THE PARANORMAL:

Part I

Patterns

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Preface

In 1969 this author implemented techniques that had been utilized in experimental psychology to differentiate some of the patterns which existed in the semi-science of parapsychology. For reasons which are discussed in this text and the later volume: The Paranormal Part II: Mechanisms and Models, it is still not clear that what people "say" they have experienced as psychical events are at all related to the notorious statistical card guessing patterns of the laboratory. Consequently, the task was started to discover any patterns in the reports of paranormal experiences that might be relevant to laboratory simulation and perhaps replication.

Even if the stimulus and response aspects of paranormal experiences can be isolated, there will still be a great deal of work before the mechanisms are specified. In the final analysis, assuming experts ever agree on what constitutes a "psychical experience", society may find that such experiences are artifacts of the organism and the environment. For those readers who require more precise and technical detail concerning possible mechanisms involved in parapsychological experiences, volume II of this series: The Paranormal Part II: Mechanisms and Models is suggested.

Some interesting patterns of reports are presented in this textbook. They are, in fact, very similar to what people have been reporting for a long time. That these patterns really reflect the operations of the environment and the organisms at the time of the experience, cannot be verified from present data sources. Furthermore, what a person "believed" happened may reflect what has happened even less. This book was written in order to present some interesting verbal patterns that, following replication, could allow the control of so-called paranormal phenomena.

1 July, 1974

Chapter I

INTRODUCTION

People behave. They engage in both private and public behaviors. The public behaviors which we share with each other are easily measured. We can see other people walk, eat, work, play and talk. Perhaps of all the activities that human beings do, the most frequent is talk. On the other hand, private behaviors are not directly observable by an individual's peers. Such private behaviors include the thoughts, perceptions, and fears that each human being has in his lifetime. These experiences occur within each person, away from the public eye of society, and are not directly recordable. Our only connection with the private experiences of others is their verbal behavior, that is, what they say. Many times there is disparity between what a person says he experiences and what he reports to his neighbors and friends. But there is no other way we can verify or dispute his statements unless we have evidence to the contrary from our own experiences or the reports of others. Verbal behavior is subject to influences of social pressure, culture, expectancy and all the myriad of things that make an individual an individual. However this behavior is the major tool we have to monitor and measure what has been going on inside another person's head.

By itself, our inability to completely experience those feelings and fears of another person would not be a major difficulty. After all, society has existed for millenia since the development of language. The problem is that people say strange things, many

strange things. They say they see the ghosts of parents, feel apprehension at the time a loved-one is struck by a car, or have strong personal experiences for which descriptive words are often not available. People call them mystic, or cosmic experiences, and apply general words to them with such diffuse meanings as "infinite love" or "dissolved into the all of space and time" so that it is often impossible for others to understand what they have experienced. Psychologists and their colleagues in other disciplines face the same perplexity. To them science is organized knowledge which can be shared by others. It is a series of measurements which are repeatable or replicable once the specifications of the experimental situation have been completed. Verbal behavior from a single person is notoriously unreliable and often not repeatable in apparently similar situations. To the same stimulus a person might show completely different and antagonistic responses. In social circles one's comments about the same individual may be influenced by the people present, the topic of the conversation, and how he feels at the time. Consequently, before B. F. Skinner's text, Verbal Behavior, psychologists have been reluctant to tackle the job of understanding the multitude of factors which influence human verbal behavior.

Verbal behavior is limited. The interpretation and consequent report of an environmental event is dependent upon the

language, expectancy, and perceptual characteristics of the individual. A bright light in the sky might be called a flying saucer, spaceship, dragon, or angel, depending upon the words available in that culture for such an event. The twentieth century man from New York city calls the objects produced by General Motors a car, or automobile. A native of the Orinoco Basin, limited by his language, may call it a giant thundering lizard. The individual who has been food-deprived for twenty-four hours may see a poorly visible circle as an apple, while the young woman reading a murder mystery late at night may interpret the usual creaks and groans in the house as footsteps. In the graveyard, the gases produced by decomposing corpses may be seen as marsh gas by some, or ghosts by others. All of these reports are determined upon the expectancy of the individual. Even the side-effects of our perceptual system, when not understood or rarely experienced, contribute to the unreliability of verbal report. In a poorly lit room, a single spot of light will be seen to move when it is actually stationary (autokinesis).

Nonetheless, people still report seeing dead relatives, or having strange and apprehensive private experiences when a loved one is hurt simultaneously many miles away. Experiences of this kind have been traditionally classified as parapsychological, or psychical phenomena. These terms have many connotations attached to them, such as "parapsychology";

literally meaning "beside psychology". There is no reason, from our present understanding of nature, to assume that these events are necessarily beyond the laws, or outside the bounds of analyzing techniques to which more "normal" behavioral events are subject. Roll and Litt (1966) has pointed out that interesting parallels can be drawn between so-called parapsychological phenomena and normal behavior. Consequently, the author suggests using the term "paranormal behavior" since this implies that the phenomena in question involve operations in the organism and its environment not known to date, and do not seem to involve processes which are predictable from the known laws of nature. Paranormal behavior includes putative occurrences of telepathy, clairvoyance, precognition, astral projection or out-of-body-experiences, psychokinesis, apparitions, stigmata, invisible forces, and related phenomena. Collectively, these phenomena have been called psi-phenomena (Thouless, 1963). Reports of psi-experiences or verbal behavior concerning psi-experiences, include both vocal and written (textual) records.

In the past, works in parapsychology have been concerned with the validity of the reports. Researchers have gone to great lengths to trace the stability of the observer, his personality, and his reputation. They have set up arbitrary criteria by which psi-reports were selected as having a high likelihood of "actually occurring". Such an approach has one major limitation. There is virtually no way known to date by

which we can accurately measure or monitor what another person thinks or is experiencing. We can only infer, often mistakenly. To spend tens of pages rationalizing and attempting to convince the reader that subject X was a reliable, hard-shelled, no-nonsense person who certainly would not make up a story, does not tell us anything about the conditions or validity of the reported experience. The validity of any phenomena is only as good as the measurement device. The primary measuring device for psi-phenomena is verbal behavior.

There is another alternative. Across cultures and throughout history people have been reporting psi-experiences. Let us find out what they are saying. In this book, the major concern will not be to find out if the event actually occurred. There is no way we could prove that anyway. Instead the verbal behavior -- the testimonies, the reports, of people who say they have had a psi-experience will be analyzed. An attempt will be made to understand what these reports have in common. Do people report they see an apparition as solid, or transparent? In what percent of the cases does each report occur? What percent of the people report telepathic experiences in their sleep or dreams? In what proportion of the cases do people hear their names called or feel a strong apprehension or guiding force? It is by looking at the similarities of the verbal behavior that we may find enough consistencies to understand the factors responsible for the reports.

Admittedly, there are limitations to this point of view. This does not prove the existence of the phenomena. People do lie, there are psychotics and latent epileptics who report hallucinatory experiences. There are menopausal women with endocrine disturbances who find new sensations to which they can attach their fears or joys. And there are people who want to believe so much in something that they will interpret any unexpected event as a 'message' from a god. These limitations are recognized and assumed by the author. In the final analysis, we may indeed find that all of what has been called psi-phenomena are illusions and peculiar private events in the individual, resulting from changes in brain chemistry or minute epileptic episodes, or even minor oxygen insufficiency to parts of the brain associated with emotional and sensory behavior. Or we may find that psi-experiences are no more than artifacts or side effects from the way the human brain is organized; quirks of our genetic make-up. A bridge stands sturdy and able to take the passage of hundreds of cars and trucks. Then a small breeze at the optimal frequency begins to vibrate the bridge until the oscillations tear the bridge apart. Its destruction is a side effect; a characteristic of the molecular and mechanical construction. When we drift into sleep, our brain changes its electrical and chemical activity. While this change between "brain programs" is occurring, transient temporary disturbances may occur and we, for a short and misunderstood second,

experience an electrochemical change with which is associated a feeling that we have infrequently had and can find no words to describe. Infrequent events are novel stimuli and novel stimuli have stimulating and unique characteristics as long as they remain such, so they may be classified under the heading of 'mystical' or 'psychic'. The maximum and unique response to a novel stimulus with attenuated consequences when the stimulus is repeated has been shown to be a property of the nervous system. People still talk about the "March storm" of 1962 along the Virginia tidewater, but the number of the many times it rained that year has been long forgotten.

Although psi-experiences may be side effects of our brain's construction, these reports should be investigated, if only by virtue of the frequency of their occurrence. Thousands of people report at least one psi-event in their lifetimes. At any party, when the topic touches upon the peculiar or the strange, most have some contribution to the discussion. Then there are the minor strange experiences, such as déjà vu -- the uncanny sensation that something has occurred before, or seems vaguely familiar, which appear to be commonly reported. Psi-experiences have been reported throughout history and across cultures. The first reports of poltergeists are documented around 2300 B.P., if not before (Carrington & Fodor, 1956). Cultures which have no organized religion, such as the Gimi of New Guinea do have reports of dead members of the tribe appearing

near graves, and of "telepathic communications". In the least extent we should study these reports as interesting verbal behavior because so many people are talking about them.

In the present analysis of verbal behavior concerning psi-experiences, two words will be used frequently: reinforcement, and controlling stimuli. A reinforcement is the operation of presenting some environmental event which increases the probability that a given response, in this case a verbal response such as "I saw an apparition", will occur again. There are many possible environmental events or reinforcers which may determine if a person will report a psi-experience. The subject might report the experience because he has indeed seen something peculiar, or because he has been given attention by his social peers for saying peculiar things previously, or because his cultural training or childhood upbringing (his behavioral history) has conditioned him to interpret anything mysterious or out of the ordinary as psychical or mystical. These and other factors may contribute to influencing the speaker's comments on a "psi-experience".

Our task is to attempt to isolate the controlling stimuli of verbal behavior concerning psi-events. That is, under what stimuli or environmental events are these reports most likely to occur? Are there specific contingencies or factors in the environment in the presence of which a psi-report is more likely? Are there specific times of the day affecting the

emotional states of the observer? By isolating the controlling stimuli associated with the report of psi-events, we may someday be able to repeat them in the laboratory and reproduce at least the verbal phenomena. A phenomenon which is predictable can often be controlled. Once experimental manipulation of the stimuli which predispose a human being to report a psychical event is possible, then and only then will we be able to establish the mechanisms by which this phenomenon operates. We may also be able to discover if psi-experiences do involve new laws of nature or are merely modifications of present ones, or if they are the distorted illusions of transient perturbations of our perceptual systems.

In addition to looking for similarities in environmental conditions at the onset of psi-experiences, it is equally important to look for similarities in the responses -- the consistencies in the verbal behavior. Do all people see apparitions the same, or are they described differently? Do reports of people leaving their bodies, astral projection or out-of-body-experiences, show similarities? Despite differences in individual history and early experiences, similar stimulus conditions should result in similar responses. Although all of us have highly varied backgrounds, our descriptions of even the most diffuse experiences such as "love" are markedly similar in the words used, even though many times the exact words may be handy cultural clichés which are more easily available to us.

The question has often been presented that if psi-experiences are so important, why has science not explored them more fully? Except for a handful of scientists from many disciplines, it was not until Dec. 1969 that the American Association for the Advancement of Science, (A.A.A.S.), an official voice of orthodox science, recognized psi-phenomena as a relevant area of research. There have been, and remain, two basic problems. First, experimental control of psi-experiences is difficult since it appears to be primarily a private behavior, a personal experience. Compared to the number of putative cases reported, very rarely except in the cases of guessing cards (e.g., Rhine & Pratt, 1957), are the phenomena available for direct measurement. Interestingly, in these cases the results are attacked with such vigor (Hansel, 1966) that if the same criteria were applied to orthodox experimental psychology, most of the published experiments would probably be rejected on the basis of chance or experimental biasing. No doubt it is difficult to record spontaneous psi-events on counters, recorders, photographs or machinery. The primary source of reference is verbal reports of the observer, and this is subject to a multitude of controlling stimuli. The second problem that is often overlooked when one considers the opinions of scientists concerning psi-experiences is that they are also human beings, and are subject to the same laws of social reinforcement and stigma as any other collection of workers. Although we cannot say what they are experiencing, we can infer from

their observable behavior that they probably experience emotions and other private behaviors. They cry at funerals, display frustration-like behavior when something in the laboratory doesn't go according to prediction, and they are wary about unknown things outside their system of understanding. Scientists are people. People dislike talking about uncomfortable topics such as accidents and death, and attempt to avoid even the term as we can see from the many euphemisms, such as "passed over" or "kicked the bucket". Paranormal behavior is intimately associated with death events.

Scientists are subject to social laws of their group as are people in other vocations. They read the published literature in prestigious journals and are influenced by similar "fads" and novel experiments or findings of the time. Most of them would also like to keep their jobs. So they follow the "zeitgeist" or spirit of the times. If you are an experimental psychologist and everyone is studying verbal learning, you experiment with memory drums and nonsense syllables. If you are a biochemist, you delve into research with chemistry of the genes. Whatever is not compatible with the current body of knowledge is ignored. Ball lightning was reported for centuries, but science as an orthodox body did not recognize it. Then plasma physics came along and a few equations were generated which could possibly explain it. Now ball lightning is not such a controversial issue and it is

considered a "real" natural phenomenon. Until the early part of this century, it was considered that rocks or meteorites could not fall from the sky. Those people who reported such were "obviously untrained observers". More data was found. Some equations were derived that were consistent with previous data, and science recognized meteorites as indeed coming from outer space.

Scientists as a collective group are indeed difficult men to convince and one can see how researchers like John Keel (1970) can become disgusted with their behavior. But it was the scientists, and their emphasis on consistencies in nature and upon measuring data, that pulled our species out of superstition and ignorance. They collected data and gleaned the laws of modern science that include electromagnetism, mechanics, gravity. Some were not so lucky in their attempts, such as Richman, who while completing the same experiment as Benjamin Franklin with electricity, was killed by lightning (Powell & Finkelstein, 1969). The point is neither to glorify nor criticize orthodox scientists, but to emphasize that these are men. Men who make mistakes; who are often prejudiced. Men who sometimes hold to science in the same manner as the strongly religious hold to their gods. Men who probably fear things.

What is important is not the opinions, nor the hypothesis, but the data. Regardless of how contradictory it is from the present body of knowledge, we must systematically and in as un-

biased a manner as possible, analyze the data. For it is from the data, the measurable, that the laws of our environment become apparent. Verbal behavior concerning psi-experiences is data; they are measurable responses from people. Perhaps the analysis of verbal behavior on psi-events will be a dead end, and give us no understanding on what or why people state such things. Perhaps it will not in any way tell us about the existence or non-existence of psi-events. In this case, at least one avenue of investigation can be eliminated and we can systematically proceed into some other area.

The second question and criticism is that psi-experiences or paranormal phenomena cannot be studied because they do not fit into modern systems of psychological or experimental analysis. This is not so. Admittedly, we cannot directly study the experience, because it is a private behavior, but we can study the verbal behavior about it. In modern experimental psychology, there is an approach advanced by B. F. Skinner which has been termed "behaviorism". This system frequently utilizes the concept of stimulus (S) and response (R). The stimulus is an environmental event with which is associated some change in the response of an organism. A response is a change in the organism which can be pointed to, enumerated, shown to others, once the conditions have been specified, and shown to be in some lawful relationship with the stimulus. You turn on the light (a stimulus) and your eyes blink (a response). You smile at your girlfriend (stimulus)

and she consistently responds with a head nod (response). You order a beer (stimulus) and the bar tender brings your drink (response). Our social and physical environment can be easily dichotomized in this manner, which is accepted as a legitimate approach by modern psychology. Suppose, however, that the stimulus is an unexpected death of a husband, and the response is the wife's statement "I saw my husband's apparition", and that the two occurred almost simultaneously without the use of known communication devices. Does this change the validity of the analysis or the phenomenon? Not really. We still have a stimulus (death), and response (verbal behavior). Esser (1967) reports that, in the laboratory, a subject's finger blood volume will change (without the subject being aware of it) when in another part of the building a close friend is shown the name of a person with whom both the subject and friend are acquainted. There is no known mechanism (controlling for chance) by which these two phenomena could be related. Yet we still have the essential antecedents required for analysis; a measurable stimulus (showing the name), and a measurable response (change in subject's blood volume).

There is no obligation to understand the physical connection between a stimulus and response before we investigate the relationship. Most of modern research is filled with correlational data. For example, we know there is a high correlation between smoking (S) and lung cancer (R). The exact connection between S and R is not

known, but research still continues. For years we knew that bats would approach an object (stimulus) and, although blind, avoid running into it (R). This did not invalidate nor disqualify the flying behavior of the bat as a legitimate phenomenon of investigation. A frequent criticism of psi-correlations is that significant correlations can be found, due to chance factors alone, between just about anything. This is correct. Significant chance correlations have been found between such mundane events as the number of sermons delivered on a Wednesday and the number of kegs of rum illegally smuggled into the U.S. from Cuba. The critical question is are these correlations repeatable? Chance correlations are not. Psi-correlations with environmental or organismic conditions have been reported again and again. In no way is causality being argued here. Repeated correlations between deaths of loved ones and simultaneous reports of dream sequences descriptive of the death conditions only indicate that the two events are related. Other factors, not readily measurable might also be involved. Establishing a more potent relationship between putative psi-events requires experimental manipulation of the variables involved.

Within the context of the above framework, one might dismiss paranormal verbal behavior merely because, by virtue of their properties, they occur only once. A man dies only once; consequently a simultaneous report of an apparition or a strange feeling can occur only once. Severe accidents with which putative

telepathic events are often associated are rare, perhaps only once in a lifetime. Yet many behavioral events occur only once in a person's life. You are only married for the first time once, you graduate from high school once and you die only once. Science and psychology like to have reversible phenomena which can be produced and eliminated by experimental manipulation. For example, you shine a light on a photocell and electricity is produced; when you turn the light out, the electricity is terminated, etc. Nonetheless, some phenomena are just not reversible. In the laboratory the pattern over time of responses a rat exhibits when he is learning the first time how to press a bar for water occurs only once (Sidman, 1960), but this does not make the study of learning or acquisition any less important. Many behavioral events associated with human beings occur only once. One of the factors that makes them important to study apparently is the number of people engaging in them. Millions of people in the western culture get married, take jobs, and die only once under more or less the same conditions. There is considerable data to suggest that millions of people also report psi-experiences, although often only once, under similar environmental conditions.

The third major criticism and question which is perhaps most closely associated with the controversy over psi-phenomena is the assumption that the phenomena are non-physical. Perhaps this idea was shaped by the popular term 'ESP' or extrasensory perception proposed by Rhine in the 1930s. ESP has the connotation,

although recently Rhine has modified the original definition (Rhine & Pratt, 1957) as involving something beyond the senses. However, there is no reason to assume this. It is just as reasonable to assume that putative psi events involve physical operations of the organism not known to date. There is no reason to assume that the phenomena are non-physical. Many phenomena with mystical or paranormal histories were shown to be merely modifications or extensions of established natural physical laws. At one time it was hypothesized that bats used some type of clairvoyance to avoid objects. This was before we had the technology to measure ultrasonics, sound waves above the perceptible frequency of the human ear, and found that bats were emitting these frequencies in a radar-like fashion. Similarly, progress seems to have been made with dowsing. Although still controversial and far from consistent, there is considerable evidence that certain human beings can detect very small changes in electrical and magnetic fields associated with running water or other conducive objects (Rocard, 1964). Quite possibly dowsing may be brought out of the mystical into the publicly understandable.

Assuming that psi-events are not transitory perturbations in our brains only, and do have stimulus sources outside the organism, the data of science to date suggest they would follow modifications or extensions of physical law. Only patient data collection and analysis will tell the story. To date we can compare our entrance into the world of psi-experiences to that

of a native from a non-western culture approaching an electric fence which is turned on or off by the farmer when his cattle are present. Sometimes the native may touch the fence and be shocked, the severity of the shock being contingent upon his standing in water or on dry ground. He may be shocked attacking the fence with a piece of ferrite, but not with a wooden stick. Sometimes no shock at all may follow when he touches the fence. He might come to realize that there is some correlation between the presence of cows and the absence of the shock. Finally, after attempting to control, or force this painful thing into submission, he may just avoid the area altogether. Without knowing the laws of conduction, insulation, and who is operating the control of the electricity, there is no chance that he will understand. Little is known about the laws that control psi-experiences, or if they really exist anyway. We can attempt to uncover what is controlling people's verbal behavior by isolating the similarities of conditions under which psi-experiences occur. We can start by looking at what people are saying about them. In the very least, it is interesting verbal behavior.

Chapter II

ANALYSIS, LIMITATIONS AND FORMAT

The data presented in this book will be the verbal behavior concerning psi-experiences. Reliability of the witnesses, or if the phenomena could have actually occurred, will not be a question here. There is no way we could establish these circumstances by present scientific criteria. We will instead look at what people are saying about psi-experiences. The cases selected for analysis were 592 written reports which appeared in FATE magazine from 1965 through 1969. The majority of these cases were selected from the two sections termed "True Mystical Experiences" and "My Proof of Survival", with the remaining cases selected from various special reports which appeared in each volume. The only criterion was that the putative phenomenon was experienced by the person writing the report. Those cases which involved second-hand narration were not included.

A valid criticism of the data source is that the reports are popularized and not rigorously verified. This is indeed correct and is a limitation of this study. However, the repeated and striking similarity between the reports in FATE and reports from more "reputable" sources, has impressed this author. We are primarily concerned with discovering patterns of report and experience which can be replicated in the laboratory to increase the

probability of producing a controlled phenomenon. In the final case, what is really important are not the spontaneous patterns, per se, taken from reports, but those stimulus situations that will allow controlled production of the phenomena.

The analysis technique was a modification of the operation analysis method which has been developed by Dr. W. S. Verplanck at the University of Tennessee. Verplanck's operation analysis method is used as an accurate and expedient procedure for analyzing experiments in the behavioral sciences. One of Dr. Verplanck's main points is to place less emphasis on multimeaning cliquish terminology such as "mind", "learning" and "fear" and to investigate what is measurably happening in the environment and to the organism. Interpretative conclusions like "the students were shown the lesson and learned the material" tells us nothing about how the material was presented, the environmental situation, or even what is meant quantitatively by "learned the material". Verplanck's method emphasizes that the environment can be divided into stimuli which are associated with measurable movements or changes in a living organism's behavior. The various ways that the organism, e.g. rat, lizard, or man reacts will depend upon the manner in which the stimulus or stimuli are presented, the behavioral-genetic history of the organism, and the present physical environment. For example, the stimulus may be the single presentation of a 'Playboy' fold-out, or several presentations of constant duration with specific time intervals between them. The specific stimulus pattern is reported.

