:

Among all our psychological faculties, awareness is the capacity for cognizance. As such it transcends the limitations which time and space impose upon the senses, and is able to gather experience in areas of being which the senses can never reach. Its nature is to poise, like a hunting hawk, ready to be sent abroad in any direction, to impale the attractive fact, idea, or event, and to bring back to the consciousness the trophy of its flight. It can move in any and all three of the dimensions of consciousness represented by memory, the senses, and imagination; and when controlled by the will, its efficiency can become a creative force in the individual life.

If, briefly, we shut out all sensory intrusions, and focus awareness upon our inner

selves, we shall acquire a sense of the dark and featureless vitality that moves in our bodies. And if, then, we ask ourselves, "What do I most want in this world and this life?" we shall experience the flight of the hawk—sensations created by awareness moving to find the answer. This movement may be in either of two directions, but not in the third. If we have thought constructively of this idea before, awareness may move into memory to find the answer; but if the question is not repetitive, awareness will make its flight toward the open spaces of inspiration. It may not bring back the answer, for the question is deep and subtle; but if we continue to sustain our resistance to sensory intrusions, and keep perception centered on the hawk, we shall perceive at least the direction in which inspiration lies, and undoubtedly the first creative stirrings of response.¹

After such a passage let me add no more. When the Buddha preached his "Flower Sermon," he held a lotus silently before his audience. May I then simply hold before you this broken spoon?

REFERENCES

1. GARRETT, EILEEN, *Awareness* (New York: Berkley Medallion Books, 1968), p. 35.

DISCUSSION

LEWIS: I think we have Dr. Kreitler to start off the discussion.

KREITLER: I am very glad that Dr. Smith brought up the theme of a new and all-encompassing theory unifying mental processes, physiological processes, and physical processes. In an article recently published in *The British Journal of Psychology*, Dr. Shulamith Kreitler and I explained that due to our research work in the field of meaning such a unified and unifying theory can already be envisaged. Back in the thirties, the psychiatrist and parapsychologist R. Rothschild suggested viewing the human body as an information processing system. Nearly twenty years later, Norbert Wiener developed the physical and mathematical aspects of information processing systems, thus presenting a model which proved suitable for different domains of application. Presently the model is used by communication engineers, physicists, biologists and cognitive psychologists. However, what do we have in mind when we speak of information processing systems? Do we really think about systems which process information, thus using the term "information" in the sense of Norbert Wiener which because of its generality is nearly senseless? No, we rather think of systems which process

meaning and not excluded alternatives. However, the term "meaning" had to be defined in a more precise manner than was done by Cassirer, Susan Langer and, lately, by Chomsky who, in fact, did not define it at all. We define meaning as a pattern of values along certain dimensions. Of course, basically different kinds of communication systems require different meaning dimensions or categories. We experimentally explored those dimensions which help to define the meanings psychologically processed by human beings. Yet these dimensions would not be adequate for meaning processed by DNA and RNA, as understood not by the scientist but by the cell itself. Again, we would have to use different categories for the atomic or electronic processes. Now, there are two possibilities: either we would eventually have to use a system of translations between these different meaning systems (which would be rather unfortunate, because when you translate, you distort), or there is another possibility which up to now was only a hint of a possibility. When looking into meaning categories, it appears that there could be something which we call master categories or master dimensions because they hold for more than one domain of processes. For instance, the "all or nothing category." Maybe there are more than one, and maybe we can discover them. Based on the unification of different meaning systems by the help of master categories, we would eventually be in a position to build up a theory which could use the same language, the same terms of reference for a unified explanation of what goes on in the world we live in. And I think this could be or should be the basic demand for researchers nowadays. In such a system we could, with not too great difficulty, ask ourselves what are the meaning categories of parapsychological processes, thus uniting parapsychology with all the other domains of psychological and physical knowledge.

LEWIS: Would you like to respond to that?

SMITH: I would like to, by thanking you, Dr. Kreidler, for your comment, but more than that, by urging you to pour your energies into the development of just such a unified theory with great emphasis on parapsychology. I know that you were originally lured into parapsychology as an incidental thing. I want to urge you to make it something very central. That's my response.

LEWIS: Thank you.

HERBERT: I merely want to ask some specific questions about Uri Geller. I saw his wonderful film in Prague and I also discussed it with some scientists in Russia, where I visited recently, and what I want is a little more

information. From the photos, I did not get a clear answer about the spoon that was broken. Can you tell me, was it warm to the touch afterwards?

SMITH: No. I am told that the breaking or bending of metal is without heat. In the case of the spoon, I picked it up right away and I felt no heat.

HERBERT: Good. I like that answer. The next question, very briefly. You said that a thin piece of metal had disappeared from the broken spoon?

SMITH: Yes.

HERBERT: May I have a look at the spoon? What is it that has disappeared?

SMITH: You'll see it in a moment. A very very thin slice has gone out. On the back, there is the word "silver," and the "i" has gone out from the silver, but the odd thing is that the fragmented pieces seem to have continued bending after the break took place. Now this is one of the peculiar phenomenon of. . . .

HERBERT: Would you say that one millimeter or half a millimeter disappeared? Oh, here it is. Oh, it is very tiny.

SMITH: I could talk for two hours on this. I should say that Professor Dingwall considers this, without his having observed it, to be utterly the result of extraordinary trickery.

DINGWALL: Naturally, of course.

SMITH: I'm not arguing as to its authenticity. I have no doubt about it myself.