The history of the organism, such as with a human subject, includes his genetic characteristics, his early training, religion, schooling, and the many, many factors in a person's past that contribute to his individual behavioral patterns. The present environment involves such factors as social, weather, geophysical and internal conditions; the latter including hours of food deprivation, physiological occurrences, etc. All of these factors may contribute to the consequent change in behavior. The response of the organism to the stimulus complex is also viewed in terms of the specific response measured, i.e., movement of the hand, vocal response, crying, facial expession or a physiological change, all of which can be quantified and enumerated once they have been pointed out to the observer. His analysis technique is perhaps the first step in the analysis of psychological experiments and phenomena, not in terms of theory or interpretation, but in terms of what is measurably occurring in the environment and organism.

Operational-Analysis of Psi-Verbal Behavior.

In 1969, while the author was a graduate student at the University of Tennessee, it became apparent that an upsurgence of interest in psi-experiences was beginning. Most books were of the sensational-type, reporting merely a series of "wierd" or "stranger-than-science" cases. Indeed it was men like Frank Edwards, DeWitt Miller, and others who started the format for a deluge of later texts. Such cases as a farmer saving his crop by removing

it from a grain bin because he had previously dreamed that it would burn down, or a woman seeing the bloodied apparition of her son in battle thousands of miles away, were prevalent. Consequently, it was decided to analyze the verbal behavior concerning psi-events by modifying the Verplanck operation analysis technique.

A copy of the analysis sheet is presented in Table 1, Section 1.0, which incorporates the traditional headings for the putative phenomena reported in a given psi-report. These included clairvoyance, precognition, telepathy, apparitions, astral projection, along with minor or infrequent classifications such as strange forces or sensations. The operation head, designed as 1.1, referred to the symbol or classification that the analyzer used. It was felt that in some cases, many phenomena would best be described not in the usual terminology or classifications, but in a manner involving the stimulus operations of the environment. Many cases of telepathy and clairvoyance both involve the occurrence of some stimulus which the percipient (reporter) in some manner responds to by mechanisms or means not known to date. In the case of telepathy, the putative stimulus appears to be a human being in a stressful or traumatic situation while the clairvoyant situation apparently involves a particular object as the stimulus. The object may be hidden or have characteristics which the reporter could not know by ordinary means. However, in most cases the object <u>is</u> known by other human beings, so the possibility for some paranormal involvement from human ("telepathic") sources must be considered. Consequently

Table 1: ANALYSIS SHEET FOR PARANORMAL PHENOMENA

1.0 Trad. Head _____ 1.1 Head _____

2.0 Source _____

3.0 Time _____

3.1 Zeitgeist _____

3.2 P_{onset} _____ 3.3 P _____

3.4 Duration _____

4.0 Area _____

4.1 Specific _____

4.2 History _____

4.3 Geo-Meteorological Effects _____

5.0 O Dis. _____

_____ 5.1 Ss _____

_____

6.0 Antecedents of P

6.1 O's Behavior _____

6.2 S's Behavior _____

7.0 During P

7.1 O's Behavior _____

7.2 S's Behavior _____

8.0 Post P

8.1 O's Behavior _____

8.2 S's Behavior _____

6.7:8.3 Geo-Meteorological Effects _____

9.0 The Phenomena (P) _____

_____

_____

_____

Comments:

the stimulus operations of what has been termed clairvoyance and telepathy may be similar. Both conditions are associated with a reported change in the percipient's behavior following the paranormal presentation of a stimulus. In one case ("telepathy") the stimulus predominantly involves another person, while in the second case ("clairvoyance") it predominantly involves an object. The symbol $\{S'\}$ can be used to denote that the event in question is a tentative paranormal stimulus. The statement, $\{S'\} \longrightarrow \{R_v\}$ simply indicates that the presentation of $\{S'\}$ is associated with a response, in this case a verbal response. Verplanckian analysis allows the pattern of the stimulus presentation to be notated, as well as the response characteristics. However, the above relationships are presented only as examples; their rationale and logic will not be discussed in this book.

Section 3.0 deals with the time of the phenomena, the month, day and year; "Zeitgeist" or spirit of the times (3.1) was included as an ancillary category for later consideration of the data since upon retrospect, it is often important to point out the political-social context at the time of the report. Were there, for example, a high frequency of UFO "flaps"; was a war in progress, international crisis or natural catastrophies, e.g., earthquakes, tornadoes? The specific time of onset of the phenomena was reported in 3.2 and the offset in 3.3, while the total duration or <u>number</u> of repetitions of the phenomena is considered in 3.4. The spatial coordinates of the phenomena were reported in 4.0 and 4.1, the

former category for recording the city, street, state (province) or country, while the latter category referred to the specific part of the house, e.g., the bedroom, kitchen, hallway. The history of the house (area), if reported, was logged in 4.2. Often some particular event in the past, such as a death or accident, seems to be from some points of view at least, related to the phenomena. A frequent explanation, for which little data has been collected, is that psi-events are "earth movements" or "settlings of the house". To account for this possibility, the contribution of geological or climatological characteristics of the area were recorded in 4.3 Analysis of these characteristics required additional data sources.

O refers to the reporter or percipient of the putative psi-event. In the 5.0 category everything available from the report about the O was recorded, including age, sex, family background, belief in the "supernatural" and similar aspects of behavioral history. Ss, noted in 5.1, referred to the subjects about the O at the time the phenomena occurred. Previous investigators have suggested presence of certain age groups or sexes, e.g., children in pubescence (Owen, 1964) being highly correlated with the onset of a psi-experience in another person. In 5.1 the sex, age and relation (e.g., mother, father, etc.) of Ss, (people, animals) in the house or in the vicinity to the O were recorded.

One consistent report by researchers and experimenters in the area of paranormal behavior has been the reported change of a person's emotional behavior or feelings either before, during, or

after the onset of a putative psi-event. In categories 6.1, 7.1, and 8.1, the behavior of the O reporter was specified. Did the O report his, or herself as being asleep, anxious, apprehensive, etc. before, during or after the reported experience? Similarly, the behavior of the Ss before, during or after the phenomena are noted in 6.2, 7.2 and 7.3. Geophysical or meteorological conditions, when available, were presented in 6-7-8.3 and included both usual (rain, sunny), or unusual (lightning storm, earthquake, tornado) geo-meteorological events. The phenomena itself (P) was extensively recorded in 9.0. Special attention was given to the specific words used by the reporter such as "I felt peaceful"; "I felt uncanny"; or "I felt a 'tingling' sensation". The exact phraseology used to describe the phenomena was also recorded. Finally, under "Comments", any incidental was mentioned that the analyzer considered as a possible event noted in the report which might have contributory psychological or physiological consequences. These events included death of a friend, (where this event was not involved with the phenomena), or consequent events, such as the dream event actually occurring (according to the reporter) some days later.

Sample Analysis of Psi-reports.

Report I.

This report was published in FATE, volume 18, 1965, pages 92, 93 and 94. An analysis of the verbal behavior is presented in Table 2.

"On the evening of August 3, 1948, my husband, John E. Jacoby, lay in a coma in Queen's General Hospital Jamaica, L.I., N.Y. I had come from our home in Woodhaven for my usual visit at his bedside only to be told by his doctor that the end was near. The doctor advised me to leave the hospital. He said there was nothing more I could do. When he promised to telephone me if John's condition changed I left.

I couldn't sleep that night. At 2:45 A.M. I felt a presence and my husband appeared before me.

He said, "Honey, I am leaving now. The 'old goat' is no longer useful. I'll watch over you and our Little One (our daughter) always."

I sat dazed, expecting the hospital to call. However, it wasn't until seven hours later, at 9:00 A. M., that the call came requesting me to come to the hospital.

After attending to some of the details at Queen's Hospital I asked to see my husband's ward doctor. He asked politely if there was anything he could do for me and I said, "Yes, I would like to see my husband's chart."

"It's against hospital rules," he said, "Why do you wish to see it?"

"I would like to verify the hour of my husband's death, " I replied. "I believe he died at 2:45 A.M. although the hospital didn't telephone me until 9:00."

The doctor called, "Nurse, please bring Mr. Jacoby's chart."

He pointed to the time of death ....2:45 A.M.!

"Thank you, Doctor," I said.

My eyes filled with joyous tears. It was not a dream! I had experienced proof of survival.

As I was leaving, the nurse spoke to me, "You knew, didn't you, the exact time your husband's soul left his body?"

"Yes," I said.

She answered wistfully, "I hope to experience a proof of survival someday." - Los Angeles, Calif.

Report 2.

This report was published in FATE, Volume 21, 1968, page 56. An analysis of the verbal behavior is presented in Table 3.

"In the living room of our house in Moline one Friday morning in May, 1965, I was waxing the floor. Humming a tune I worked away on bended knees when suddenly from nowhere I heard a voice calling me, as if in pain.

"Mom! Help, Mom!" The voice was filled with fear and I was terribly disturbed. It was the voice of my 18-year-old son, Douglas K. Etheridge, who was in the navy on the U.S.S. Grand Canyon out of Newport, R.I.

I rushed to the front door looking for him. He was nowhere to be seen. I asked the children playing in the yard--my daughter Jeanne and some neighbor children-- if they had heard someone call me. They said no.

When I told my husband James about it that night he said my imagination was working overtime. We hadn't heard from Doug for several weeks so my husband told me to call him if we didn't hear in a few days.

The following Tuesday I had a letter from Doug

Table 2: ANALYSIS SHEET FOR PARANORMAL PHENOMENA

1.0 Trad. Head Telep-Clair. (Apparition-Post mortem) 1.1 Head _____

2.0 Source FATE 18(9):92-94.

3.0 Time August 4, 1948

3.1 Zeitgeist --------

3.2 P_{onset} 0245 3.3 $\bar{P}$ NR

3.4 Duration secs

4.0 Area Woodhaven, N.Y. (O')

4.1 Specific bedroom

4.2 History NR

4.3 Geo-Meteorological Effects NR

5.0 O Dis. female

5.1 Ss $S1^{A'}$, husband, in hospital L.I., N.Y., S2 daughter

6.0 Antecedents of P

6.1 O's Behavior couldn't sleep, just home from hospital

6.2 S's Behavior A' in coma, S2, NR

7.0 During P

7.1 O's Behavior felt presence, then P

7.2 S's Behavior A' dying, S2, NR

8.0 Post P

8.1 O's Behavior NR, found out later that A' died by call at 0900 from hospital

8.2 S's Behavior NR

6.7:8.3 Geo-Meteorological Effects NR

9.0 The Phenomena (P) Ap (A') appeared before her and said "Honey, I'm leaving now--the old coat is no longer useful--I'll watch over you and our Little One always".

Comments: O reports she checked with hospital for exact time of death

Table 3: ANALYSIS SHEET FOR PARANORMAL PHENOMENA

1.0 Trad. Head Telepathy-Clairvoyance (Crisis) 1.1 Head ---

2.0 Source FATE 21(7):56

3.0 Time May 21, 1965

3.1 Zeitgeist --------

3.2 P_{onset} morning 3.3 P NR

3.4 Duration secs

4.0 Area Moline, Illinois (O')

4.1 Specific living room

4.2 History NR

4.3 Geo-Meteorological Effects NR

5.0 O Dis. female (mother of A')

5.1 Ss $S1^{A'}$; S2 husband, others NR

6.0 Antecedents of P

6.1 O's Behavior waxing floor, humming, suddenly P

6.2 S's Behavior A' in boiler room of ship, off Newport, R.I., others Ss NR

7.0 During P S2 office (?)

7.1 O's Behavior heard voice (see P)

7.2 S's Behavior A' slammed against wall during explosion of boiler

8.0 Post P

8.1 O's Behavior "terribly disturbed"--rushed to door to look for son

8.2 S's Behavior told S2 when he came home that night, S2 said forget it

6.7:8.3 Geo-Meteorological Effects NR

9.0 The Phenomena (P) heard voice "Mom, Help Mom", voice was fearful" O knew it was son

Comments: received letter from son four days later in which son described barely escaping being killed by boiler explosion

and my hand trembled as I opened it. It was dated May 22, 1965, the day after my frightening experience. He wrote: "...I'm fine, but things could be better. Yesterday the boiler in the engine room blew and a good friend of mine got hurt really bad. He has third degree burns over 60 percent of his body... When it happened I got out of the hole fast. It about blew my head off my shoulders and slammed me against the wall. My buddy wasn't so lucky; he was on a lower level..."

Now I knew why I heard his troubled voice calling me--across a distance of 2300 miles." - Moline, Ill.

Limitations of this approach.

As stated in Chapter I, there is a primary limitation to any generalization or conclusion that may be derived from the data analyzed in this book. Essentially we are dealing with a measuring device which can be influenced by a multitude of variables ranging from legitimate external occurrences to potentially pathological behavioral patterns. At present all that can be stated is people say certain things about what they and others consider as "peculiar", "supernatural" or "mystical". A factor which must not be forgotten is that the cases are published in a very popular magazine, and in addition, a picture of the reporter is often shown. That public

recognition and attention are potent influences upon human verbal behavior has long been established. Under the influence of such important social reinforcers as attention, the contribution of confabulation and misinterpretation to the recall of the experience must be considered.

There are also several secondary limitations of this analysis approach: 1. sample biasing; 2. insufficient data; 3. no specific criterion for selection. In any sample of cases, the generalization of the results is restricted by the possibility that the results may pertain only to the sample investigated. Although the number of cases analyzed was 592, there is the strong possibility that any patterns or general trends which seem evident may be applicable to these cases only. A variety of factors could contribute to this limitation. For example, perhaps only certain "personality types" report their experiences to FATE; these types as a group may report experiences which are quite atypical from other groups in our population. This limiting factor may be further exaggerated by the possibility that only certain types of people have bought FATE and only certain parts of the country distribute the magazine.

Despite the amount of information which might potentially be differentiated with the paranormal behavior operational analysis technique, an intrinsic limitation is in the cases themselves. As was found, much of the headings on the analysis sheets were not filled in simply because this information was not reported. Conse-

quently any results, patterns, or trends noted could be due to chance or some factor involved with people who do report the information. In many cases, there are a very small number of cases where a certain variable, e.g., age, time of day, is reported; any trend may be due to chance or some peculiarity of the small sample. The point is that in all these situations, the generalization or reliability of any consistencies in the data might not be valid or reliable. One way to strengthen the generalization capacity of the results reported will be to compare them with results collected under "more controlled" conditions, or "more rigid" criteria. It is interesting to note that the results in this study show remarkable similarities to other studies. The implications of the relationships will be considered in Chapter 9. Another limitation of this study is that no attempt was made to determine the behavioral background of the reporter. There is no way, from the reports, that we can accurately surmise if he displays any clinical pathological symptoms, including hallucinations, delusions, or enhanced suggestibility. It is assumed by the author that even if we could establish the reputability of observational ability of the reporter that we could not necessarily rule out infrequent transient changes in brain chemistry, abnormal brain electrical events, or behavioral peculiarities in specific situations. Even a Ph.D. in physics or psychology does not always guarantee that the scientists will approach the experience of a death apparition of his dad with the same rigor as he would a problem in the labo-

ratory. Critical training in one aspect of life may not be generalized to the personal and private behaviors of an individual.

Students who have taken the author's courses in paranormal behavior and "experimental parapsychology" have repeatedly pointed out that this approach does not prove the existence of psi-events. This is correct. But there is no way we could prove, according to the current criteria of science, the existence of psi-events from people's reports. Outside of mathematics, some scientists would question the meaningfulness of the word "proof" anyway. If anything is ever to be understood about psi-events, they will have to be brought into situations where they can be experimentally manipulated, or understood, from a body of equations or data that are integratable and compatible with the established laws of nature. Modern scientific disciplines meet this criteria. The phenomena of physics, chemistry and psychology can be measured in the laboratory. Meteorological events, on the other hand, by virtue of their expansiveness, cannot be replicated exactly in the laboratory. Their behavior can be predicted, however, from the phenomena of physics and chemistry.

By looking at the verbal behavior about psi-events, we cannot prove them, but we may be able to establish consistencies about the events in the environment and organism which precede (or come after) the psi-experience. Once these consistencies or patterns have been shown in the verbal behavior of people who report they have such experiences, we can replicate them in the

laboratory and attempt to manipulate the variable in a fashion which is acceptable to the criteria and techniques of modern science. For years a common report is that psi-experiences seem to occur more often in the dream state. Despite this evidence from verbal reports on "spontaneous events", that is, events that did not occur in the laboratory, emphasis was still placed on establishing psi with standard stimuli, such as the Zener cards (decks of cards containing five different symbols). Although this is a legitimate alternative approach to investigating psi, for years it was subject to procedural difficulties. It was not until the late 1960s that Dr. Stanley Krippner and Dr. Montague Ullman published their work on what was termed "the successful 'telepathic' exchange of information" between two individuals when one of them was in dream sleep. Certainly, these results must be replicated in other laboratories before further comment can be made, but this is the approach the author is emphasizing. First, let's look at the data as it occurs in the everyday reports from the "man-on-the-street". Let's see what he is saying. Second, let us take the consistencies and trends of antecedent conditions of the reporter's emotional, behavioral, physical environmental, sociological and perhaps even his physiological responses into the laboratory and attempt to replicate the verbal behavior there. Once this verbal behavior is replicated under specified conditions, we may then be able to measure the psi-event with other more reliable measuring devices. It is quite conceivable that when scientists isolate the stimuli with which is associated the response, "I see

an apparition", that some physical change in the reporter's environment might also be measurable.

Format of the Book.

In consequent chapters, verbal behavior concerning psi-experiences from the FATE magazine cases have been divided into various topics according to response patterns. Chapter III deals with the difficulties associated with the usual definitions of telepathy and clairvoyance. This discussion is followed by the comparison of the data with information from other sources. Chapter IV integrates the verbal descriptions of environmental-organismic situations at the time of the experience with what has been reported in recent laboratory electro-physiological studies. The contribution of certain geometeorological stimuli to certain telepathy-clairvoyant experiences is suggested. Chapter V deals with putative "time distortions", classically referred to as "precognition and retrocognition". Data analysis and comparisons with other sources are presented followed by both normal and paranormal explanations of these reports.

In Chapter VI, the problem of "apparitions" is considered after a short discussion. Detailed analysis of the descriptions of "apparitions" is emphasized followed by comparisons with other classic works on the topic. Chapter VII deals with the phenomena that has been called "astral travelling", "near-death-experiences", or more recently, "out-of-body experiences". Information is given

from other studies and compared with experimental data on the topic. Chapters VIII and IX deal with other post-mortem reports and unusual reports. These chapters contain the remaining reports of the analysis which do not, according to the reported stimulus or response patterns, meet the criteria of other classifications. Chapter X compares the various spatial, temporal, and organismic characteristics of the different types of cases noted in this book, emphasizing their apparent differences and similarities. In Chapter XI a short summary and conclusion are given.

In the results section of each chapter, chi-square (X^2) and probability values (p) are sometimes given. These values are optional and should not "worry" the uninterested reader. They are not presented as "proof that the phenomena exists. They have been presented to give the interested reader some idea of the statistical nature of the differences in report content and were applied to situations where there were a large number of samples. Briefly, the chi-square test is a procedure for comparing observed frequencies of an event (the psi-report) relative to theoretical frequencies of the event. The value X^2 is a measure of the discrepancy between the observed and theoretical frequencies. The "p" value or probability value tells the reader the percent likelihood that the observed discrepancy in frequencies is due to chance. For example. suppose 100 cases of reported apparitions are analyzed with respect to their occurrence in the day time or night time hours. We would expect that if only

chance is the critical variable, 50 reports would occur at night (12 hours) and the remaining 50 during the day (12 hours). If we found in our data that only 10 cases were reported to occur during the day and the remaining 90 were reported to occur as night time experiences, the resulting chi-square value would be roughly 64.0 and the probability value p would be much less than .001 (the calculation of X^2 can be found in any elementary statistics text). This probability value indicates that in only one out of a thousand analyses would these differences be due to chance alone. Consequently, we can assume that some other variables (normal or paranormal) are contributing to these frequency differences.

Chapter III

TELEPATHY TERMINOLOGY AND CLAIRVOYANCE

Introduction

In popular terms, telepathy is the "reading of another person's mind", while clairvoyance has been described as "knowing where lost or hidden objects are placed". Drs. J. B. Rhine and J. G. Pratt in their classic text Parapsychology (1957) define telepathy as "extrasensory perception of the mental activities of another person", and clairvoyance as the "extrasensory perception of objective events as distinguished from telepathic perception of the mental state of another person". The key to their definitions is the use of the term extrasensory perception (ESP) which is described as "awareness of or response to an external event or influences not apprehended by sensory means". Later works such as Rao's Experimental Parapsychology (1966) define these terms in a similar manner.

These terms have sufficed to allow people to communicate in a general way about experiences that can be termed as telepathic-clairvoyant. In an analogous manner, each of us has some idea what the other person "means" when he says "I love my wife" or "I feel sad". These are general terms that produce more or less standard responses in each of us because, being in the same

culture, we share a repertoire of similar experiences and conditioned responses acquired during infancy, childhood and adulthood. This is one type of language -- the everyday language, where specific terminologies are not required. The main objective of everyday language is to communicate to another person and bring about some predictable change in another person's behavior. Another example is the "small talk" of the anecdotal conversation: "Mike: 'Hi Joe, how do you feel', to which Joe replies, 'Oh, I feel a little low today, the wife is jumping on my back again.'". Certainly, most of us could understand the "meaning" of this conversation and respond in some culturally appropriate manner to it.

Science requires another language; a language which is precise and refers to measurable events in the environment and of the organism. It is extremely difficult to measure a "feeling", or to see how "low" a person is when he reports that he feels depressed. The use of the imagery concerning the wife gives some element of information in everyday language. Measurably, however, the wife is not jumping on Joe's back. Similarly, "mind", ESP, "reading one's mind" are words and phrases that can produce some predictable response in another person. If you say to another person "what is a mind?" he will usually respond in some predictable manner and you would probably conclude that he knows the "meaning" of the word. But such things as "mind", "love", "emotion", or ESP,

cannot be measured. They are constructs or words used by most people to describe a large series of private behaviors (or subjective experiences) for which cannot be found a precise label. Often we label such experiences with metaphors such as "like butterflies in the stomach" or "like floating on air". The reasons for this type of behavior are best discussed in another text. The point emphasized is that some words do not have any consistent measurable event associated with them. To state that "mind is myself" or "love is a warm bed" also does not really describe much about anything. These words are essentially general responses to a whole complex of private stimuli occurring within the human being.

What we do see is behavior. A response, the unit of behavior, is some measurable movement in the organism. A response can be a movement of the hand, eyes, or just talking. When a person says "how do you feel?", you are responding to his vocal behavior. When another person says "I feel bad today", all one can really measure is the verbal statement, which incidentally may be merely a convenient response available to him from his previous conditioning and upbringing and have little to do with what he is experiencing internally or privately at the time. The common argument is that merely stating that any change in behavior is a consequence or precedent of some stimulus in the environment -- be it outside or inside the skin of the organism, is no different than using the term mind as an answer to the cause

of behavior. However these two words do not have similar properties. By using the term mind, we can barely go beyond the point of the statement "he read my mind". By measuring behavior in terms of measurable environmental events, we can make precise statements about how much change there is in a response as a function of the changing stimulus in the environment. We can also find in what systematic fashion a stimulus is responsible for the change in a behavior. When a person is said to have ESP in the Rhinean sense what should be stated is that some measurable response change (vocal responses such as "I saw an apparition" or "I think the hidden card is a star") is associated with the presentation, somewhere, of a stimulus. What we are dealing with are measurable changes in behavior and the environment. Instead of using secondary terms such as ESP which refer to diffuse and non-measurable terms like mind, we could learn more about the phenomena by talking about it in terms of the measurable changes in the environment and organism. Consequently, in terms of operations or changes in the environment-organism, telepathic behavior could be defined as the reported acquisition of another person's private behavior ("thoughts") by operations of the organism and environment not known to date. Similarly, clairvoyant behavior could be defined as a response of the organism associated with some event or object and seems to involve operations of the environment-organism not known to date. The change can be a vocal response "I know that the object is hidden in the drawer", when the individual could not

have known this information using known sensory stimuli or operations. The response might also be some measurable physiological change, of which the human being may not be "aware", but is nonetheless associated with some event or object. The stimulus event could be another person in a traumatic situation. An example of possible clairvoyant behavior in the laboratory was reported by Duane and Behrendt (1965). They found, in some pairs of twins, electrical changes in one twin were similar to electrical changes induced in another twin some distance away by a painful stimulus.

Traditionally the difference between clairvoyance and telepathy has been that the latter involved "thoughts" of another person while the former involved objects or events. Since we can only measure "thoughts" by a person's vocal or written behavior, it is more accurate to define telepathy as the reported acquisition of another person's private behavior. The distinction between telepathy and clairvoyance is probably an arbitrary one, initiated by the early researchers who still adhered to a differentiation between "mind and body". Later researchers (Rhine, and Pratt, 1957; Rao, 1966) refer to the term GESP or General Extrasensory Perception which is defined as situations where both telepathy and clairvoyance are allowed to work. In terms of operations of the environment-organism, there may be little difference between the two.

People on the street and in the classroom are less likely

to be familiar with the terms paranormal behavior, telepathic behavior, or clairvoyant behavior, than they are with the term ESP. Why not leave the term ESP instead of introducing some cumbersome phrases or definitions? The major problem is that the term ESP, as does "mind", has certain connotations associated with it. The connotation associated with the term ESP is that it is not physical. Rhine stated that ESP did not use sense organs. To the scientist, this implies that the phenomena are not physical. That which is not physical is not measurable, and that which is not measurable in some manner is not a part of science. The connotations of a word may affect our response to it, often in very subtle ways. In this culture, a government official may be called a statesman or a politician. With "statesman", images such as honesty and wisdom are evoked, while with "politician" there are the subtle associations of a person who manipulates, is dishonest and talks a lot without saying anything. Connotations of a word can influence the acceptance or rejection of an area of study by science.

An apt case is the history of hypnotism, as described by E. G. Boring in his text History of Experimental Psychology (1957). Scientists once completely rejected what is now called hypnotism because of the unscientific associations of F. Anton Mesmer and the term mesmerism. Mesmer (circa 1784) insisted that magnets were involved with certain behavior changes which were noted in his patients. When a scientific committee investigated this new discovery,

they found that similar behavior could be induced without magnets and that Mesmer's "animal magnetism" bore little similarities to the magnetism of metals. If Mesmer would have admitted that he had discovered a phenomenon which really did not require magnetic fields but close contact of human beings and the display of certain words, the committee investigating him would have probably been just as impressed. Instead, even though the committee demonstrated that the magnets were not required, he insisted that there was magnetism from his body and later the stars. We will never really know the total impact of the committee's dismissal of Mesmer's results on the later development of Science's point of view to both biomagnetism and suggestion (hypnotism). At various times during the 18th and 19th centuries attempts were made to reinstate it as a legitimate area of research. But with each time the connotations of mesmerism such as charlatanism, "hocus pocus" collusion and other non-scientific associations were evoked. It was not until James Braid in 1841 demonstrated the phenomenon in front of his medical colleagues in context of theories of the day and changed the name of the phenomenon to hypnotism that his fellow scientists became at least somewhat interested. For with the new term hypnotism were not mystical connotations, but reputable scientific ones. Perhaps we can learn something from James Braid. If we want our scientists to become interested in parapsychology, maybe we should change the name of the phenomenon and talk about it in terms of the theories of the day. Today we find out things

about nature by measuring it and talking about it in physical terms. These are concepts a scientist can handle. After all, it will be probably the chemist, physicist and physician with their money, equipment and techniques who will discover the essentials of paranormal behavior. The history of science seems proof of this.

Unfortunately the term ESP has done a similar thing to the study of paranormal behavior that mesmerism did for hypnotic behavior. Consequently, scientists who might very well have made important contributions to this area, have avoided it. Many of the interests of scientists are shaped in graduate schools where the master's and doctorate degrees are obtained. For example, while in various graduate schools of psychology I have seen dozens of potential researchers of psi-phenomena told by their major professors not to study this area. Sometimes the suggestion is a bit more subtle such as a suspicious smile over the rims of the professor's glasses. Many of these same men, after they have exhausted the usual stock phrases of "ESP is hog wash" or "telepathy is not scientific", finally admitted that they really did not know much about the area anyway. When they were confronted with the possibility of paranormal behavior being replicated in the laboratory and that very few scientists have ever really tried it, they usually retorted "I'm not interested besides my major professor did not think it was worthwhile". And so the cycle repeats itself and "what is relevant to study" is passed on from

academic generation to generation in psychology. One wonders how many students, with interests in unorthodox but potentially relevant areas of human behavior, are behaviorally extinguished in our modern universities and graduate schools.

ESP or paranormal behavior? The discussion on the choice of terms is most apt for the chapter on telepathy-clairvoyance since these phenomena have born the brunt of criticism -- legitimate criticism -- from men like C. E. M. Hansel (ESP- A Scientific Evaluation, 1966). It seems unfortunate that the success or failure of a field of research should rest upon the connotations of its name. But this is one aspect of human scientists' behavior. Instead of lamenting about it, we, as layman and scientists interested in psi-phenomena should modify our verbal behavior. We are dealing with paranormal behavior. So let us call it that. By calling it paranormal behavior, we do not mean the behaviors are necessarily any different from normal behaviors. The autonomic responses associated with a telepathic event might also be produced with some normal stimulus. The verbal response "I feel apprehensive" might just as easily be associated with a known stimulus pattern in the organism's immediate environment. Paranormal behaviors differ from normal behaviors in that they seem to involve relationships between stimuli and responses or operations of the organism-environment not known to date.

Examples of reports from FATE magazine that seem to involve possible telepathic or clairvoyant behavior are presented below.

Report I.

FATE 22 (12), 1969:68

"Nothing seemed unusual about the evening of January 5, 1969. I was visiting in my kitchen in Coos Bay, Ore., with my sister-in-law, Mrs. Bud Arnold, and her friend, Ruby Kirbs, hot coffee steaming in cups before us. I had no feeling of impending disaster, no sense of inner disturbance, until suddenly my face flushed and I felt ill.

I excused myself and went into the bathroom to run cold water over my wrists and bathe my hot face. Feeling better soon, I returned to the table -- but in a matter of minutes I was out cold. My sister-in-law told me later they carried me to the daveno and placed a cold cloth on my forehead. Then she said I opened my eyes and simply stared into space. I don't remember this -- or anything else, for that matter. I must have remained this way for 15 minutes, we later decided, and when I came to the time was exactly 10:30.

Next I was deathly ill. I vomited many times that night, between snatches of restless sleep.

Each time I awoke I felt like crying and several times I did. I kept thinking of my mother, Sharan Shaw, who lived in Chemult, Ore., 200 miles away. For no sane reason, thoughts of her brought a terrible depression.

The next morning at seven o'clock Mother called me. She had been crying and was extremely upset. She told me that my sister Barbara had died the night before in Spokane, Wash. - at exactly 10:30 - Coos Bay, Ore.

Report 2.

FATE 22 (4), 1969:49-50

"One Saturday in the fall of 1955 a strong feeling came over me that I should visit my friend Jane Bartelman at once, instead of the following evening as we had planned. We lived only a few blocks apart in Washington, D.C., but it was raining and I had

little inclination to go out.

But the feeling nagged at me. "I'll phone her," I told my unseen taskmaster. The peremptory answer came, "Don't phone! Go. Go NOW!"

Reluctantly I dressed for the inclement weather - sweater raincoat, umbrella - and at last I was outside. Now actually on my way I no longer felt the urgency. Six blocks to walk in a pelting rain! What had gotten into me anyway? My steps slowed and I sheepishly thought of turning back. However, my tormenting prompter still was on the job. "Hurry, hurry!" So I hurried.

Fortunately the way was all downhill. Taking advantage of every step-saving shortcut I soon was pushing open Jane's small iron gate. Ordinarily the gate's creak would have set her two dogs into a wild clamor. Now all was silent, even after I twisted the old-fashioned doorbell.

"What a wild goose chase," I muttered. "She isn't even home."

"Rap!" came the command. I rapped and then removed my glove to knock with my ring against the glass. Still no answer.

"Again!" I knocked once more. This time the curtain was plucked aside. White of face and haggard-eyed Jane was trying to turn the lock.

"Oh, I'm so sick," she gasped, at last opening the door.

One sniff was enough.

"It's gas!" I cried and leaving the door wide open I held my breath and rushed to the water heater in the basement to turn off the gas cock I knew to be defective.

Thanks to some unseen force, I had made it in time. - Harpers Ferry, W. Va.

One hundred and sixty-four (164) cases were classified under the heading of putative telepathy-clairvoyance (T-C). Tentative paranormal perception of situations that involved living stimuli occurred in 65% (106) of those reports while the remaining 45% (58) seemed to involve inanimate objects as the main stimuli.

The monthly occurrence of T-C events are reported in Figure 1. Only 102 of the subjects gave the specific month while another 27 reported the season. The remaining 37 reporters did not specify the time coordinate. As can be seen from Figure 1, there is a slight trend for the time of the 'phenomena' (P) to occur in the summer months and less during September and October. If the 12 months are divided into the seasons: spring, summer, fall, and winter and added to the reports that specified only season, then a definite summer trend of occurrence is apparent. Spring, summer, fall, and winter occurrences of reported T-C events were 22% (28), 40% (51), 13% (17) and 25% (31), respectively.

The chi-square value for these differences was 20.1 ($p < .001$), indicating that the probability of these percentage differences between seasons being due to chance occurrence is less than one in a thousand.

The time of day during which the 'phenomena' (P) are

supposed to have occurred is shown in Figure 2. In this figure the 24 hours in a day are divided into two hour segments and the number of putative telepathic or clairvoyant events reported in each segment is specified. It can be seen that beginning about 20:00 - 21:59 hours (8:00 P.M. - 10:00 P.M.), there is a rapid onset of reported occurrences which peak at 02:00 - 03:59 hours. A total of 51 subjects reported the specific time while 91 subjects referred to day or night as the occurrence time. Twenty-two (22) reporters did not give any time indication. Of the 89 who only specified day or night as the time of occurrence, 70% (63) noted it was night. If the data of specific times is included and we designate 08:00 - 19:59 as day and 20:00 to 07:59 as night, then 85% (112) of the 144 day-night reported cases took place during the night time hours ($X^2 = 60.4$; $p < .001$).

Area (4.0-4.3). One hundred and twenty-seven (127) T-C reporters gave detailed information concerning their geographical location at the time of the experience. Of these 114 took place in the United States. In 90% of the cases, the address of the percipient (O') at the time of the report publication was in the same area as the T-C experience. A geographical distribution of T-C reports was made according to the nine state regions: New England, Middle Atlantic, E. North Central, W. North Central, South Atlantic, W. South Central, E. South Central, Mountain and Pacific. A chi-square analysis between the observed number of

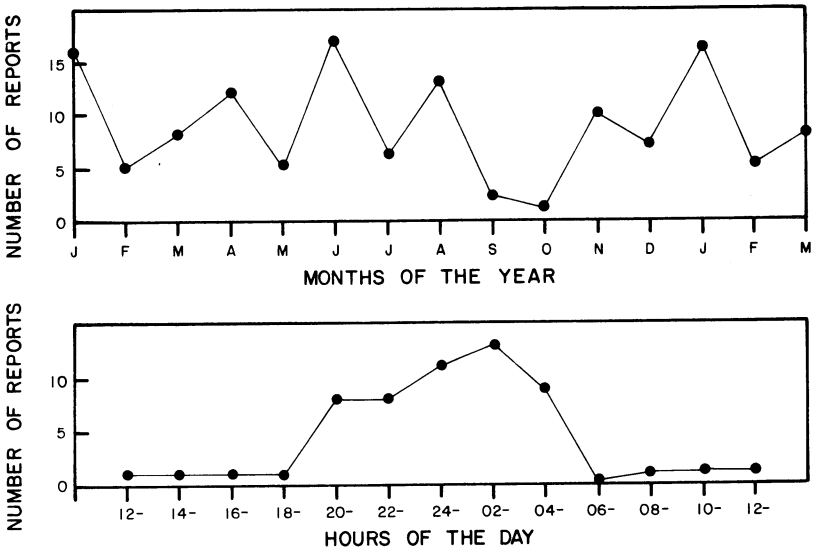


Figure 1. Number of reports of putative telepathic-clairvoyant (T-C) events as a function of the reported month of occurrence.

Figure 2. Number of putative T-C occurrences as a function of the time of day of the "experience". Each data point indicates the number of cases per two hour period, i.e., 12- includes the reports between 12:00 P.M. and 1:59 P.M., etc.

T-C reports per region and those expected per region based upon population density produced a highly significant value of 27.54 ($p < .001$). This indicated that the likelihood that the differences in T-C reports between regions was simply a consequence of differences in regional population density was quite low. There was still a significant ($X^2 = 21.72$; $p < .01$) but weaker difference between observed T-C reports and those expected from FATE distribution numbers. The probability of this difference being due to chance is less than one in a 100. However it should be mentioned that the statistical significance was due primarily to the Mountain region states. There the number of T-C reports was 403% greater than the number expected due simply to FATE distribution numbers. Further, this excess was due only to the large number of reports originating from the Salt Lake City, Utah area. If reports from this region are eliminated, there is no significant difference between the number of T-C reports in the nine regions and those expected from circulation availability.

The specific area in which the 'phenomena' was experienced was reported by 148 subjects. For analysis, the specific areas were divided into the home, public places, and outside areas. In the home, 73% of the cases occurred, while outside areas took up 20% of the reported total cases. Only 7% of T-C events supposedly took place in a public area. The vast majority or 82% (89) of the reported events in the home took place in the bedroom or sleeping

area with the kitchen and living room tallying 9% and 7% respectively. Remaining areas of the house were included in less than 2% of the reports ($X^2 = 190.0$; $p < .001$). Public places included stores (4), churches (2), an office (1), etc. Examples of specific outside areas were a highway, near a barn, in the forest and in the backyard. With respect to other outside areas, 23% (7) were reported to occur near ocean-river areas. In only two instances was information on the history or geo-physical-meteorological characteristics of the area noted. Similarly, specific statements on meteorological conditions before, during or after the 'phenomena' were also scarce. Consequently these categories cannot be discussed here.

As an extra analysis, the distance and geographical compass relationship between the putative agent (A') and the recipient (O') are presented in Figures 3 and 4, respectively. Of the reports which specified the geographical position of both the A' and the O', 18% (11) occurred within the area of the house, 36% (22) with the A' and O' within one mile of each other, and 58% with A'-O' distance 100 miles or less. Only 30% of cases involved distances greater than 2000 miles. In figure 4, the end of the arrow points to the area of the putative recipient while the origin indicates the position of A'. As can be seen there is a slight tendency for an east-west relationship in the reports stated. This is more clearly indicated by the segmented circle in the lower half of the figure which tallies the number

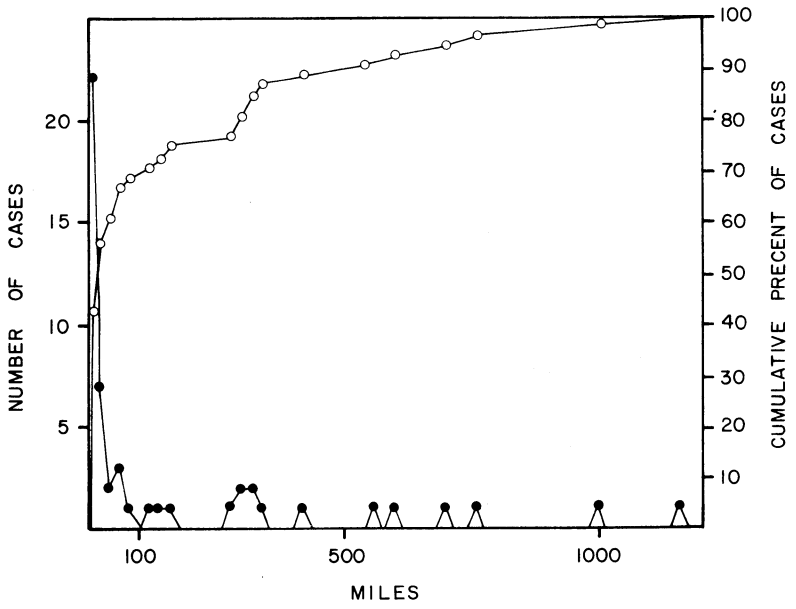


Figure 3. The number of possible telepathic-clairvoyant cases reported as a function of the distance in miles between the "agent" and "percipient" (the reporter).

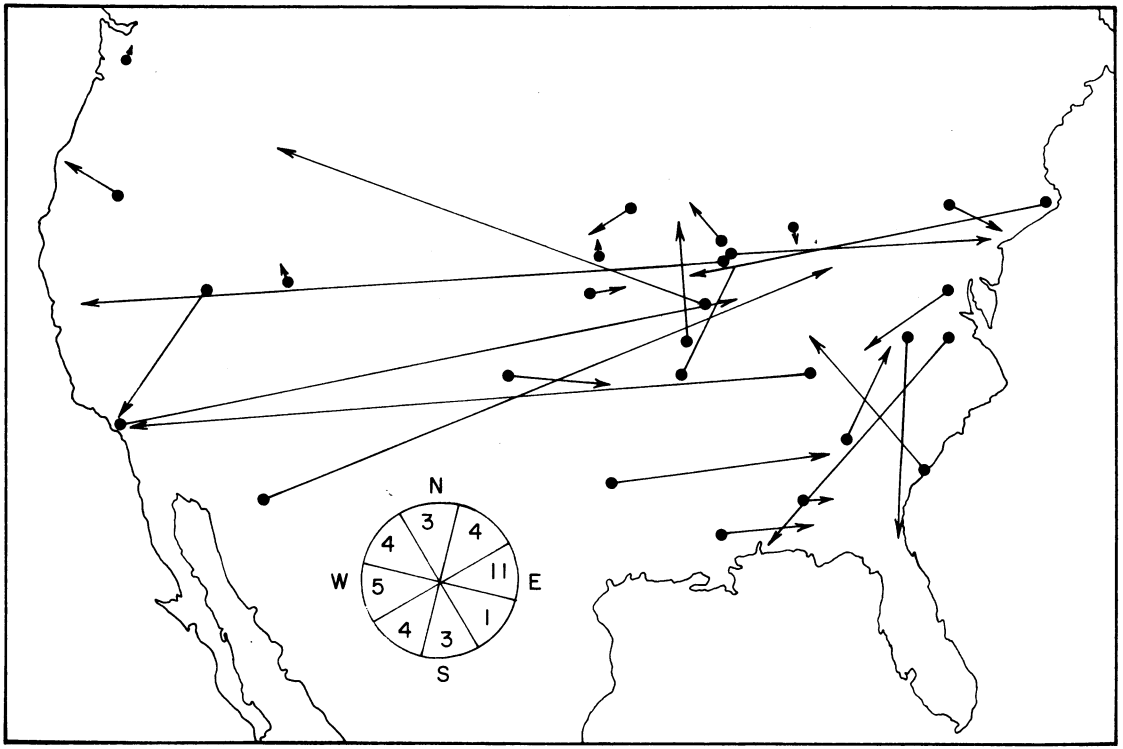


Figure 4. Compass direction of the "agent" (A') with respect to the "percipient" (O') or reporter in possible telepathic-clairvoyant cases where relevant information was given. The origin of an arrow represents the locus of the A' while the arrow point represents the locus of the O'.

of cases where the recipient was in a specific compass direction with respect to the putative agent. The chi-square value was 13.70 and was not statistically significant ($p < .10$).

O': the reporter, 5.0. Of the 58 T-C cases which seem to be more directly involved with inanimate objects as the putative stimuli, 78% (45) of the subjects (O's) were female and 22% (13) were male ($X^2 = 40.2$; $p < .001$). Females reported having experiences which seem to be more involved with possible living stimuli 72% (76) of the cases, with males showing only 28% of the population ($X^2 = 41.3$; $p < .001$). The most frequent combinations of the sex of the putative agent (A') and recipient (O') were A'-male: O'-female (35%), A'-female: O'-female (22%), A'-male: O'-male (11%), A'-female: O'-male (11%), A'-male or female: O'-female (10%), A'-animal: O'-male or female (8%) and A'-male or female: O'-male (3%). Analysis of the first four categories (22%, 35%, 11%, and 11%) produced a chi-square of 20.1 ($p < .001$). Only 16 subjects reported their ages at the time of the 'phenomena'. These ranged from 4-30 years of age and averaged 14.2. The time of report to FATE magazine, which was logged by only 15 of the 164 subjects ranged from 15-74 and averaged 40.2 years. Six of the reporters (3.8%) commented they had previous psi-experiences. Other information was not reported.