LEWIS: I think you should discuss this with the speaker afterwards. He was only using this to illustrate a theme, and since the theme draws together a lot of strands that have been milling around throughout the conference, I would suggest it would be helpful if people would try and relate their remarks to those more central themes. Elliott?

SKINNER: I have been thinking about your charge to the anthropologists. We have gone beyond the organic, and when you deal with the notion of culture, we deal with the superorganic, and for a long time, starting with Albert Krober and others, we have been trying to deduce laws of culture. I think that the problem of parapsychological phenomena for us is that we don't have too many examples of it. It's episodic as it appears naturally. And I think this poses a problem for us, perhaps methodology can deal with it, but there are problems.

SMITH: Let me answer this. One reason why the data is so scarce is because an anthropologist who doesn't believe in paranormal phenomena is not particularly interested in it. What you're really interested in, what you love is all you really care about, or should care about. When you begin to look for it, you'll begin to find a great deal, and when you begin to accept paranormal phenomena as occasionally authentic, the methodology to deal with it will also develop.

BOSHIER: I don't think it's quite as simple as that, because very frequently, to take a very mundane example, one might spend twelve months in the same village speaking the language with some degree of fluency to the people who live there in some exotic community, and there might be only one funeral during the whole twelve months. One then writes a generalized account of funerals among that particular civilization based on one instance and a certain amount of secondary evidence and information.

SMITH: This is the difficulty and complexity of anything in life, I grant.

DINGWALL: I have the warmest feelings for Professor Jeffery Smith, but I am left by his paper completely speechless. At times I really felt as if I were listening to a voice from another world, the world of the twelfth century. I think Professor Smith would have been quite at home in that kind of world, when people were looking at the world from the magical point of view and didn't dream that the time was coming when mankind was going to awake from its dream and start looking at the world from the rational point of view and producing—I say producing—the technological civilization under which we now suffer and see our civilization declining. But Professor Smith undoubtedly looks at the world from the magical point of view and this is a world which I simply do not understand at all.

SMITH: I'm a mystic.

DINGWALL: Yes, I know, Professor Smith.

LEWIS: I suggest that we have a word afterwards because I honestly think this would very much cloud the consciousness of this session if we were to discuss these utensils.

SMITH: But Professor Dingwall thinks these are the result of tricks.

LEWIS: Yes, I'm sure he does. Who would like to make further comment?

HAYNES: I would like to state something in the hope of clarifying what goes on within myself and I hope within you. It seems to me that a great deal of the controversy we have is due to the fact that people are talking two

different languages. One is the language of measurement; the other is the language of experience. So far as experience is concerned, we have to talk of flights heavenward and downward. We have to talk of taste, sight, hearing, and sex. It doesn't mean that we are using those words in their original simple sense. We are using them because we have no others and we can only speak in analogies. If we can't speak in analogies, we can't speak at all of matters which are not susceptible to the tape measure and the scale.

LEWIS: Thank you. Do you want to respond, Professor Smith?

SMITH: Yes. I agree with you very much, but I would add further that the tape measure or any linking of mathematics with observed phenomena—these are also analogues.

LEWIS: Thank you very much. I think we ought to stop now and allow Dr. Servadio to make some more generalized remarks.

CLOSING REMARKS

SERVADIO: Thank you. Well, ladies and gentlemen, friends and colleagues, before this conference comes to a close finally, may I, as a veteran of these meetings, suggest that a vote of thanks be expressed by all of us to those who made this conference so lively and so pleasurable. My thoughts, and I daresay say your thoughts and feelings go, first of all, to the President of the Parapsychology Foundation, Mrs. Eileen Coly, whose first name evokes for many of us the great and gentle personality of the founder of the Foundation, Mrs. Eileen Garrett, whose steps she is so ably and constructively following. Next, we certainly all wish to express our thanks to Allan Angoff, another propelling force of the Foundation and of these conferences. And we should not forget the tact and alertness and labor of Mr. Robert Coly and of all the other people who collaborated for the success, practical as well as theoretical, of our three days' work. May we and they meet soon again for further progress in our common pursuit.

LEWIS: And now Mr. Angoff is going to draw our various arguments together in what I am sure will be a very fruitful synthesis.

ANGOFF: Let me say, although our revels are now ended, I still recall the questions we asked ourselves when we began our discussions three days ago. Whose field is parapsychology? To whom does it belong? Who are its students and explorers? Well, we can at least say now and emphatically, I believe, that in the American vernacular (if you'll permit me in this international audience), that the anthropologists surely own a piece of it, or share an important part of it. Scores of your colleagues received your messages here, but many thousands more will receive them when the Parapsychology Foundation publishes in toto the complete proceedings, formal papers and informal discussions of this conference.

May I now turn and thank our six chairmen for their yeoman chores: Servadio, Smith, Lewis, Hardy, Van de Castle, Brier. It reminds me of my army days. Or, if you prefer, Rome, Stanford, London, Oxford, Virginia

and New York. I think you'll agree that the Parapsychology Foundation runs truly international conferences, and I haven't mentioned Johannesburg and lots of other wonderful places.

I am sure, however, you will not mind if I take the liberty of thanking for you and for myself, my colleague Bob Coly of the Foundation, for achievements which surely rank with your papers, if I may say so, and your discussions. He is the man, I will remind you, who has so effectively provided for our wants, our comfort, and for all the other great and small details so essential to the functioning of a conference, and conferences, I need not remind you, are more complex than they appear to be.

Ladies and gentlemen, on behalf of our president, Eileen Coly, and of the trustees, our thanks to all of you, all participants and observers. Ladies and gentlemen, this conference is adjourned. Thank you.