Behavior of O', 6.1, 7.1, 8.1. One hundred and thirty seven (137) of the T-C reporters noted their behavior before the

onset of the 'phenomena'. These O's were in a supine position 50% of the time and in an upright position 50% of the time before the P onset. Of the subjects who reported being in a supine position, 94% (65) were asleep. Dreaming was reported by 40% (26) of the subjects while "just entering sleep" was reported by 14% of the subjects. Interestingly, 19 of the subjects specifically stated how they awoke just before the onset of P. Eighteen (18) or 95% of these subjects reported that they "suddenly awoke". The activity of subjects which were upright at the time of P was divided into motorically active and passive categories. Motorically active conditions of O' occurred 59% (40) or the time and included walking (30%), standing (28%), and washing dishes (10%), with activities such as driving a car, playing, swimming, drawing, plowing, dancing, putting on clothes, preparing dinner and several activities filling the remaining percentages. Motorically passive situations occupied 41% (28) of the total upright reported cases and included sitting (57%), and praying (21%) within this category. Activities such as reading, thinking, staring, concentrating, crying, and sketching completed the remaining situations.

The Phenomena (P). Nine categories were constructed to classify the manner in which O' reportedly "received" the paranormal information. From most to least percentage of occurrence the categories were apparition of a person-animal: 32% (51), a voice: 22% (34), a dream scene: 16% (26), a strong hunch or a

compulsion: 10% (10), a "vision in the minds eye": 8% (7), an immobilizing force 8% (7), a symbol: 3% (4), and via a ouija board: 1% (2). Volume 18(6), page 90, of FATE relates a report of an "apparition" experience. The O' was in bed when 'hands' took her and pulled her erect, she then felt a presence of someone else in the room and from the corner of the eye detected a movement. She then saw a figure form from moonbeams. The figure lifted two arms heavenward and floated out of sight between the window and ceiling. The subject interpreted this experience as the appearance of the apparition of her dying husband. A typical case where a "voice" was described is noted in volume 18(3), page 90. While driving alone at a high speed in the early morning, the reporter fell asleep at the wheel. Reportedly he heard a voice which shouted, "Guy, look out.", after which he immediately awoke and barely missed crashing. The reporter identified this voice as that of a dead friend who had been killed in a training flight the day before. Interestingly, in 15 of the 34 "voice" cases, or 44% of the time, lost objects were found from the "information" gained from the voice. These objects were typically valuable and included money, wills, and rings, etc. Fifteen (15) although not the same as above, recognized the voice as a father (5), mother (3), aunt (1), friend (1), brother (2), grandmother (1), husband (1) and son (1). Thirteen (13) or 38% of the voices were related to people who were dead or dying at the time of the voice. Twenty-three (79%) of the

subjects reporting "voices" of human beings (5% apparently were animals) mention that his (the O's) name was definitely stated. In 20 or 63% of relevant cases the voice was in a command tone like "Mary, quick!, run to the baby!".

Strong hunches included descriptions like "stong fear" about a loved one, or "chilled-apprehensive feelings", while "compulsions" were usually described as "forces" which pushed the person to find another person, typically in some crisis situation. In the seven cases reporting an immobilizing force, the O' was in definite apparent danger. For example, in volume 18(6), page 55, the subject was lost in the wild. Just as, he later finds out, he is about to step off into a crevice (and surely to death), he felt a hand-like force push against his shoulders in such a manner that movement was not possible. After trying to move forward several times, he was repeatedly pushed backward. In all seven "immobilizing force" cases, the O' concluded that it saved his life. Only four cases involved a symbol as the form in which the "information" was received. The occurrences of a black butterfly, blackbird and a robin, which apparently occurred near the O' at the time of the death of another person, were attributed to "death signs".

The relation of the putative agent to the recipient O' was divided into immediate family (mother, father, son, daughter, sister, brother), peripheral family (in-laws, uncles, grandmother, etc.), acquaintances, strangers and animals. It

was found that 53% of the putative A' were immediate family, 16% were peripheral, 14% (15) were acquaintances, 9% were strangers (i.e., O' did not recognize them) and 8% were animals (dog, cat, and horses). Chi-square was 58.9 ($p < .001$), for the first four categories. The most frequent A' for the immediate family category were sons, mothers and husbands.

The activity of A' was noted in 56 of the cases of the 106 telepathic events, and divided into categories of death, crisis (involving pain or injury to A'), minor (emotional upsets in A') and trivial (no known traumatic situation). Fifty-four (54%) of the A' were dying at the time of the reported experience. Of these 70% (39) were sudden. (O' reported no knowledge that A' might die) and 30% (17) natural or expected. Crisis situations took up 25% (26) of the A's behavior, while minor or trivial situations were noted 13% (13) and 8% (8) of the total cases, respectively.

O's post P-behavior and Ss (6.2, 7.2, 8.2). Seventy-five or 70% of the reporters in 'telepathic' cases indicated that they definitely modified their behavior in some way after the event. These modifications included both emotional and actual motor movements. Although very few (21) subjects report any emotional change, reports of being "afraid" and not sleeping were most frequent. Less frequently (2 cases or less), nausea, confusion, peace and worry were reported. The two general "negative" categories "anxiety" and "depression" took up 76% (16)

and 19% (4) of the cases, while "peacefulness" or positive emotional behavior were described 5% of the time. Apparently, from the reports, 20 (77%) of the recipients in the 26 cases where the A' was in a crisis situation report that the O's consequent behavior saved the life of A'. Information on the presence of other people (Ss) in the environment was very sketchy and reported by only 38 of the subjects of the 164 T-C reports.

DISCUSSION

Summary of Results.

From the above data, several general patterns are evident from the reported cases of telepathic and clairvoyant behavior.

1. There was a significant increase of T-C reports during summer months (40%), compared to the other three seasons.
2. Significantly more (85%) T-C experiences were reported to have occurred at night, peaking between 0200 and 0400 hours.
3. Significantly more (73%) events were reported inside the home, as opposed to public places or outside.

4. The majority (82%) of T-C events reported to occur in the house were in the bedroom.
5. Geographical distribution of T-C reports seems to be generally a function of the number of FATE magazines available in those areas rather than population density. The only exception was a marked increase of T-C reports from the Salt Lake City, Utah area relative to report numbers expected from either population or circulation density.
6. There was a slight but non-significant trend for positions of the putative agent (A')- percipient (O') to be in an east-west direction.
7. The distance between the possible agent and percipient (reporting the case) was within the house in 18% of the cases, and less than 100 miles in 58% of the cases. The number of T-C events reported decreased exponentially as a function of the distance between the A' and O'.
8. Significantly more (76%) females reported T-C events than males.
9. The average time between the reported T-C experience and its appearance in FATE was 20.2 years.
10. The percipient (the reporter) reported that he or she was alseep in 47% of the cases.

11. Of those asleep, 40% definitely reported they were dreaming before or during the T-C experience.

12. The term "suddenly awoke" was used by 28% of the subjects as descriptive of their immediate behavior before the experience.

13. Of those awake, 34% were engaging in some automatic behavior, e.g., washing dishes, which required little vigilance or concentration.

14. The main descriptive categories of the T-C experiences could be grouped as apparitions (32%), voices (22%), a strong hunch or compulsion (18%), a dream sequence (16%), a vision in the minds eye (4%), an immobilizing force (4%) or a symbol (3%).

15. Of the subjects reporting "voices", 79% reported that their first name was called; 44% of the voices referred to lost or hidden objects.

16. The relation of the putative agent to the percipient was immediate family 53% of the time and peripheral family 16% of the time, 14% were acquaintances, 9% strangers, and 8% animals.

17. In the reported cases, 54% of the putative agents were dying at the time of the percipient's experience, another 25% were in non-fatal but crisis situations, and 13% in what could have been

interpreted as minor crisis events. Only 8% of the "agents" were reportedly engaging in trivial behaviors. Of those who died, 70% died suddenly without the percipient's reported knowledge.

18. Although only 21 of the total T-C reporters definitely stated any "emotional behavior", 96% would be classified as aversive, involving gross categories of anxiety (76%) or depression (20%). Only 1/21 cases noted a "pleasant emotional behavior" (4%).

Comparison to Other Data.

It must be emphasized that the results show patterns in the verbal behavior of people talking about paranormal events. They may be indicative of the verbal patterns of how people talk about what they consider "psychical" or "mystical", and nothing at all about psi-phenomena. The significant increase in female subjects reporting psi-experiences may have something to do with the tendency for females just to report such experiences more often than males. It is conceivable, therefore, that both sexes may have psi-experiences with equal frequency.

One way to test the reliability of the above data is to compare it to other data which have supposedly been collected under more controlled conditions. For this chapter's data, primarily two studies were selected for comparison. The first

study was completed by Dr. Ian Stevenson (1970a) and involved 160 reported telepathic impressions. The cases were selected from those published by the Society for Psychical Research, the American Society for Psychical Research, the Boston Society for Psychic Research, and Phantasms of the Living (1886), against relatively rigid criteria. Cases only referring to psi-events occurring contemporaneously to the percipient's report and involving sensory imagery as the main feature were included. Cases which, in Dr. Stevenson's opinion, involved normal means of communication or did not give sufficient detail were not included in the analysis. A second study, used as comparison for the present data, was reported by Sannwald (1963). These spontaneous occurrences involved both "precognitive and telepathic" material and were collected from people who were responding to request for such experiences from local newspaper articles. Other studies were also used for comparison where applicable and relevant.

The most important results of the comparisons between the data analyzed in this study (taken from FATE magazine without any rigid or specific criteria) and those data analyzed and selected from more "legitimate sources", was the striking similarity between the two types of data. This can be seen in the characteristics of the putative percipient and agent, as well as their reported correlative behaviors.

Females were the dominant reporters in the present study,

taking up 76% of the total T-C cases. The Sannwald study reported that 70% of the percipients were female while the Stevenson study tallied only 53% females. It is conceivable that there was some biasing factor involved with the sex of the individual who reported to FATE, in response to newspaper appeals (Sannwald) or to the journals of Stevenson's study. Also, there is a definite publication time factor. Most of the cases used by Stevenson were published in the late 1800s or early 1900s. Nonetheless, all three studies show a predominance of female reporters of T-C experiences, despite the possibility of different controlling stimuli. Stevenson does not mention the age of his subjects. Sannwald noted that the average age ranged between 55-60 years. In the present study, very few reporters gave information on their ages, but of those who did the average was 40.2 years. The age factor might be important for several reasons. One which may be of paramount importance here is that certain psychological changes associated with aging might predispose an individual towards interpreting any peculiar event, ignored during youth, as something with mystical or religious significance. Scientists who have studied the fear of death (e.g., Feifel, 1959) as a function of age suggest that as a person begins to note the decreased physical vigor and stamina associated with aging, his response patterns to stimuli begin to change.

The age at the time of report of the experience was usually quite different from the age when the T-C event was experienced. In the present study an average of 20.2 years

elapsed before the event was finally reported to FATE. This is ample time for subtle but important changes in the recall of the initial experience. Again, what might have been interpreted as an unusual event 20 years before, could later be remembered as something of greater significance to the individual. It would be interesting to know how many people began to read about paranormal behavior in the myriad of books available, after the initial T-C experience. It is possible that the original verbal behavior concerning the T-C event could have been modified by later reading on the topic. The reporters in the three studies might not be having similar experiences, but reading books which contain similar descriptions of psi-phenomena. With material which has considerable emotional association -- and indeed "seeing" apparitions of loved ones or hearing voices about hidden objects does contain emotional components, the discrimination between information that was read or experienced first hand by the organism becomes difficult.

Neither of the other two studies mentioned gave any statistical data on the number of reporters who apparently had previous psi-experiences. In this study only 3.8% noted any previous experience that might be interpreted as paranormal behavior or was interpreted as "psychical" by the subject. This is not surprising. Both from non-experimental and laboratory studies, the number of subjects who report high frequencies of paranormal responses is quite small. In the average population, there is a range from

those people who experience only one or two things in a lifetime which might be interpreted as paranormal, to those who experience such things daily. These latter subjects are quite rare and difficult to obtain for laboratory or controlled work. In the past they have been called mediums or sensitives and a series of other labels. Essentially, they are individuals who display a high frequency of paranormal responses.

The activity of the percipient (O'; the reporter) before the event has been recorded by many studies. Sannwald reported that 50% of his subjects were in the sleeping state while another 50% were awake. Of the 50% sleeping, he indicated that 100% were dreaming. On the other hand Stevenson's data indicated that by far the majority of his subjects were awake, in fact only 11% were asleep. The present study shows marked agreement with Sannwald, the difference in activity between asleep vs. awake being split -- 47% vs. 53%, respectively. However only 40% of the present study's reporters gave a definite response that dreaming was in progress. Again, the difference in the Stevenson data might easily be attributed to the criteria used for selection. He used only cases indicative of <u>impressions</u>. If the data in the present study, (which were classified under "hunches or compulsions"), were selected in terms of response descriptions of the Stevenson study, then 80% of such "impression cases" occurred while the subject was awake. A marked similarity.

The relative paucity of people dreaming in the present study compared to the Sannwald study, as well as other studies which involved smaller subject numbers, might also be an interpretation factor. Those people who heard voices or awoke suddenly from sleep in Sannwald's report might have interpreted their experience as a dream or partial dream sequence. The cases discussed in this text however were differentiated according to content. T-C experiences were tallied as dreams only when they did not involve voices, or comments like "suddenly awaking with apprehension".

The waking behavior of the individual before they experienced a T-C event at first glance does not seem particularly informative. In the study using FATE reporters, motorically active behaviors were not different in terms of percentages than passive (sitting) behaviors. What is important is that regardless of the mode of activity, the response patterns being displayed before the T-C event were frequently (34%) automatic ones involving little vigilance or attention. These behaviors included washing dishes, sewing, staring into space, watching a fire and similar situations. More inference is being made here than the author would prefer. Optimally, electrical recordings of brain activity of these subjects would have been required before any definite statement could be made. Other experimenters (Burch, 1969; Schwartz, 1961) have reported that absent-minded or trance-like states of everyday life seem to

favor the occurrence of telepathy. Schwartz (1961) mentions that during such periods the subject is preoccupied with material in his "preconscious mind". Such an interpretation is not required.

There is considerable data in all three studies about the characteristics of the putative agent and percipient behaviors. In both Sannwald's and Stevenson's data, a male is the apparent agent 61% of the time, while in the present study the male is involved in this manner 68% of the time. This is a recalculation of the original frequency counts to make it comparable to the other studies, since in the results section references were also made to both animals and groups as putative agents.

The relationship of the agent to the reporter exhibits a striking correspondence in all three studies. In the Sannwald, Stevenson and present study, the agent was in the immediate family, 50%, 63%, and 53% of the time, respectively. The Sannwald and present study showed that the most frequent relationship of the agent to percipient was son, husband and mother. Recalculation of the data to make it comparable with Stevenson's report showed, that in the three studies mentioned above, the relationship (in the immediate family cases) was parent-child in 56%, 54%, and 61% of the cases, respectively, husband-wife in 29%, 22%, and 25%, respectively and between siblings 15%, 24%, and 14%, respectively. The percentages in these three studies

for these agent-percipient relationships are extremely similar. The agent was a member of the extended or peripheral family (aunt, grandfather, etc.) in the Sannwald, Stevenson and present studies in 10%, 7%, and 16% of the cases, respectively. Friends and acquaintances filled 28%, 27%, and 14%, respectively of the cases. Strangers were noted as agents in these studies in only 3%, 11%, and 9% of the time. The first two studies probably sampled only those which dealt with human agents, since cases dealing with non-human animals were not mentioned. They make up 8% of the FATE T-C cases. There is marked consistency in the large percentage of immediate family, specifically parent-child, agent-percipient relationships in the three studies. This indeed may be indicative of the stimulus operations associated with paranormal behavior. As a control, it would be interesting if some count could be taken of how frequently parent or child references occur in usual waking and dream behavior.

The activity of the putative agent at about the time of the T-C experience was predominantly that of dying. Table 4 shows the situation of the agent in five other studies where these data were available. In the present study the agent was dying in 54% of the cases. Other studies report values of 41%, 35%, 28%, 43%, and 46%. Not serious or trivial situations filled only 21% of the cases in the FATE study and 18%, 35%, 21%, and 24% of agent behavior in other studies. Crisis, but non fatal

Table 4: SITUATION OF AGENT AT TIME OF T-C EXPERIENCE OF REPORTER (PERCIPIENT) FOR PRESENT AND OTHER STUDIES

Agent	Present Study	1	2	3	4	5
Dying	54%	41%	35%	28%	43%	46%
Crisis	25%	41%	30%	24%	36%	30%
Not Serious	13%	18%	---	Data not comparable	18%	4%
Trivial	8%	0%	35%	---	3%	0%
Miscellaneous	---	0%	0%	0%	0%	20%

1. Stevenson (1970) 2. Saltmarsh (1934) 3. Green (1968)

4. Sannwald (1959) 5. Prasad & Stevenson (1968)

situations were being reportedly experienced by the agent in 25% of the present study cases and 41%, 30%, 24%, 36%, and 30% in other studies. Again, the predominant trend is for the agent, at least in the report of the experience by the percipient, to be in a dying or crisis situation. Furthermore, the kind of death was summarized in the Stevenson data. A recalculation of his data indicated that 71% of the deaths were sudden, without the percipient's knowledge. In this study, 70% of the deaths were sudden or unexpected.

To fully examine the implications of the putative agent in a death or crisis situation, we must also consider the behavioral impact of such situations upon the reporter or percipient. Ordinary or trivial situations should have little if any effect upon the behavior of the agent and consequently no effect upon the reporter. The death of the agent, which the data indicated is usually a member of the close family, would have considerable consequences upon the behavior of the reporter. The parent, for example, is associated with reinforced behaviors as far back as the initial spatial-temporal contiguity between milk and the mother's presence. One could view the parent as a stimulus complex which has been present throughout most of the percipient's history and with which is associated many private behaviors which could be labeled as "pleasurable or secure". Death results

in the permanent removal of this long term reinforcer from the reporter's life. Psychologists still do not fully understand the controlling stimuli responsible for the "normal" responses to death situations. We do know that these responses are often exaggerated and include a high frequency of autonomic responses, e.g., crying, "lumps in the throat", loss of weight, insomnia, and related "mourning symptoms". One has only to objectively view the ritual of funerals, the prettification of the corpse, and the thousands of dollars spent attempting to prevent the corpse from deteriorating, to see this. Wahl (1959) concluded that if human beings behaved in such a manner in other areas of human behavior, it would be considered psychotic or crazy. Under the autonomically arousing consequences of close family death, experiences such as "apprehension" or "fear" -- normally dismissed as infrequent but usual behavior, could take on special significance. Recall of death events have been demonstrated to be aversive to human subjects and have been shown to be subject to distortion, misinterpretation and even gross confabulation. One example of changes in report of an unusual event being quite subtle was observed by this experimenter. A middle-aged woman insisted for several days that something was "going to happen". She did <u>not</u> specify what was supposed to happen. When news arrived that her Uncle John had died unexpectedly, she then reported the original experience as "knowing something would

happen to Uncle John." Confronting this subject with the initial data that she had not specified the dead person, resulted in her insistance that my data of her verbal behavior were in error. When the other family members were asked if she had specified any name before the news of the death, they agreed that she had referred to Uncle John.

Autonomic arousal is a general term used to describe the physiological correlates of emotional behavior. Cardiovascular responses (dilation-constriction of blood vessels; blood pressure), blood chemistry (adrenalin, noradrenalin fluctuations), respiration differences, cutaneous changes (sweating, piloerection), and gastro-intestinal modifications are examples. In spontaneous cases of T-C events the presence of significant autonomic responses have been noted. Stevenson reported that 61% of his cases involved feelings of anxiety on the part of the percipient while another 36% described feelings of depression. Only 3% referred to experiences of "positive" content such as joy. The present study produced comparable results. Of those that reported emotional behavior, anxiety-like and depressive reports were noted in 76% and 19% of the cases, respectively. Only 5% reported sensations of "peacefulness" or "security" either during or after the T-C event. It should be emphasized however that only 13% of total T-C reporters mentioned any type of emotional-type experience. The remaining 87% of the percipients did not allude to any words

suggesting autonomic arousal. Nonetheless the experience did produce some behavioral consequence in 70% of the subjects. The behavioral change following the T-C stimulus ranged from finding hidden objects to helping animals in crisis situations.

It is apparent that previous studies have been oriented towards the organism and behaviors of the organism rather than the concomitant environmental events. Consequently few studies have considered the possible importance of season, time of day, and geographical position of the percipient at the time of the T-C experience. In the present study definite trends were noted in the reported time of day, with T-C events increasing markedly after 10:00 P.M. and peaking between 02:00 and 04:00 A.M. No doubt these times are partial artifacts since the subject was asleep in just less than half the cases. The importance of the time of day is also contaminated by certain cultural expectancies of the phenomena. Clichés such as the "bewitching midnight hour" plus the many stereotyped night-time associations about psi-experiences certainly contributed to the observed increase in report during these hours. Similarly, the significant increase of summer season T-C reports must be investigated in terms of the possible increase in summer time crisis situations. The number of deaths in the total population is not 15% higher during summer months, hence if agent death

is the relevant stimulus for the T-C event, summer increases were not merely a function of seasonal mortality differences. Summer seasons are also times when families share in recreational behaviors (e.g., reunions), which might influence the content of what a person "is thinking about" during the T-C experience.

The data collected here on spatial coordinates of the percipient are a lesson in data interpretation. Very few studies have attempted to find any systematic change in some measurement of T-C events (e.g., number, accuracy, response strength) as a function of distance. For example Osis and Turner (1968) use only three geographical locations for distance and a value for the deviation from chance for card (stimuli) guesses as the response measurement. Spatial data have been inconsistent, but often used as proof of the "ability of T-C to penetrate space". In this study (Figure 3), the number of T-C cases falls off rapidly as the distance between the putative agent and percipient increases. The decrease closely fits an exponential decay curve. This would not be surprising if the mechanism responsible for the T-C event followed the laws of any other energy attenuation. Excitement about this finding is premature since a clean experimenter would also like to know what distances usually separate the relative-

friend from the percipient in the average population. Since a high frequency of family-friends are the "agents" in T-C cases, the exponential fall off may merely reflect that friends and relatives, most of the time, live very close together. In addition, the behavioral impact of death (e.g., going to funerals, seeing the corpse) would be greater.

Two major conclusions can be drawn from this section. First, the results of this study, which involved a "non-discriminative" selection of verbal reports concerning T-C experiences, closely resemble the results of other studies considered more "legitimate" by parapsychologists. This suggests psi-reports in FATE magazine are just as reliable sources for information of people's verbal patterns concerning T-C experiences as the more accepted sources. From another point of view, one could also conclude that the accepted sources are just as inconclusive and subject to the same difficulties of control as the FATE analysis. Second, although both previous studies and the present one show similarities of T-C behavior patterns, these patterns can be interpreted in terms of artifacts of normal human behavior which have been usually ignored when psi-experiences were analyzed by other investigators. Correlational

data always has this problem. One way to determine if a given stimulus involving normal or paranormal operations produces a response is to experimentally manipulate it in a controlled situation. This is the next step: to compare the above correlational data from spontaneous cases with what has been learned about paranormal behavior in the laboratory.

Chapter IV

TELEPATHY-CLAIRVOYANCE: LABORATORY EVIDENCE, COMPARISONS TO SPONTANEOUS REPORTS, AND MECHANISMS.

Science works because a number of emperical facts are shown to be related in some systematic matrix which allows internal consistency and prediction. Emperical measurement is the first essential of a science, but a lonely measurement, by itself, no matter how replicable is often forgotten or questioned or ignored. The power of psychological closure is too strong. Many discoveries of science were known to exist years before the changing kaleidoscopic patterns bv which science sees nature incorporated them. What makes a phenomenon meaningful and useful to scientists is that it can be shown to be consistent with the present body of knowledge. Thus for example, the age-old correlation between weather and lunar phase has been re-evaluated in the context of recent discoveries of the solar wind, particles trapped in the geomagnetospheric tail, and the release of these particles into the lower atmosphere following disturbances by lunar passages. The description of lunar-weather relations is in this way meaningful because it is internally consistent with what mechanisms scientists know and what they believe. More importantly it is consistent with experimental results.

In Chapter III a number of interesting patterns of verbal behavior concerning putative telepathic-clairvoyant events were reported. Their consistency with other verbal reports of similar phenomena was also noted. The next step is to see how consistent these verbal patterns of T-C events are with laboratory experiences. By doing this we may be able to incorporate these otherwise interesting but useless pieces of data into a systematic matrix that is consistent and predictive. The most consistent experimental correlates of laboratory telepathic and clairvoyant instances are concomitant fluctuations of emotions and levels of arousal. Recent research has concentrated on the role of mood, relaxation, and dreams on T-C experiences. In the following chapter, sample experiments which most aptly demonstrate these patterns will be presented and later compared with T-C verbal behavior from the spontaneous reports.

Moss and Gengerelli (1968) demonstrated that manipulation of the "feelings" and correlative autonomic changes of the putative agent in a T-C situation could be done by showing emotionally charged episodes of pictures accompanied by the appropriate music or sounds. Subjects in the roles of agents were shown pictures centering around such themes as Madonna and child, accompanied by the music of Silent Night, or pictures of space with electronically distorted music. After each presentation of the visual-auditory stimuli, the agent was requested to record his reactions.

nervous system with T-C events. Essentially the following procedure is used. The agent is shown several of four types of cards for twenty seconds each. The cards may have names on them which are emotionally meaningful to the agent, to the percipient or randomly selected from a phonebook. A fourth type of cards contain only blank surfaces. The percipient is housed in another room and is not told about the sequence of events or the duration of stimulus presentations. Instead he is instructed to relax. To his fingers the plethysmographic sensors for measurement of changes in blood volume or flow are connected.

Dean reports that significant increases in vasoconstriction occurred in percipients when names supplied by the percipients were shown to the agents without the percipient's normal knowledge. Later reports (Dean, 1966) indicated that this was not always consistent and that increased vasoconstrictions could occur during blank card presentations to the agent but not during name-card presentations to the agent. A post-hoc investigation indicated that high anxiety in the percipient could complicate matters. However other experimenters (e.g., Barry, 1967 and Pelisson, 1966), using similar experimental designs have reported correlations between vasoconstrictions and presentations of names meaningful to the percipient. Supposedly these consistencies occurred when the agent and percipient were separated by distances of over a thousand miles.

The Dean-type experiments deserve close scrutiny and fair evaluation . Their most significant contributions are the suggestions that (1) T-C behavior may be associated with the autonomic nervous system, and (2) these changes may occur without the subjects awareness. Responses of the body to external stimuli without the person's "awareness" or reported knowledge, i.e., "unconscious", have been reported in other experimental situations. Levitt (1967), while attempting to biochemically differentiate "fear" from "anxiety", exposed human subjects to electric shock. Following blood samples from which ACTH was later assayed, the subjects were given a hypnotic suggestion to forget the painful experiences associated with the room. ACTH, a hormone of the adrenal gland, was predictably higher in the electric shock group than the control group. Some weeks later the subjects who had supposedly hypnotically forgotten the incident were asked again to participate in an experiment. After entering the room which had previously been paired with the shock, blood measures were once more taken. It was found that the ACTH levels were again increased, even to levels beyond those of the original shock situation. Many of the subjects were not aware of this change. Some reported feelings of apprehension. Levitt demonstrated two things: (1) that autonomically related changes can occur in the body without overt recognition, and (2) not being aware of the stimulus with which aversive stimuli (shocks) have been paired, can

produce changes greater than the aversive stimuli themselves.

Responding to a particular stimulus implies conditioning and learning, i.e., a more or less stable modification of behavior. The existence of "unconscious" conditioning has also been experimentally demonstrated. Hefferline and Keenan (1963) conditioned small contractions of the thumb by varying the amount of money received. The subjects presumed the delivery of money was related to another task. The thumb contraction response was of sufficient magnitude to be recorded by instruments but not "consciously" detectable to the person. The response was capable of being extinguished and re-conditioned. To demonstrate that the subjects were not aware of which responses were reinforced, an interview was given after the session. Other studies have found that not only are human subjects unable to isolate the response conditioned, but also think they are "controlling" the reinforcement by a spuriously-related response, an experimental example of superstitious behavior.

Inadvertent learning, conditioning, subliminal perception and other borderline cases of modification of human behavior have been a source of periodic controversy by orthodox psychologists. The role of subliminal perception, itself suggested as an explanation of T-C occurrences, has been both supported and rejected by various experimental results. The roles of these phenomena in human behavior are still not clear, but there is no doubt

that in some situations "unaware" conditioning of behavior occurs.

Intimate participation of the autonomic nervous system in T-C behavior would suggest several interesting consequences: (1) learning of T-C stimulus response patterns, (2) reflex-like responding to T-C stimuli, (3) response specificity, (4) state-dependent learning and display of T-C behavior and (5) the importance of reinforcement.

The autonomic nervous system is extremely susceptible to classical (respondent) conditioning. This procedure involves the paired presentation in space-time of a neutral stimulus with an unconditioned stimulus (UCS) which, due to the innate characteristics of the organism, elicits an unconditioned response (UCR). After repeated pairings, the neutral stimulus is called the conditioned stimulus (CS) since it can elicit (by itself) a response (CR or conditioned response) which is similar to the UCR. Repeated pairings of a bell with a shock (UCS) to which a conditionable organism twitches (UCR) can soon result in the bell (CS) eliciting a similar twitch (CR). A modern example of classical conditioning is found with the clock radio. Some people, in order to awaken in the morning at a specific time, set the amplitude of the radio at maximum before going to bed. With some radio models, the high intensity sound (UCS) when the radio is activated the next morning is consistently preceded a few seconds by a soft "click". The onset of the UCS produces a very aversive response: the sudden and queezy effect of awakening to an aversive (loud) stimulus (UCR). After a number of pairings with the "click" (CS) before the sound (UCS) only the soft "click" is sufficient to arrest the deep sleeper. Upon awaking,

the person reports queezy feelings and a sense of anticipation (CRS) which are not totally subject to immediate voluntary control. Once the paired conditioning has taken place, the presentation of a noise similar in tone to the "click" during the waking hours can also elicit queezy feelings, depending upon the amount of stimulus similarity. The CRs can be even more persistent if a CS-like click occurs during the waking hours when the person is at the "level of consciousness" approaching that of sleep, e.g., day dreaming, "drifting", where the conditioning originally occurred.

The above example demonstrates the following properties of classical conditioning in the autonomic nervous system: (1) it can occur without the conscious awareness of the person conditioned, (2) the consequences of "queeziness" and similar visceral changes upon awakening are not easily voluntarily controlled, (3) the reactions are selective to stimuli similar to the original conditioning situation, (4) the occurrence of the responses can be accentuated during the presence of bodily conditions in which they were acquired.

T-C responses and conditioning would be expected to follow the same patterns. They could occur when the subject was not aware of them, as in the case of Dean's recording of T-C vasoconstrictive reactions. Similarly, their effects would not be easily voluntarily controlled. Frequent reports of situations where people are

aware of T-C experiences, show that once the feelings accompanying the T-C stimuli are elicited or set into play, the person just cannot "shake" the feelings for a considerable period of time until he executes some behavior to alleviate those feelings. The T-C reactions are also specific, being elicited by stimuli to which there has been previous autonomic conditioning. This was demonstrated with the responses to familiar names and not to unfamiliar names in the vasoconstriction experiments.

The fourth point cannot be answered in the context of the above experiments. This point implies that if T-C behavior occurs most frequently during primary process-type thinking, the original conditioning took place when this mode of consciousness was most dominant such as in dreams and similar processes. Thus, it would be more likely for a T-C experience to be reported when the initial conditions associated with the conditioning were again simulated. It has been shown that some behaviors can only be elicited or recalled when the conditions under which they were acquired are produced once again (s.f.e., John, 1967), a process labeled state-dependent learning. Both experimental and spontaneous reports indicate that T-C occurs more during dream and free-associative thinking. The fact that the state-dependent T-C response can still be elicited at all by the T-C stimulus suggests that the conditioning could still have been occurring between the percipient and other objects during susceptible periods at least until the time of the measured response. The far-reaching implications of these points are considered in Chapter I.

The final feature of a learning-conditioning model of T-C behavior is that the maintenance of the behavior must involve reinforcement. In the clock radio example of conditioning, the click fails to awaken the subject if it is no longer paired occasionally with the loud sound. We have seen in the history of parapsychology, many subjects who showed initially high scoring that declined over time. The decline of their "abilities" shows a pattern markedly similar to a normal extinction curve of more frequent behaviors. There is some evidence that psi-behavior may be maintained slightly, especially the card guessing responses, if reinforcement with respect to the accuracy of a response is given to the subject. The term "sufficient reinforcement" is the catch here. Informing the subject what the card target actually was following a guess response, may not be sufficient to sustain T-C behavior simply because it is not the reinforcer by which T-C behavior was initially conditioned. For meaningless stimuli with which T-C behavior has not been reinforced should not be very effective stimuli and any initial psi-hitting could fall off quickly. The occurrence of any T-C behavior with neutral or meaningless stimuli such as Zener cards would reflect an initial "orientating response" to the cards. Orientating responses habituate quickly if appropriate reinforcement is not delivered, although they may occur again spontaneously or after the organism has been away from the stimulus. Patterns of T-C occurrences are not inconsistent with these comparisons.

The Alpha Frequency Band and T-C

The brain produces time-varying electromagnetic events over a specific frequency range. Most of the electrical processes occur between 0.1-Hz and 100-Hz, with the actual power density peaking about 10-Hz. Recording of electrical activity occurring over global areas of the brain is accomplished with an electroencephalograph. Changes in electroencephalographic frequencies can be generally associated with "levels of consciousness" or specific brain disturbances. During extreme activation as during fear or excited emotional behavior the electroencephalogram shows desynchronized, low amplitude mixed frequencies between 14-50-Hz. The person experiences restricted awareness, divided attention and a diffuse, hazy confusion. Normally during alert attentiveness, the brain displays partially synchronized waves, again in the 14-30-Hz band. The person can concentrate and behave efficiently. These frequencies are called beta activity.

During relaxed wakefulness there is a synchronization of brain electrical activity, typified by high amplitude frequencies between 8-13-Hz. These frequencies occupy the alpha rhythm band. This condition favors free association and is often accompanied by what is called creative thought. During states of drowsiness, a reduced alpha output and increased occurrence of theta (4-7-Hz) and lower frequencies are observed. Conscious experience during this time shows borderline or partial awareness and dream-like,

reverie states. During light sleep, typified by bursts of higher frequency oscillations superimposed upon slow waves below the alpha frequency, there is a marked loss of consciousness. Dreams often are reported if the person is awakened.

A recent development in T-C research has employed the use of the electroencephalograph to monitor changes in brain activity during T-C situations. It has been long recognized that periods of relaxation and dream-like experiences often preceded effective T-C behavior in some subjects, but the quantification of this level of consciousness was not possible. Continuous monitoring of continuous brain electrical activity while subjects attempt to display T-C responses could lead to the isolation of some specific, reliable electrical correlate of the behavior. Once the correlate has been established, it could be systematically manipulated in order to elucidate the mechanism.

To date the consensus of experimental results indicate that (1) increases in the amount of alpha rhythm during a given test period is associated with increased T-C behavior in card guessing situations, and (2) an increase of the frequency of the alpha rhythm between the rest period and test period is associated with increased T-C reports. Honorton (1969) noted a positive correlation between the abundance of alpha conditioning in the subject's record and his total T-C score. Similar relationships were reported by Wheeler (1971) who tested a high scoring subject. Periods of increased alpha rhythm abundance from pre-

run to run were again associated with higher T-C responses. However the relationship is not a simple one. Increased alpha rhythm may simply reflect the activation of a correlative system responsible for the effects. Stanford & Stanford (1969) in fact found that greater increases in alpha abundance were associated with greater variances in ESP scores and that in some cases negative correlations between alpha abundance and T-C ability occurred. Variance is usually a consequence of interacting variables, each of which separately have different or opposite effects on the response measured.

Stanford and Lovin (1970) found that a change in the alpha frequency might also be a correlate of T-C experiences. Usually people retain about the same frequency profile in the alpha range. Some show marked variations, with alpha rhythms displaying frequencies throughout the 8-13-Hz band. Stanford noted that the frequency change from the pretest (relaxation) period to the period of "ESP" testing was correlated -0.51 with the total "ESP" score, a respectable coefficient. In an experiment between Stanford and Stevenson (1971) with the latter as the agent, similar results were noted. The percipient (Stanford) went through a mind clearing procedure during which time the "mind was cleared" of all thoughts, then he waited for an image to develop. At the same time the agent was concentrating on a specific stimulus. The results indicated that a negative correlation existed

between alpha frequency and total "ESP" score during mind clearing, that is the lower the alpha frequency, the higher the score. However, the positive correlation still existed between change of alpha frequency between the rest and test period and the total score.

We have previously mentioned that an increase in the behavioral mode in which T-C responses occur may probabilistically increase the number of T-C responses reported. For example, artists who remember more of their dreams, also show more T-C behavior. Since the occurrence of the alpha rhythms seems somehow involved with T-C responses, one would also predict that experimentally-induced increases in these rhythms might increase T-C efficiency. Recently, there has been an exuberant interest in control of internal physiological and private behaviors. The techniques to accomplish this have grown out of the biofeedback technologies which offer mastery to those systems of the body which previously lacked the feedback circuits to allow voluntary control. It has been demonstrated that increases in alpha abundance or changes in alpha frequency can be accomplished with an auditory feedback display of ongoing brain electrical activity.

Adapting these techniques to T-C research, Honorton, Davidson and Bindler (1971) pre-trained their subjects in a biofeedback procedure which produced an increase in alpha rhythmicity.

The subjects were then tested on a DT (down-through) procedure, where they had to guess the order of cards in Zener decks -- a test of clairvoyance. Predictably, they found that increased alpha abundance associated with biofeedback training increased the score on the DT methods. Apparently the modes in which T-C responding most frequently occurs, can be experimentally developed.

Collectively the Stanford-Honorton series have given emperical referents to an attention-psi relationship that had been suggested by several other authors. Relaxation during the pre-TC stimulation period but somewhat aroused conditions during the T-C task, increases the frequency of the behavior. Murphy (1966) had similarly noted that a shift in "state of consciousness" activated "ESP". The existence of labile shifting of "conscious" levels (and electrical correlates) would be a major factor in producing results that were inconsistent and a function of many situational and individually dependent factors. Thus the studies which reported negative correlations between alpha rhythm abundance and T-C performance might have analyzed activity that was occurring after the essential T-C related frequency shift had taken place. A frequency shift concomitant with changes in conscious activity would also be a prerequisite to relay the T-C information obtained through the optimal T-C states of relaxation and free association to the active and usual modes of thinking. Without the electrical activity-conscious shift the T-C responses

could be lost from conscious awareness and occur as autonomic change experienced at most as vague apprehensions. However, if the stimulus was sufficiently strong to maintain a T-C response, even though it was not conscious to the subject, the information could be conveyed to consciousness later that night by the second T-C sensitive process: dreaming.

Experimental T-C and Dreams

Many studies have reported at least half of T-C experiences reportedly occurred during or right after a dream situation. However the experimental verification of such reports has been shown only recently by Krippner, Ullman and Honorton with a large series of experiments at the Maimonides dream research center. Their essential paradigm was to record the electroencephalographic changes in selected percipients throughout sleep period, so that periods of dream activity could be determined. During these periods of dream sleep, an agent in some other room concentrated on a target and attempted to send it while the percipient was dreaming. Typically the target was a famous painting. Towards the end of a dream sequence, which lasted a few minutes, the subject was awakened and the dream recorded on tape. Immediate post-dream recall must be done since recall percentage of the previous dream sequence deteriorates appreciably within 15-minutes.

Ullman, Krippner and Honorton have shown that if the percipient of the previous night is shown several paintings the next morning, one of which was the one that was "concentrated upon" by the agent, the percipients would choose the latter pictures significantly more often than would be expected by purely chance selection. Furthermore, the contents of the dreams themselves seem to involve elements of the picture upon which the agent had concentrated. These results are more difficult to evaluate since the decision of similarity or dissimilarity was determined by various groups of judges.

Krippner (1970) later reported that in the experimental situation, sex differences were apparent between best combination of agents and percipients. He found that the most effective percipient sex for display of T-C reports was male. Significant numbers of correct guesses of target stimuli were shown by males with both male and female agents. In situations where females were percipients, the number of hits with respect to those expected by chance were not statistically significant.

A Comparison of Spontaneous and Experimental T-C Behavior

The importance of the "emotional" or attentive condition of both the agent and percipient can be shown in experimental and spontaneous reports of T-C behavior. The Moss-Gengerelli

experiment demonstrated that invoking autonomic responses in the agent could be an important factor for significant T-C behavior. In the spontaneous cases, typified by more vivid and intense responses in the percipients, the agents were displaying extreme emotional reactions. Death of the agent at or near the time of the presumed T-C response was reported 54% of the time in the cases sampled. Another 38% of the agents were engaged in crisis behaviors or situations which were interpreted by the agent or percipient as emotional invoking. Only 8% of the people identified as agents were showing trivial behaviors at the time of the T-C report.

The ongoing private behaviors of the percipient are also comparable in experimental and spontaneous cases. Relaxed, high alpha-abundance conditions or dreams appear to be essential prerequisites for laboratory T-C. Spontaneous cases show the percipient asleep 47% of the time. Dreams were actively recalled or identified in 40% of these cases. Those subjects who were awake during the T-C occurrence show a propensity (34%) to be engaging in automatic behaviors which would allow brief periods of alpha-band conscious states to take place. Such automatic behaviors as washing dishes, watching television or some other boring motoric ritual,require little concentration or vigilance and thus allow for transient relaxed conscious states to appear.

The slight shift from these states to more active thinking, reported in such phrases as "I pulled myself from day dreaming", "I suddenly realized I was in something like a trance", would parallel the positive correlation between increased frequency shifts in EEG readings and positive T-C scoring in the experimental paradigms of Stanford and Honorton. The term 'suddenly awoke', often used to describe antecedent or coincident subjective conditions with T-C behavior may also be interpreted as signifying shifts in electrical state of the brain from lower to higher frequencies.

Presence of the optimal T-C perception mode has been emphasized as an apparent prerequisite for reporting of T-C behavior. Factors responsible for increasing the availability of this mode might also account for some of the interesting patterns noted in the FATE reports. For example, it is quite clear that more T-C responses are more often reported in the summer season than in the other three seasons of the year. Before the advent of air conditioners and internal temperature control, summer temperatures were important regulators of sleep duration. Consequently increased T-C reports in the summer may merely reflect the greater restless behavior and greater tendency to wake-up during dreams or recall dreams through these months. Similarly, the interesting peak between midnight and 4:00 A.M. may reflect natural features of the greater tendency to awake during dream or near dream sleep and hence to have greater access to the modes

of T-C phenomena. However if this factor was of primary importance, greater numbers of T-C responses should have been reported during the later morning hours just before people awake, since it is during this time that the person engages in more dream-sleep relative to deep sleep. The probability of being awakened during these lighter sleep periods is much greater. Another mechanism to explain the early morning peak is required.

The format in which a percipient reports a T-C experience can be used as a preliminary tool to isolate the body mechanisms involved. Certainly the role of emotional behavior and those systems associated with emotional behavior have been long implied. Whether these autonomic-emotional responses are a direct result of the T-C stimuli or a consequence of a response to the T-C stimuli is not clear. Of the seven basic formats by which T-C reports are most often stated, the strong hunch or compulsion (18%) is most indicative of autonomic changes. Experimental research in psychology has shown that the labels used for descriptions of artificially induced emotional reactions are diffuse and highly individualistic. However the most common type of report pattern associated with induction of visceral changes are those of feeling "slight headaches, apprehension , something on the tip of the tongue, hunches", etc. Whether these reports are concomitant with demonstrable vasoconstrictive changes as reported in the Dean reports remains to be shown.

The primary format by which T-C experiences were reported

did not involve diffuse feelings but apparently occurred in what the percipient perceived as concrete real stimuli. Perceptions of apparitions were reported in 32% of the T-C reports while the occurrence of a voice, specifically the subject's own name, occurred in 22% of the cases. In the context of a conditioning model, there is no reason that a T-C stimulus should only elicit specific autonomic changes. Specific images of visual stimuli and auditory stimuli may also be produced. Such conditioning can occur with more normal stimuli in the laboratory. The difficulty with this contention is that most people can certainly discriminate between a "thought image" and the image from a "real" stimulus in front of them. In spontaneous cases, the reporters are impressed with the "realness" of the apparition or the call of their name. The mechanism which allows us to make decisions about what is real and not real, e.g., dreams from waking state, remains to be isolated. There is no doubt that such a mechanism exists. If it did not we would have considerable difficulty distinguishing the memory of the waking state from that of dreams. The memory of waking events alone is subject to a multitude of distorting influences.

There is one kind of behavior that may offer a hint as to the nature of the "realness" of apparitional reports. This behavior has been called eidetic imagery or more popularly "photographic memory". Eidetic imagery is a rare behavior; most often it occurs in children. The essential feature of this type of perception is that once the subject is shown a picture, he keeps details with remarkable accuracy.

The realness of the image is an important feature. Recent research has indicated that during the recall of eidetic images, these subjects show prominent alpha rhythm activity (Pollen and Trachtenberg, 1972). The role of alpha rhythms during laboratory T-C phenomena and with reports of "astral projection", in which the experiences seem exceptionally real, has been reported. Also during alpha- or alpha-related activities people report meaningful experiences between themselves and invisible beings, e.g., gods. Occurrence of analogous brain conditions might also invoke the percipient in a spontaneous situation to report hypnagogic image, dream or related image as real and physical.

The most conspicuous discrepancy between the experimental and spontaneous cases of T-C exists in the gender pattern of the agent and percipient. In the experimental situations the male was shown to be a more successful percipient; the opposite was noted in the spontaneous reports. Certainly one critical difference between these populations is the report biasing of the spontaneous group. Males may not have reported their experiences as frequently as females due to various social or psychological factors that dismiss such reports as "feminine behavior". Alternatively, males may experience more of their T-C responses during the dream state. This possibility was not apparent from the spontaneous data.

One variable that could be responsible for the selection of optimal percipient-agent pairs is the degree of homogeneous ex-

perience or conditioning. In a randomly selected human population, different stimuli elicit different responses. The degree of response similarity depends on the degree of similar experiences. For example, the word "spook" may elicit fear-like autonomic responses to members of one family who have shared fearful experiences or, alternatively, feelings of fun or laughter in another family who have shared funny stories or jokes about "spooks". Since it is presumed that T-C responses show conditioning and reaction patterns similar, if not identical, to normal responses, the importance of shared responses to the same potential T-C stimulus would be an essential prerequisite for the phenomena to occur.

The availability of similar responses to the same stimuli should predictably reflect the frequency of reported T-C events between different agent-percipient combinations. The frequencies of agent-percipient combinations can be interpreted to support this statement. The most frequent (53%) agents were a member of the immediate family, with peripheral family and acquaintances showing 16% and 14% respectively. Strangers appeared in the role of agents least. As the degree of conditioning similarity decreases, so does the probability that a person will behave as an agent. One would expect that genetic similarities between two individuals would also affect agent-percipient probabilities. Identical twins show higher frequencies of T-C types of experiences than fraternal twins. Interestingly, sleep and dream patterns of identical twins

was given by a male of an experience that happened about 0230 one morning while he was participating in a dream experiment. He recalled that upon waking from a dream he was completely paralyzed; he "could not move a muscle" and sensed a "presence". The presence was not visible to the subject, yet he felt that it was a personality and that it was a threat to him. At this point he clenched his teeth in hopes of producing artifacts on the EEG records that were being taken. The next day the subject persuaded the attendent to look over the ECG (electrocardiographic) records of the previous night. Apparently, during the time of the paralysis the subject's heart had stopped for 10 seconds. He concluded that he had been under a psychic attack. Such periods of nocturnal akinesis have been associated with other unusual phenomena such as UFO "flaps", or mysterious "gassings".

Disorders of magnesium or potassium metabolism are correlated with a syndrome called periodic paralysis (Klein, 1969). This syndrome is characterized by episodic, flacid weakening to quadraplegia with minor masticator (jaw) movements still possible. Attacks are often accompanied by feelings of apprehension, and vague discomfort with occasional parathesia. One kind of periodic paralysis is also associated with sudden irregular beating of the heart (cardiac arrhythmia) and high amplitude EEG activity in the alpha-theta rhythm band. The predisposing and precipitating stimuli of this type of paralysis are situations of increased

activity followed by rest, fasting or emotional stress. These symptoms are markedly similar to those reported by the person who felt he was under psychic attack. The primary difference is the individual interpreted these signs according to a belief system other than that of medical science.

The nocturnal predominance of T-C and other paranormal experiences has been an impressive feature. There are also some medical syndromes that occur only at night. Usually it is assumed that they are state-dependent and require the preconditional dominance of the parasympathetic nervous system. The manifestation of complex autonomic-brain disturbances may influence more of the human population than we expect. They would not be often reported because of the relative infrequency of occurrence to, or misinterpretation by the individual affected. An example of such a syndrome is the micturitional syncope complex (fainting while urinating), an example of which was recently reported by Donker, Robles de Medina and Kieft, (1972). The following sequence of events were recorded. A 37-year old male subject sleeping in the laboratory awoke between 0100 and 0200 hrs and signified that he had to urinate. He started voiding, during which time there were no EEG changes. The ECG showed an increase from 72 to 130 beats per minute, which then dropped to 60 beats per minute when voiding was complete. At that moment theta activity and a few seconds later

high amplitude delta (1-3-Hz) activity appeared. The patient complained of dizziness, staggered and fell unconscious. However he regained consciousness, felt a slight weakness-tiredness, but could easily go back to sleep. Apparently these sequences only occurred during the night.

Note that the dominant prodromes of these autonomically related syndromes are slow-wave activity and cardiac arrhythmia which is followed by perturbations in consciousness. One must ask if these changes in consciousness might also in some instances be associated with amnesia effects or mental confusions that are associated with epileptogenic stimuli. Such periods of confusion or fainting might alter the ability to discriminate dreams from reality or to place experiences in temporal orders. Consequently, an emotional response to hearing the news of a loved one's death or the crisis of a close friend, might be incorporated in a later dream, whose real temporal order could be distorted. The position of the dream in the serial order of stimulus-response events may be recalled as occurring at the time of the aversive death-crisis stimulus.

The measurement of the alpha and theta rhythm activities associated with the above syndromes and experimental evidences of T-C must also be closely scrutinized. Alpha levels are related to thought-modes which seem to be associated with reported T-C. But increased alpha abundance is also associated with greater suscep-

tibility to hypnosis. People who are hypnotically susceptible show more alpha activity than other people (London, Hart, and Leibovitz, 1968). Recently it has been found that during hypnotic trance there is also a marked increased in activity in the alpha band (Ulett, Akpinar, and Itil, 1972). Deep hypnosis was especially associated with an increase in alpha wave abundance.

These are powerful data. Do they suggest that people with more abundant alpha rhythmicity and hypno-susceptibility are also more likely to distort environmental stimuli? Such individuals would more readily interpret an incidental or unrelated event as a meaningful part of their experience. In the spontaneous cases, there were many experiences which followed periods of redundant-boring stimulation, an optimal antecedent condition for the spontaneous induction of hypnotic trance. We have seen in demonstration and in the lab that recall of information obtained during hypnotic trances can be distorted with respect to both time and space of occurrence.

Furthermore, the dynamic influences of hypnotic-trance related behavior are not clear. Does this mean that a person who shows high trance-related alpha activity can influence the experimenter as well? There are anecdotal instances of experienced researchers "detecting objects during seances" that are not recordable by instruments. The experiences were quite real to these scientists and were recorded by them as such. Typically, these

experiences occurred when they were in the presence of other human beings who exhibited paranormal behavior so frequently that they were called "mediums" or "sensitives". If spontaneous and especially laboratory T-C are associated with hypnotic trance-associated and electrical changes in the subject, information of just how much these states can influence the experience and data recording of experimenters must be collected.

The final mode of T-C occurrence has been shown to be the dream or related state. Reports of paranormal detection of death and crisis of close family are replete in the literature. However, how often do we dream of death anyway? How often do we dream of our immediate family anyway? Could we explain away T-C phenomena purely as probabilistic reflections of chance occurrences which take on meaning to the individual after the event actually occurs? Comparable data from modern dream research may give some hint.

In 1819 dreams collected from 18-28 year old subjects (Hall, 1959), 43% of the people in dreams were strangers and only 19% were family. These percentages are not consistent with the FATE T-C reports where the primary person in the dream was from the immediate family 53% of the time and a stranger only 9% of the time. Normally men dream about females twice as frequently as they do males. With T-C experiences reported by males, the percentage of male and female agents are equal.

Emotionally disturbing dreams like nightmares occur during the later hours in the sleep-sequence while T-C dream experiences occur during the early periods.

Autonomically, there is a closer comparison between T-C experiences and normal dream experiences. Dreamers classify 64% of their dreams as emotionally negative or aversive and only 18% as emotionally positive. T-C reports are typified by negative experiences. Interestingly, the most common type of negative emotion for both T-C dreams and normal dreams is apprehension or fear instead of sadness, anger or excitement. Collectively, it can be seen that T-C dreams and experiences cannot be dismissed as probabilistic extension of normal dream content. However normal dream-T-C experience relationships are suggested when the similarities of emotional characteristics are considered. The exact mechanism responsible for these similarities remains to be established.

It was mentioned that shared experiences were important factors for agent-percipient probabilities in T-C behavior. Such shared experiences may explain T-C reports as simple elicitation of a similar responses by both the so-called agent and percipient to a third stimulus source. Experimentally, it has been demonstrated that members of the same family are very likely to use the same word in response to the same stimulus. Thus for example a mother and daughter may have had a similar conditioning history

such that the shrill of a tea kettle was followed by drinking tea and all the consequent visceral-conscious sensations. Suppose one day they are sitting in the kitchen talking, not listening to a commercial which included the noise of a teapot. The stimulus would elicit responses associated with wanting some tea in both of them at about the same time. One might say "Want some tea", and the other might retort in a surprised fashion that she was just thinking about tea. It is these types of "everyday little instances" that convince people there must be "ESP". Another example would be a mother and daughter who have shared experiences with romantic movies. They have often sat together while these movies were being played. The daughter grows up and moves away, but the conditioning is still there. One night both women are watching the late show. A romantic movie is shown, which elicits similar responses in both the mother and daughter as well as the memory that they used to watch such movies together. The mother decides to call the daughter, who hears the phone ring and immediately has the "impression" that it is mother calling. It is. They conclude telepathy has occurred. There is no doubt that many T-C experiences can be interpreted as a result of shared conditioned responses which are elicited by a stimulus that both putative agent and percipient are exposed to at about the same time. The mechanism does not require paranormal explanation.

Similar effects of shared response patterns to the same stimuli may be an important contaminator of many laboratory demonstrations of T-C. One such experiment, with results that detract from a paranormal explanation for the basis of laboratory T-C instances, was reported by Sanjar (1969). He exposed the agent to emotional stimuli and monitored the autonomic changes in both the agent and percipient by a GSR (galvanic skin response) device. GSR is a measurement of changing resistivity (or reciprocally conductivity) of the skin associated with emotional behavior. Sanjar found that, indeed, there were concurrent changes in both the agent's and percipient's GSR at the time the stimulus was presented to the agent. However, the concurrent changes were not significant when situational aspects such as prolonged seating and temperature changes in the room, were corrected. Thus even the impressive laboratory changes between agent and percipient, especially if they are related, may reflect nothing else but shared response patterns to normal fluctuations in temperature, fatigue and other stimuli of the every day environment.

Chapter V

PRECOGNITION

Introduction

Of all the types of putative paranormal events, precognition, popularly called "seeing into the future", is the most difficult to conceive. The measurable existence of precognitive experiences would alter our models of time and perhaps of space. There is enough difficulty in physical science understanding the nature of axiomatic qualities of mass and space and time. The mobility of human behavior in these first two dimensions is common sense and easily measurable. Movement in time seems impossible.

To contend with these fascinating and puzzling features of precognition, some scientists have dismissed it outright. Others have produced models which for pedagogical purposes are stimulating and image-provoking. However they have little place in our measurement world. Still other scientists have assummed that time cannot be distorted, and that consequently some other paranormal features are in existence. These men have invoked the mechanism of psychokinesis -- mind over matter -- to explain a foretold event. To them, an event is not precognized; it is caused by the person's psychokinetic effect upon the objects or persons involved in the event.

Superimposed upon the problematic models used to describe precognition are the difficulties of what experiences make a precognitive response. Do we use the criteria of Saltmarsh? Or do we look at each report on some arbitrary scale? Certainly a dream of a plane crashing which later crashes somewhere in the world is not a precognitive event. Does a pilot's detailed dream of the crash of a specific model of plane, with which he is familiar anyway, deserve more examination than a housewife who has a similar detailed experience and knows "nothing about planes." These are pertinent and important issues in precognition. Perhaps the data may give us new insights for their solution.

In this book, precognition and its variants are defined as: verbal behavior concerning a future event that could be foretold from neither the known operations of nature nor inferred from contemporary information.

RESULTS

Eight categories of precognitive experiences were differentiated. Of the 128 cases labeled as "precognitive" in this study, 32% (41) occurred as dreams while impressions, voices and apparitions were noted in 17%, 17% and 16% of the time, respectively. Omens (9%), smells (4%), another person's report (3%) and force (2%) filled the remaining categories. An example of the precognitive dream was reported in FATE 18:10, 54. On this

particular April night, the female O' was asleep. She reported a history of psychical experiences since the age of 11 yrs. In this case history, O' relates that in the dream her father-in-law and herself were driving in the country, during which time O' was hunting for the father-in-law but could not find what she was looking for. The next morning she told her husband that the father-in-law would not be around very long; in a week he was found dead of a heart attack in his car. Another interesting case was published in FATE 18:4, 57. This report, also taking place in early April relates the onset of a recurring dream where the female subject keeps dreaming that she wakes up crying, hears footsteps coming up the stairs and sees the local minister who tells her that the husband has been killed in a car crash. O' then walks across the room. According to the report, on April 22, O' heard a car drive up, exactly as in the dream, and was informed of the husband's death. Interestingly, she noted that she felt compelled to display the same behavior that she had in the dream. The subject also reports that she had begged the husband not to go on the night drive and had worried about him. The only characteristic related concerning the husband's behavior was that he was given to depression. A precognitive experience which involved a voice was reported in FATE 19 (3): 102 in which instance the male subject heard a voice tell him softly that north Oklahoma would win over Texas A & M. The voice was labeled as that of a dead cousin. An event which may have been

injurious to the reporter was mentioned in FATE 19 (9):58. This female high school student was on a hay ride in 1926. She heard a voice order "get your feet up". When she failed to respond, the second time it seemed to be stronger "Get your feet up". After the third call, the O' asked the voice why and it answered " a car will pass and strike right here". O' followed the voice's orders and a few minutes later a car ran into the rear of the truck splintering the place where the reporter's legs had been hanging and scratching the other people nearby An "impression" example is reported in FATE 20 (2):56. This female reporter noted that in the late winter of 1966 she was in the kitchen and experienced a deep feeling of depression and a pressure about her as if she was suddenly closed in. At this point an automatic gun was envisioned and the female O' felt something about the gun would happen. On March 9, the son accidently shot himself, but lived. Apparitions will be reported elsewhere in this book but for the sake of illustration a single precognitive-apparition case will be reported. In this case, a divorced female subject was attempting to sleep when she suddenly felt floating and heard a buzzing sensation inside of her head. A rose colored light lit up the room from the south window and the apparition of the O's mother approached. According to the description, the mother's apparition had its hands folded in front of it, with eyes wide open as in fright. It stated "someone close to me whom I love very much is about to be here with me". Apparently, the

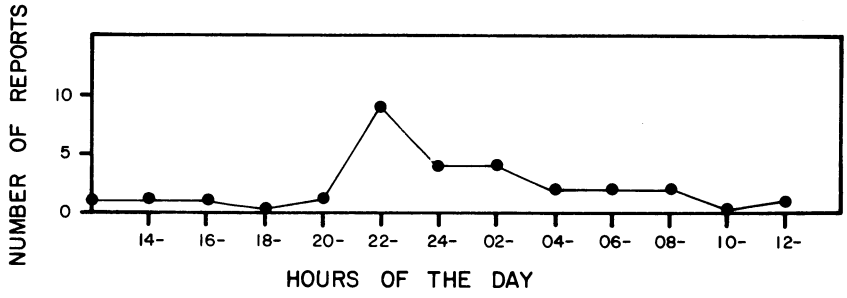
apparition was going to tell O' who was the unlucky party when she prayed to God to make mother go away so she would not know this knowledge. Two days later the twins of the O's sister died in a fire. The putative apparition of a scene which later occurred is noted in FATE 21 (8):64. The O', a 6 year old female at the time of the tentative experience was suffering from scarlet fever. She then saw her father come through the window over the sink with a present for his daughter (O'). When this event was related to the mother, the mother merely dismissed it as a dream and told O' that the father was not home yet. An hour later, the event happened, and the father entered the house in this unusual manner.

Omens, which included a vast number of stimuli which were later attributed by the reporter as predictive of a person's death or misfortune is best exemplified by this case. On the evening of December 11, 1962, a female O' was sitting watching the fire burning in a fireplace when she began to hear beautiful sounds come from the fire like birds chirping for about 10 minutes. The next day the brother died. The O' relates this experience as precognitive of the brother's death. Perhaps one of the more interesting and for sure less frequent types of manifestations of possible precognitive experiences was reported in FATE 20 (2):56. In this instance, the female O', just engaged, was at a dance. When she was about to leave, she felt seized by an invisible pair of arms and heard a voice say "go home". The

invisible force then pushed her against the home door and a voice stated "stay here". That night the O's girl friend and date were killed in a head-on collision. Quite probably, O' would have been in the car had the force not interrupted her.

Time: Space. Of the 104 cases which supplied time information, 70% occurred during the night while the remaining 30% occurred during the day ($X = 16.9$; $p < .01$). More precise time of day data is noted in Figure 5. As can be seen there is a marked increase in the time of reported events around 2200-0200 hrs. The monthly occurrence is also quite interesting and is reported in Figure 6. When seasons were analyzed, it was found that out of the 95 reports which specified the season, or month, 32% occurred in the winter months, 25% in the spring months, and 21% in each of the summer and fall seasons. This difference was not statistically significant however.

Analysis of distribution of these events throughout the U.S. demonstrates no obvious relationships which could not be attributed to simple biasing of FATE distribution factors. In terms of specific localities, 70% (90) of the reports were in the home while places outside housing structures were noted 24% (36) of the time and public places 6% (8) of the time. Again the number of experiences reported in the home were quite significant ($p < .01$). Of the places in the home mentioned, 67% (60) supposedly were experienced in the bedroom or sleeping areas. A relatively high proportion (21%) of these



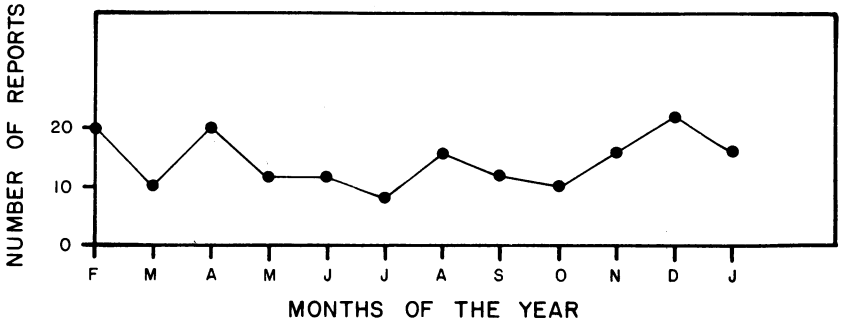


Figure 5. Number of reports of possible precognitive experiences as a function of the time of day of occurrence.

Figure 6. Number of reports of possible precognitive experiences as a function of the month of occurrence.

cases, reporters did not specify the location. The remaining home areas were the kitchen and living room. In situations where the O' was outside, 25% of the time he was in a car or moving vehicle.

Sex of O': As in the T-C reports, again there is a predominant female population in the report of precognitive experiences. In fact 89% of the 71 cases where there were definite human beings involved in the precognitive event, the female was the reporter. Situations where the female was the possible percipient and the male an agent occurred 51% (36) of the time. Female-female combinations were apparent 38% of the time. Male-male combinations of A' and O' occurred 11% of the reports while not a single definite female (agent), -male (percipient) case was reported in the cases sampled. Forty-one or 32% of the cases dealt with events more than specific human beings, although no doubt human beings were involved. In these cases, the female was again the predominant reporter, scoring 30 or 73% of the total cases. Cases which involved more than one agent or percipient occurred in the remaining 13% of the cases.

History and Behavior of O'. Only 4% of the subjects in this category reported any previous experience with psi-experiences. At the time of the experience 43% were asleep and 57% were awake. Of the 43% (55) who were asleep, 78% reported dreaming while the remaining 22% did not mention this activity.

Eight (20%) of the dreams were reported to be recurrent, although the specific number of repetitions was not given. Of those subjects who were awake before the P, 20% definitely stated they were engaging in automatic behaviors such as dish-washing, sewing, etc. and that their "mind was wandering".

The phenomena. As noted with T-C reports the tentative precognitive events involved several sensory modalities and formats of expression. The main event was death which occurred as a major thesis in 48% (62) of the cases. Crisis, accidents, etc. were about 41%. Mundane categories which included horses winning, money, lottery, places for vacation spots, etc. were apparent in 11% of the cases. Of the types of death which were "seen as occurring in the future", 70% dealt with what was surmised by the subject as unexpected. Interestingly, 49% (21) out of the 43 deaths which were unexpected were attributed to natural causes. The remaining types of death were auto accidents, murder, explosions, landslides, fires, drowning, etc.

In the cases where the so-called precognitive event dealt solely with the survival of the reporter himself, that is, in 23% of the total cases, the O' avoided injury as a result of "having this foreknowledge" in 29/30 cases. In these cases, the time between the experience and the event which may have killed or injured the O' is merely a few seconds in 50% of the cases and within a few minutes in 77% of the cases. A "voice" was the stimulus which influenced O's behavior in 59% of these

30 cases. The most frequent events or aversive consequence of events avoided due to the "foreknowledge", were car crashes (33%), tornadoes-lightning-earthquakes (23%), with the remaining cases pertaining to plane crashes, gunshots, sinking ships, bridge collapses, trees falling, cave collapse, quicksand, and sickness. The times between the putative precognitive experience and the actual occurrence of the event for those total cases in which the relevant information was reported are shown in Figure 7.

Thirteen percent of the events occurred within 30 seconds of the precognitive experience, while 24% took place within an hour. Within 12 hours 39% of the cases took place and by the time 24 hours had elapsed, 50% of the events precognized had been presumed by the reporter to have occurred. As can be seen in Figure 7, 63% of the cases occurred within 3 days. Figure 8 demonstrates that 69% of the events took place within a week and 85% had been observed within a month. Only 9% of the total cases involved experience-event time lapses greater than one year.

Relationship: In those 98 cases where the precognitive event was not about the O' himself, but about some other person, 67% of the times it was concerned with a member of the immediate family, with the mother, son and husband being most frequent. Only 18% of the cases dealt with events concerning peripheral relatives such as grandmothers, grandfathers and cousins. Acquaintance-friend relationships took up 14% of the cases while

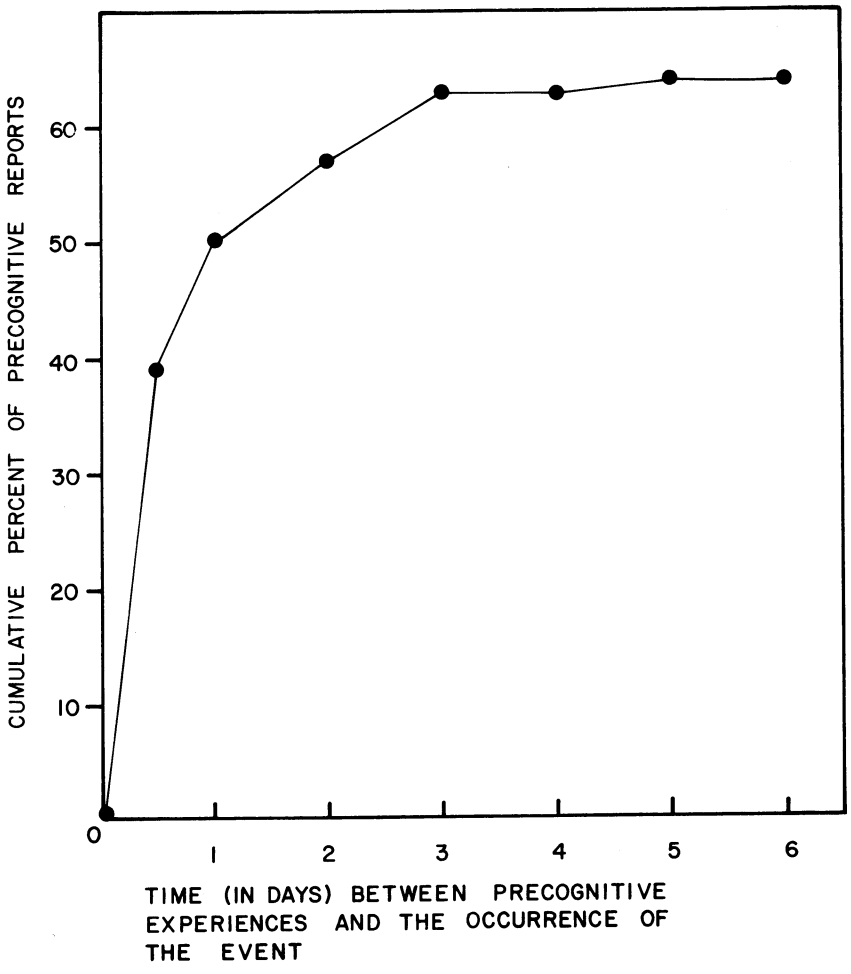


Figure 7. Cumulative percent of precognitive reports as a function of time (in days) between putative precognitive experience and occurrence of the event.

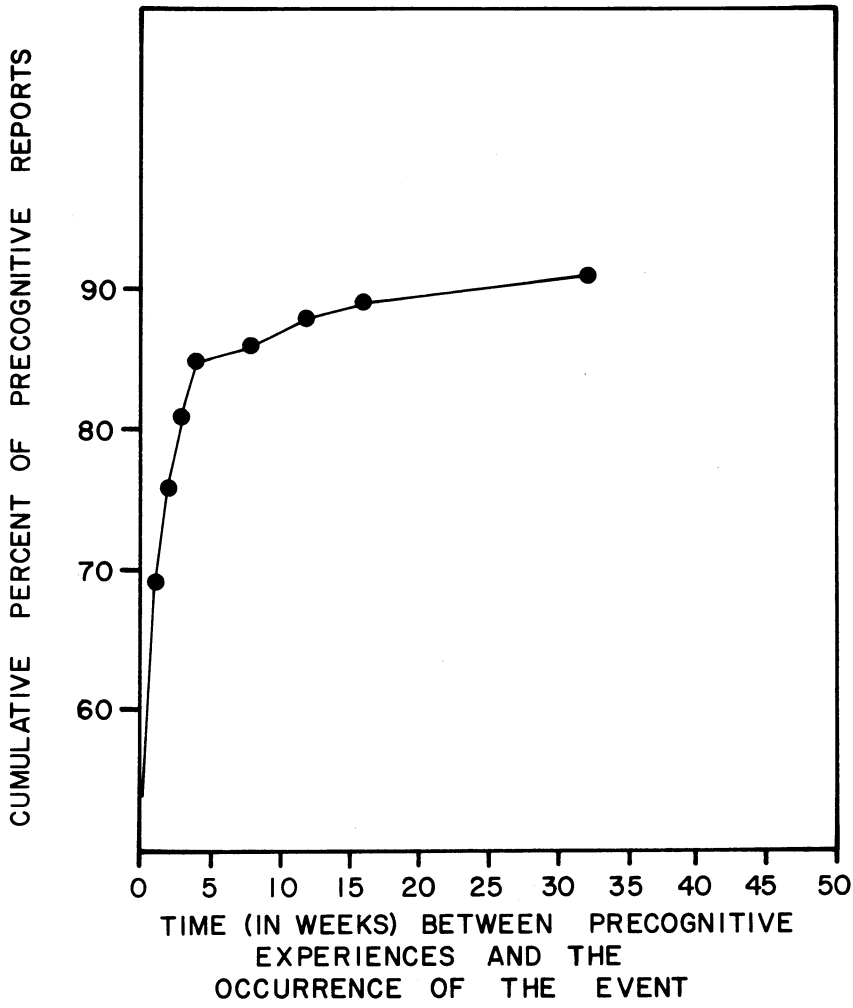


Figure 8. Cumulative percent of precognitive reports taking place as a function of the time (in weeks) between the putative precognitive experiences and the event.

strangers, at least in this sample, are only mentioned in 1 instance.

DISCUSSION

Summary of results

From the above data, the following patterns were evident about verbal reports concerning "precognitive" experiences:

1. Experiences were reported to have occurred at night in 70% of the cases.

2. There was no significant tendency for precognitive experiences to occur in a specific season, although there was a slight tendency for them to predominate during the winter months (32%). The other seasons ranged from 21-25%.

3. The home was the specific locality of the experiences 70% of the time; 67% of which were in the bedroom.

4. In 89% of cases where the event involved a human stimulus (68%), a female was the percipient.

5. Experiences occurred during sleep in 43% of the cases; dreaming being reported 78% of the time.

6. A recurring precognitive dream occurred 20% of the time.

7. There were eight modes of reporting the experience, as: dreams (32%), impressions (17%), voices (17%), apparitions (16%),

omens (9%), smells (4%), another person's report (3%), and a force (2%).

8. The main event was death in 48% of the cases.

9. In 23% of the cases the event precognized was concerned with the dreamer himself.

10. The time between the precognitive dream and the occurrence of the event was 24 hours in 50% of the cases, and within 21 days in 81% of the cases.

11. In cases where the precognitive event was not directly about the dreamer, 67% were concerned with members of the immediate family.

Comparison to other data:

Sidgwick (1888), Saltmarsh (1934), Green (1960), Rhine (1954), Sannwald (1963) and Stevenson (1970b) have collected and analyzed reports of so-called precognitions. Most of these experimenters selected only specific aspects of these cases for analysis, such as dream or non-dream state at the time of the experience. As a result much of their work cannot be compared directly to the data in this book. However, where comparisons were possible, some interesting similarities were apparent.

Death as a major theme of the precognitive experience was reported in 35% of the cases by Saltmarsh, 43% of the cases by Sannwald and 47% of the cases by Stevenson. Analysis of the

precognitive experiences from the FATE reports showed death as a central theme in 48% of the cases. Accidents-illness and crisis incidents filled 26% of the Saltmarsh series, 21% of the Stevenson reports and 37% of the Sannwald reports. In the FATE reports, crisis events filled 41% of the cases. Of the death themes, 73% were natural and 17% were violent in the Saltmarsh data, while 71% were of a violent nature and 28% of natural causes in the Stevenson analysis. The FATE reporters indicated that the death was natural in 49% of the cases, midway between the other two studies on this measure. The relatively higher number of crisis situations in the FATE reports most likely reflected the publication selection. Weird or autonomically (emotionally) invoking experiences are more readable than simple events which can be dismissed as chance occurrences. Other selection criteria were used for these studies as well. Why there was such variation between reports in the method of death (violent vs. natural) for the agent in the three studies compared, was not clear.

The predominance of the dream condition during or just before a putative precognitive experience has been a major reported feature. Experimenters have reported the following percentages of times in which precognitive experiences were coincident with dreaming: Sidgwick (66%), Saltmarsh (68%), Green (68.8%), Rhine (68%), and Sannwald (60%). In the present

study dreaming was reported in only 32% of the cases. However if one selects subjects who were sleeping before they were awaken by stimuli from the experience, dreaming was reported 78% of the time. One source of the discrepancy was quickly seen in the categories selected. The FATE precognition reports were differentiated into eight different categories, while at most the other analysis differentiated only dreams, borderline states, impressions, or hallucinations. Some of the studies merely differentiated dreaming from waking states. The different categories selected by various experimenters were not mutually inclusive. Thus, for example, the mode of apparition could conceivably have taken place while the person was dreaming or while he was awake. A dichotomous division based purely upon dream vs. waking state would not discriminate the reports of apparitions in the same manner. Category preferences of the analysts and individual case selection biasing by different experimenters could certainly lead to inconsistent results when compared.

Data on the time interval between the precognitive experience and the actual occurrence of the event precognized, showed that the majority of the events occurred within 24 hours of the experience. In the present study 50% of the cases showed experience-event time-lapses of 24 hours or less. A direct comparison can be made with the data on the Aberfan disaster collected by Barker (1967). He reported that from 34 descriptions that he evaluated as "premonitions", 53% occurred within four days of

the event and 76% occurred within two weeks of the disaster. The FATE data showed that 63% of the precognitive experiences took place within four days of the event (usually a death), and 76% showed experience-time lapses of two weeks or less. Barker's data was presumably documented before the disaster occurred, yet the correspondence between his data and the FATE reports is most striking.

The counting of the number of times a response occurs can often be used to determine the duration of the stimulus. Depending on the contingencies, the number of responses increase with increasing presentations of the stimulus, to a limit. The recurrence of a dream or the report of a precognitive dream repeating itself, may suggest that the stimulus responsible for the responding was presented for a considerable duration of time. T-C cases rarely show examples of repeated responses, perhaps because of the nature of the phenomena. They deal with situations which are occurring more or less at the same time. In the present study, 20% of the precognitive dreams were reported to have shown recurrences before the event dreamed about took place. Stevenson found that 14% of the 125 precognitive dreams which he analyzed showed two or more repetitions with little variation in content or sequences. Unfortunately there is no data available on how often non-precognitive dreams show

repetition, or if it is the very fact that the dream is repetitious to begin with that results in the dream's meaningfulness to the individual. We are conditioned to respond to consistencies in our everyday environment due to the repeated pairing and occurrences together of various events. The repeated dream sequence to the individual, just because it is repeated, may induce those private sensations we call anticipation or anxiety that are associated with the interval between a conditioned stimulus and an aversive-pain event. The role of anxiety on the recall of memory of events can be manifested in memory distortions and disruptions of other **interpretive** functions in human behavior.

Unlike the Stevenson data, only 23% of the total precognitive cases dealt primarily with the dreamer himself. Stevenson's data shows a percentage of 49%. However comparisons are noted between the FATE and Stevenson's data in those cases where the precognitive experience is not about the dreamer himself. Recalculating the Stevenson data, it can be seen that 61% of the dreams involved close relatives, 22% involved friends and acquaintances and 17% involved what was recalled as "strangers". The FATE reported precognitive experiences involved the immediate family in 67% of the cases, peripheral family in 18% of the cases, acquaintances and friends in 14% of the cases and strangers in only 1% of the experiences reported. Like T-C experiences, the emphasis on the family is characteristic.

Possible mechanisms:

Considerable discussion will be given on the mechanisms of precognitive experiences both in terms of known and extended processes of nature in the last chapter. However before these are considered, other hypothesis concerning the explanation or understanding of these reports should be exhausted. As early as 1888, Sidgwick reported the possible options with which one has to explain precognitive reports in terms of known behavior. These included effects from fraud, memory distortion, chance, coincidence, self fulfillment of prophesy and hyperacuity. The role of chance and coincidence are obvious and too often taken for granted, since they can be unrealistically amplified depending on the context in which they occur. If you have a vivid dream about death and nothing happens, you are very likely to forget it. You may even have hundreds of such dreams in a life-time. However if within an optimal reinforcement period, e.g., within 24 hours, the stimulus event death actually occurs, then the dream is increased in response strength significantly and the person remembers it. This is especially true if the reinforcer, in this case death, involves emotional concomitants. Such instances of "one trial learning" is a common feature of usual behavior.

Fraud is always a problem in data collection both inside and outside the lab. The mechanisms responsible for lying and fraudulent behavior are in themselves, interesting, but beyond the

scope of this text. Memory distortion, much too often ignored, has been discussed earlier as a possible mechanism for other paranormal behaviors. Self-fulfillment of prophesy is another potent source of behavior which could result in a precognitive experience, especially if the experience happens to the person who predicted it. The mechanism for "self-fulfillment of prophesy" seems closely tied to a person's beliefs and values. Beliefs influence not only what we think but what we perceive in the environment. Belief is important in psi-phenomena and is the apparent source for the sheep-goat effect reported by Gertrude Schmeidler. She found that those who believed in ESP, had significantly more card guesses correct in an ESP situation (T-C), while those who did not believe in ESP, scored significantly below chance. Other experimenters replicated her results. If "what one thinks should happen" can influence something so subtle as laboratory psi-response, then one must consider the wide spectra of behaviors that may be affected, "consciously and unconsciously", in everyday life. Recent progress in psychology has allowed us to see that behaviors like accident proneness, slips of the tongue, and other small aggressions toward both ourselves and others, are a direct consequence of our reinforcement history. That reinforcement history is reflected in what we "feel" and internally experience as beliefs.

As Sidgwick originally suggested, the above hypotheses

must be exhausted before one can conclude that some type of "time-distortion" has occurred. There is sufficient theorizing and word playing on this issue in other books and so it will not be considered here. Another possibility, however, must also be eliminated. Can the precognitive experience and the event be considered responses to the same stimulus? In other words can the stimulus which produces the actual event also produce the private experience, with the private experience occurring earlier in the sequence. In the FATE reports of this chapter a significant percentage of the reports occurred within a few minutes. Could it be that the stimulus which produced the observed event antecendently influenced the observer's behavior? To use an analogy, in the past it was once feared that St. Elmo's fire caused lightning and death because the one preceded the other. Actually both were caused by the extremely high intensity local electrical gradients. The electrical gradients could not be seen by the observer. However, the fire and the lightning could be seen and hence a direct serial and causal link was made. Similar serial links occur between thoughts and events independently produced by the same stimulus. That at least a good percentage of precognitive experiences are the subtle detection of a stimulus which is also about to produce the observable effect, has been discussed elsewhere (Persinger, 1974).

Chapter VI

APPARITIONS

Introduction

Apparitions will be considered as a special class of visual behaviors for analysis since they are frequently reported and their descriptions are usually given in such detail that considerable information can be gathered about their characteristics. Apparitions are reported to be forms of people, animals or scenes that are perceived in the reporters' apparent locality by processes that are not known to date. Sudre (1960) specifies the term "telergy" as the objectivation of forces, while "teleplasty" is the objectivation of forms. Often the term "materialization" has been used to describe an apparition. The implications of these terms involve the actual formation of matter in the presence of the perceiver. Since measurements of materializations have not been done under presently acceptable criteria, these terms should be used cautiously. Phantasms, noted by Gurney, Myers, and Podmore (1886), is also a synonym for apparitions.

RESULTS

The author differentiated what can be interpreted as five patterns, or categories of the putative 193 reports of apparitions. These categories and their percentages of occurrence relative to the total number of cases were: post-mortem apparitions (58%), crisis-healing apparitions (13%), retrocognitive apparitions (21%), precognitive apparitions (6%), and wish-doubles (3%). Post-mortem apparition cases seem to involve the reported appearance of the person at the time he was dying or after he had died, some miles away from the percipient. An example of this type of case was noted in FATE 19 (12):112. The female subject, during WW II, was in bed one night, but having considerable difficulty sleeping. Suddenly her husband (who was at war) appeared, sat on the bed and rested his head in his hands. The subject, "frozen", unable to move, watched the apparition of her husband. The apparition then looked in her direction, and said "Oh dear, Oh dear" and disappeared. Later O' found that her husband had been killed in battle.

Crisis-healing apparitions were added together since the critical stimulus operation seemed to involve either a critical or traumatic situation relating to the agent or percipient. In all of the healing-type apparitions (4%), there was a disease crisis, with respect to the O'. The apparition in these cases, which was given credit for O's recovery, was reported as either

a spirit doctor or Jesus. In other crisis situations the observers reported seeing what they interpreted as an apparition that saved their lives by giving specific information. A situation in which the putative agent was in a crisis situation was reported in FATE 19 (3):54. In this instance the female O' was combing her hair in the mirror, when she saw her father's face in the mirror also. He had no glasses on (unusual behavior for the father) and a cut over his eyebrow. During this appearance, O' reported feeling "goose bumps". Later it was found that the father had been in a car crash at the time of the daughter's later reported experience of seeing the apparition in the mirror.

The retrocognitive apparitions involved what has been called "distortions in time" or "recurrence of events". In these cases, the past is reported to be seen. Popularly, such experiences are termed haunts, are localized to a particular spatial area and involve a dead human. Interestingly a very striking dichotomy was apparent in the verbal reports of this type of apparition. Sixty percent (60%) of these cases involved what in the vernacular would be described as the classic haunt. These involved apparitions usually occurring inside a house. The description of the haunt apparition, when it was seen by different people or the same person twice, was not always the same. The remaining 40% of the reports (retrocognitive events) occurred more often outside of houses, and, regardless of the

number of times seen by the same or different observers, the sequences of events were described in a strikingly similar manner. A classical "haunt" case was described in FATE 28 (16):5. The O' was suddenly awakened and felt her eyes drawn downward. A grinning man was leaning against the dresser. The apparition wore a black coat and white rag about his head. The observer asked "What the devil are you doing here?" and reached to turn the light switch on. The apparition disappeared. A similar example of what has often been termed a haunt is given in FATE 21 (2):91. In this situation the subject was sitting in the living room and saw a dark shadow to the left of the chair out the corner of her eye. She saw, however, nothing when she looked straight on at the putative shadow. Later, she saw a dark form misty except for the face with the hands and palms clearly visible, including "claws" pointing down. During this period the O' reported feeling hatred. In contrast to these classical "haunt-type" events are those which seem, according to reports, to involve events which happened and are a matter of record. These retro-events involved such sightings as covered wagons, fights, the death scenes of human beings, a train that had not run for many years, rennaissance horses crossing the road or even the occurrence of an ancient Indian ritual. FATE 20 (1):101 reported the experience of a man who has repeatedly seen the same scene of two men jumping out of a WW II type cab, and beginning to fight. One of the men, each time, throws down an

empty Lucky Strike pack. Then the scene fades. The reporter notes that the event seems to take place on a Sunday in the spring and that other people have seen this event or the cigarette pack. Supposedly this event actually took place around 1938. Similarly a subject reported in FATE 20 (8):101 that while walking her dog one night along a creek bed she noted that the dog stopped suddenly. Ahead of her she saw a tall pole with cloth strips. Near it a buckskin-dressed Indian was strangling a white dog. Other Indians were gathered about the campfires; drums and tobacco smoke were noticed. Later, the O' reports, she found out that this was a depiction of the Seneca New Year Jubile ceremony that had last taken place, according to record, sometime around 1841.

So-called "precognitive apparitions" were interpreted as "warnings" to events that occurred sometime later. FATE 18(10): 57, recounts the report of a female who, while sitting down working at a repetitive task (quilting), felt her "eyes suddenly drawn" to the door of the kitchen. There she reports an apparition was standing. Upon looking back to the vicinity, O' found that the apparition was still present. O' concluded from this that her ailing mother-in-law, who was in the house at the time, would die. This happened two days later. A similar case (FATE 19 (3):54), also reported by a female subject was reported to have occurred around 0200. The subject stated that

she awoke to find two handsome oriental looking men dressed in oriental costumes. One of the apparitions said:"we have a message for you about your son. The time is 8:28 and the date is June 22". O' asked them to wait, but they smiled and walked through the door. On June 15, a week earlier than the information given by the apparitions, O' received a call from the doctor that her son was unconscious from a motor cycle accident; the call was received at 8:28. The reporter explained the apparent discrepency between the apparitional information and the actual event by noting that the Egyptian calendar was a week early, compared to our presently used calendar. The most infrequent type of apparitional reports, were the wish-double types. These did not involve any obvious emotional event. An example of each of these reports is a young girl who simultaneously saw both her mother and the exact image of her mother some distance away (18 (2):78), and a mother who saw her daughter, who was some miles away at school, standing in front of her one early morning. In the latter case, the daughter reported that she was wishing at the time that she could be at home.

The detailed analysis of apparitional cases will be limited primarily to the post-mortem classifications since this group contained the majority (58%) of the total 193 reports. Time of occurrence and sex of the reporter will be differentiated according to post-mortem cases, others, and total classifications. Detailed analysis of the other four categories: crisis-healing

retrocognitive, precognitive and wish-OOBEs, each seeming to involve different stimulus operations, will not be attempted since the number of cases in each category would not allow reliable conclusions assumed to be characteristic of categories with greater number of cases. Consequently, the presentation of reporter's behavior and other aspects of the analysis will be limited to post-mortem cases only. When there is a marked and very obvious discrepancy between these cases and the other categories, comments will be made.

Time: The monthly occurrence and time of day of the reported post-mortem, and mixed (crisis-healing, retrocognitive, precognitive, and wish-OOBEs) apparition experiences from the FATE sample are shown in Figures 9 and 10. A marked increase in post-mortem type cases is reported to have occurred in June. In terms of seasons, percentage of reports for post-mortem cases were: summer: 36%, fall: 21%, winter: 24%, and spring: 19%, while the mixed cases were summer: 39%, fall: 15%, winter: 26%, and spring: 20%. These differences according to chi-square were not statistically significant (X^2 = 5.80 and 6.89, respectively, $p > .05$). Time of day values also indicated important differences in time of reported experience of the apparition. As noted in Figure 10, there is a considerable peak between 0200 and 0400 hours, with, interestingly enough a smaller peak at between 1400 and 1600 hours, a separation of 12 hrs. In terms of day-night 75% of the post-mortem cases occurred during night time hours with 25% during the day. The mixed cases showed a distribution

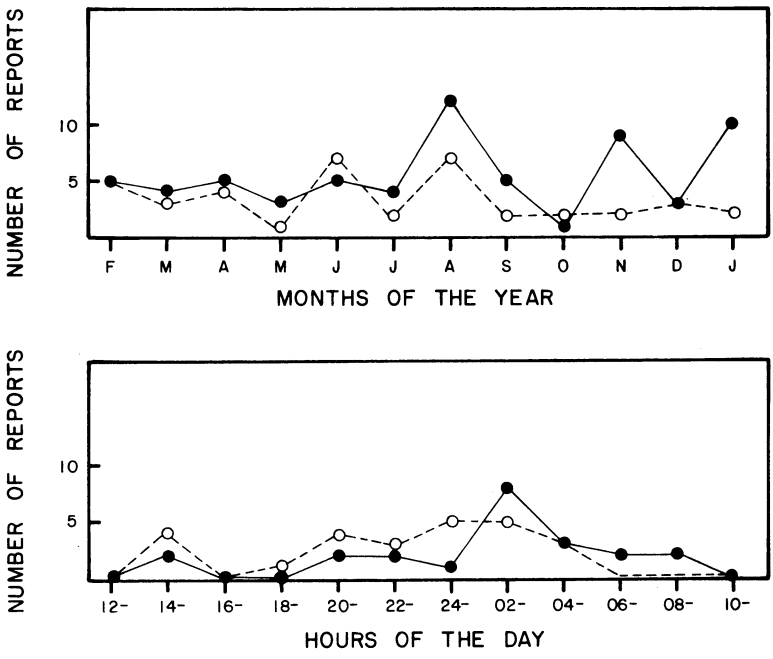


Figure 9. Number of reports of apparitions as a function of month of occurrence (post-mortem apparitions ●——●; all other apparition types 0-------0).

Figure 10. Number of apparition reports as a function of the time of day of the "experience" (post-mortem apparitions ●——●; all other apparition types 0---------0).

of 79% for night periods and 21% for day periods. The chi-square values for post-mortem and mixed groups for day-night time of occurrence was 22.50 and 21.88, respectively, a significant ($p < .001$) value.

Sex: The sex of the percipient in the post-mortem cases was female 76% of the time while the male sex was involved 24% of the time. Similar percentages were noted in the mixed cases where the female was the reporter 66% of the time while the male reported the percipient role 34% of the time. The differences between sexes was highly significant with the post-mortem cases ($X^2 = 28.02$, $p < .001$) and less but still significant with the mixed cases ($X^2 = 8.71$, $p < .01$).

Area: The specific geographical area of the reporters of the PM apparition at the time of the event did not show any unusual distributions. Again, as in the other psi reports, the majority, that is 88% were said to take place in the home, while only 5% or 7% took place in public places or outside. The exception to this tendency was noted in the retrocognitive cases that seemed to involve the recurrence of past events. In none of these cases was the O' inside the home at the time of the reported experience. Instead he or she was either outside or in a car. Of those PM cases, however, that did occur in the home, 62% (56) were in the bedroom, 12% in the living room, 3% in the kitchen and 23% in other areas of the house. Other areas included stairways

doorways, closets, hallways, cellars and other less frequently used areas. Again the majority of possible experiences were reported to occur in the sleeping area ($X^2 = 71.14$; $p < .001$).

Behavior of O': One hundred and three (103) of the PM-apparition reporters specified their behavior at the time of the experience. Of these 59% (59) were asleep in the prone position, while 22% (23) were sitting, 11% were walking and 10% were standing.

One interesting and repeated statement of Os who were sleeping before the onset of P was that they "suddenly awoke". Of those which specifically reported how they awoke, 66% used this phrase or a similar statement. Only 4% of those who were sleeping at the time before P reported that they awoke in a groggy or sleepy manner. The subjects who were awake before the onset of P also pointed out specific antecedent private behaviors and events 44% of the time. The most frequently reported antecedent "feeling" was that of a presence (45%), with categories of sounds (18%), and the O's name (18%) being followed by less frequent forces, chills, voices, and scents. Eighty-seven (87) of the subjects reported their specific behavior immediately after they saw the apparition. Those Os who looked around or sat up and looked around comprised 52% (45) of the reported cases of this category, while 36% of the subjects

said they just looked up (usually reading a book or sewing, etc.) and saw it, and 11% noticed some movement first out of the corner of the eye. Only 1% of the reporters state that they saw the apparition form.

Description of P: One very apparent consistency in the reports was that the apparition was solid; this was reported 85% of the time. The condition of being fuzzy or transparent shared the remaining 15% frequency of occurrence. Another striking tendency for the apparition was for it to appear, for those Os who were in a bed lying down or asleep, beside the bed (44%) or at the foot of the bed (27%). Together, the sight of the apparition near the bed or within approximately 1-8 feet of the reporter occurred in the reports 71% of the time. The remaining cases stated that the apparition was standing in the corner of the room (14%), in the doorway (9%) or some other location. The observed behavior of the apparition was divided into categories according to essential differences in stimulus patterns. Only 42 of the observers made reference to the specific behavior of the apparition. Of these the most common report was of the apparition "appearing, smiling, and disappearing". This occurred, apparently, at least 34% of the time if one includes the cases of those who did not report any behavior of the apparition and 43% of the time if only those cases which do report the behavior of the apparition are counted. Other

basic behaviors of the apparition were: smiling, nodding and then disappearing (10%), "no expression" (14%) and beckoning (4%). Behaviors such as "trying to get O's attention", "walking past O'", sad expression, "mad look", "terrified look", "peaceful look", "pale look" and "covered with blood" were reported, however each being less than 5% of the time.

The dress of the apparition was reported by 34 reporters; 70% of the reporters did not specify any specific dress or description of the apparition. Of those 34 subjects who did report what the apparition was wearing, 44% (15) specified "usual clothes", 24% "a white gown", 12% "burial clothes" with a suit or death clothes splitting the remaining percentages. At least 14% of the viewers of apparitions noted that the apparition looked younger, especially if it was the mother or father. Unfortunately 95 of the 114 cases did not specify anything about this descriptive variable. If we consider only those cases where some comment was made about the appearance of the apparition, 64% say the apparition was younger looking, while 36% write that it was the same.

Did the apparition talk to the O? Vocal communication from the apparition was reported by 49% of the total PM cases. Of those 51 cases, 72% were short phrases of 25 words or less communicating such information as "I am dying", "don't cry", etc. The remaining 27% of the conversations with apparitions were apparently quite lengthy and involved. However less than 5% of the total reporters note that the apparition made any tactual or touch contact with them.

The position of the apparition was also highly biased towards standing still. In fact 53% (62) of the apparitions were apparently standing, with only 17% walking and 12% running. Responses such as floating, brushing hair, etc. were each reported less than 3% of the time. Glows around or associated with the apparition was specified by 20% of the total reporters of PM apparitions. Unfortunately 75% of the cases did not mention anything concerning this variable. In terms of background upon which the apparition was superimposed, 86% definitely point out that it was the same as before and after the apparitional appearance. Of those 14% of the cases where the background was different, the descriptions included "illuminated circle", "golden gates", "battle field", "blue sky", "port-hole through which could be seen green hills and a cottage", "picture-frame-like ground"., etc.

How the apparition disappeared apparently showed some consistency. Terms such as "quickly" were used 74% of the time, with "slowly", "through door in usual manner" and "through wall" reported 11%, 3% and 6% of the time, respectively. The remaining percentages dealt with the O' leaving the situation, in haste. Although only 69 of the reporters noted the immediate circumstances preceding the apparition's disappearance, 69% note that it left by itself, with 21% disappearing when O' attempted to touch or talk to it. The remaining 10% apparently disappeared when O' looked away.

Multiple apparitions, which involved the "appearance" of more than one "person", were described in 7 of the total cases. Although the total number of retrocognitive (non-haunt) cases were much too small to make any strong conclusion, it is worthwhile to note that 38% of these cases involved more than one apparition of a person. In terms of multiple observers, 18% of the PM cases claim that another person also saw the apparition. This claim of other observers was stated by those experiencing retrocognitive experiences 20% of the time; these ancillary observers reported the recurrent scene in a similar manner.

The relationship of the putative apparition to the observer has been shown to be an important variable both in the T-C and other reports. It was noted that in 47% of the cases the immediate family was involved while in 22% of the time in-laws were the apparition. Friends-acquaintances appear as the apparition 18% of the time with strangers or unidentifiable people filling the remaining percentages. Animals were seen 10% of the time. Excluding the animal subjects, it was noted that 55% of the individuals seen as apparitions were dead or dying at around the time of the experience. Of these, 82% were due to sudden causes, not anticipated by the reporter. The sudden causes, from most to least frequency of occurrence, were:

car crashes, sudden natural causes, heart attacks, war-casualties, disease, old age, suicide, plane-crashes, murder and household accidents. The time in days between the observation of the apparition and the death of the individual whose apparition is reportedly perceived was reported in 89 cases and is shown in Figure 11. As can be seen the time delay between the death and the appearance of post-mortem apparitions is four days or less in 60% of the cases. More than a quarter (28%) of the death-apparition time intervals were 24 hours or less. By the time a year had passed, 86% of the PM-apparitions had taken place. Time delays of up to 40 years were reported between death and apparitional appearance of that individual, however. Other information from the analysis sheets will not be reported due to lack of appropriate number of details.

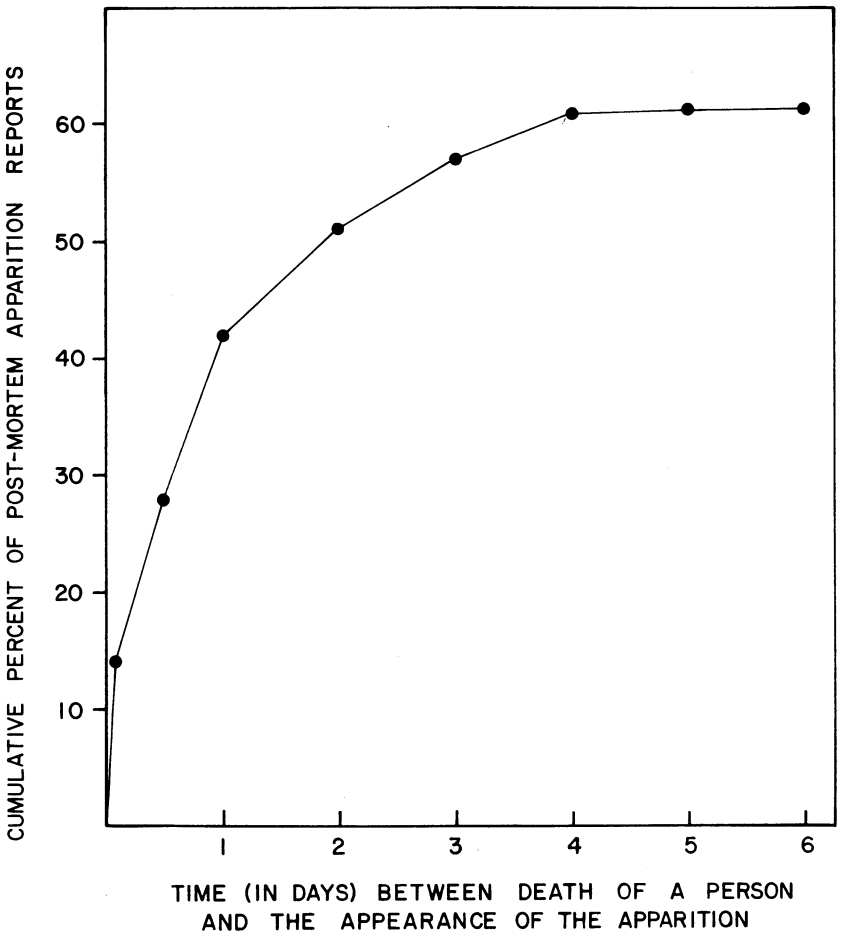


Figure 11. Cumulative percent of post-mortem apparition experiences reported as a function of time (in days) between the death of a person and the supposed appearance of his "apparition".

Discussion

Summary of results (PM-apparitions unless stated otherwise)

The following patterns were noted in the 193 reports of experiences defined as "apparitional behaviors":

1. The majority of apparitions were post-mortem (PM) classifications (58%), with crisis-healing, retrocognitive, precognitive and wish-projections filling the remaining categories.

2. The majority of the apparitional experiences occurred in the summer season.

3. Night time distributions were still dominant (75%).

4. Females still reported the majority of the experiences (76%).

5. Post-mortem apparitions were experienced more indoors within the bedroom, while retrocognitive apparitions occurred out-of-doors.

6. Specific antecedent experiences before the apparition was seen were reported in such terms as "suddenly awoke", "feelings", etc.

7. The majority (71%) of the apparitions were interpreted as occurring in the peripheral bounderies of the bed area.

8. The most common description of the apparition was appearing, smiling and disappearing.

9. Vocal communication from apparition occurred in one-half of the reports.

10. Less than 5% actually report seeing the apparition form.

11. The apparition was reported to disappear quickly in 74% of the cases.

12. Again, almost half of the apparitions were presumed to be members of the immediate family.

13. More than half (55%) of the apparitions were supposedly dying at the time of the reporter's perception.

14. More than half (60%) of the apparitions occurred between the death and three days later.

Comparisons to other data

Perhaps the most well known text concerned with visual experiences associated with parapsychological reports is Apparitions, by G.N.M. Tyrrell. Actual research in this area has been limited, because of the obvious difficulty in experimentally simulating the phenomena. Statistical models for determining "telepathy" in the laboratory is one thing, but producing apparitions, with the exception of hallucinogenic sources, is a problem of a different caliber.

Tyrrell's book is a collection of cases with occasional reference to mechanism or theory. There were no statistics, analysis or attempts to find patterns. Despite these limitations, the similarities between Tyrrell's data and the FATE reports are impressive. Tyrrell manages to differentiate four classes of

apparitions: post-mortem, crisis, ghosts and experimental cases. He arbitrarily defines post-mortem as apparitions of individuals more than twelve hours after death, while crisis categories include those apparitions which occurred between the apparition-provoking incident and twelve hours later. In the present analysis the criteria used for crisis apparitions were occurrences within 15 minutes of the putative stimulus. Furthermore, post-mortem reports involved cases which occurred within a short time after the known death of the individual. Haunt-retrocognitive events were discriminated by their repetition, unrelatedness to the reporter, previous occurrence, and concomitant phenomena, e.g., noises, movements, lights, etc. Spatial specificity was also common. Tyrrell did not include precognitive apparitions. However in the present study, these types of reports only occupied 6% of the total. Tyrrell failed to discriminate what was termed retrocognitive experiences from classical haunts, although he does give examples of each. The most striking aspect of retrocognitive events, is that the apparitional event presumably occurred at one time and the specific sequence of events is rarely altered, despite different observers. This serial-fixedness was not a general characteristic of the ghost-haunt category.

Tyrrell listed seven types of characteristics which were associated with the apparitional reports he investigated. First, he noted that some visual apparitions occupied different spaces

than the surrounding area of the percipient, but that the majority took place in ambient visual space and moved about the percipient's material surroundings. In the present study 86% of the apparitions occupied the same background that was there before or after the visual image was no longer detected. Only 14% of the apparitions were superimposed upon green fields, blue skies or other non-ambient back drops.

Tyrrell alludes to the second characteristic of apparitions as a "non-physical property", perhaps more appropriately phrased "properties for which the mechanisms are not clear to date". Apparitions are reported to appear and disappear in locked rooms, vanish while being watched and to be seen and heard by some but not necessarily by all. Such descriptions were also numerous in the FATE reports. For example, quick disappearance in the presence of the viewer was reported 74% of the time.

Tyrrell mentions feelings of cold and of being suddenly awakened by something before the apparition occurred as primary precursors to the experience. In the FATE analysis, feelings of coldness were rare. However 44% of the apparition reporters noted that some strange feeling was detectable before the visual sensation occurred. The feeling of a "presence" was the most frequent private behavior reported. The word "presence" is difficult to operationalize and may be a socially available label that best fits feelings which are unfamiliar or odd. Analysis of

the FATE reports and data collected by this author from people who have experienced apparitions indicate that "presence" usually refers to unfamiliar or odd sensations related to people that the person had not previously or afterwards experienced.

From a naive critical point of view, the above descriptions in conjunction with Tyrrell's remaining characteristics of apparitions, seriously challenges the veridicallity of the phenomena. According to Tyrrell, the behavior of apparitions indicate they are responding to various stimuli in the immediate environment. They use passages, staircases and go through doors. They also wear clothes and may be seen with various ancillary locomotor devices such as carriages or car—apparatus which they would not require if an assumption is made that something "dead" is necessarily above physical or psychological laws. In the present study 70% of the reporters did not specify if the apparition was dressed or not. We could assume that such information was not reported because the appearance of the apparition did not violate the viewers' psychological expectancy of what should be there. In fact, of those reporters who did mention what the apparition was wearing, about half (44%), noted usual clothes. Unlike the Tyrrell data, very few apparitions in the present study were reported to have used the door to leave; the majority (74%) just disappeared quickly.

Why should an apparition follow stairways and halls or

wear clothes? Perhaps a more appropriately phrased question would be: why shouldn't they follow stairways and halls? If one assumes, for example, that what produces the sensation of the apparition to the viewer is not basically different from any other form of energy, then why shouldn't it follow usual dispersal patterns? Visible light reflects and refracts down halls and staircases, but not through the opacities of walls. But there is still the important question: why should they still behave so much like and so frequently towards human subjects? These questions have produced two general theories to deal with the data.

The first possibility is that the actual stimulus for the apparitional experience is not the apparition itself; the apparitional experience is the response. Instead, apparitional experiences are much like T-C experiences where an external physical stimulus initiates a series of memory images in the person's brain-field. Thus instead of seeing something in "the mind's eye" or "feeling an apprehension", as in the non-apparitional T-C mode, the apparition viewer experiences what he interprets as a visual stimulus which seems to be taking place outside his body. Experiments (Penfield and Perot, 1963) with human subjects have shown that stimulation of parts of the brain with small electric currents can evoke memories which are so real that they appear to be superimposed upon the ambient background. If the T-C stimulus had sufficient parameters to induce memory images in the apparition viewer, then one would expect the viewer to see

not only the proposed dead individual but also the dress, the facial features, and the habits which were associated and stored with the memory of the dead individual. Once the stimuli initiate the memory image, the viewer would "perceive" the deceased person in his usual behavioral sequences.

It is reasonable that the environmental event which evoked the memory image was present during earlier periods of learning when associations between the dead person's face, behavior, and physical characteristics (smells, touch) were taking place. Consequently the presentation of this as yet unidentified environmental event would initiate a potent series of images with which it was associated. A comparable example would involve a mother who picks up her grown son's toys and engages in a pleasant series of reveries and memories of his youth. In the later case, the toys would be the stimulus to initiate the memories with which they were associated. In the former case the physical stimulus responsible for the apparitional experience would perform a similar function.

The second possibility is that the apparitions are infrequent effects of perturbations in brain chemistry. It was mentioned in Chapter IV, that there was not a single type of paranormal description which had not been also given as a symptom of at least one known pathology of the nervous system. There are many types of brain damage which display markedly similar symptoms to that

of apparitional and related experiences. A few examples should aptly illustrate this point.

A 43 year old woman, with a history of headaches, two seizures and transient aphasia became liable to nocturnal fantasies. According to Critchley (1971), "she would wake up in the night with the very intense feeling that someone was in the room -- a person she knew; indeed, with whom she was very familiar ... The impression was so vivid that she would leave her bed and go from room to room on tip toe trying to surprise this familiar interloper." Later it was found that her condition comprised atrophy of the parietal cortex. Could similar private sensations occur with only transient changes in brain chemistry precipitated by dietary changes following grief over the loss of a loved one?

Crosby, Humphrey and Lauer (1962) state that patients with temporal lobe tumors have distortions of normal visual-auditory functions. They may have auditory and visual hallucinations in which they see, often very vividly, objects or landscapes or people not present at the time and place. These authors give an illustrative example of visual hallucinations associated with temporal lobe epilepsy.

> "A young woman who had agreed to care for some plants in a friend's apartment during the latter's absence from the city started out from her home to fulfill her promise. As she was about to enter her car, she discovered that she was being followed by a very tiny

little man, dressed in a frock coat and striped trousers. Aside from the diminutive size, he had normal appearance. He entered the car, accompanied her to the friend's apartment and followed her to the door of the apartment where he disappeared."

The young girl was quite frightened and although she saw him several times afterward, he was never quite as clear as on the original encounter.

I have hinted at the epilepto-like characteristics of some paranormal phenomena. The brain is a massive electrochemical generator, when the sizes of its constituent neurons are considered. On the neural-membrane level electrical potentials of over one million volts per meter are produced. Of course such potentials exist for only short distances of less than a micrometer. Typically the firing of neurons over adjacent parts of the brain takes place in "random" sequences. But under certain conditions, larger than normal adjacent parts of the brain do begin to fire in a semi-orderly manner and produce synchronous electrical outputs. If the area in which these phase synchronizations take place mediates motoric output, the person may have a seizure. If the area mediates what we call consciousness, the person may "black out". If the area mediates what we call private behavior or thought, the person may experience sensations of sight, hearing, smell or taste, depending upon which modality is influenced.

Before the epileptic episode, the person may have an unusual feeling or a sensation of unreality. Afterwards he may feel fatigued or "drained".

The etiologies of epileptic episodes are variable. If they can be traced to some morphological entity in the brain that science now holds as the "reason", such as a tumor, the epileptogenic source is classified as organic. If no organic source can be found, then the term "functional" may be applied. One wonders how many individually infrequent but populationally frequent cases of miniature electric foci exist in the brains of people, sufficient to set off stored sequences of memories which are interpreted as apparitions. If certain parts of the brain were involved in this miniature discharge, specifically the amygdaloid complex and surrounding tissue, feelings of realness and "cosmic" meaning could be experienced. Following the emotionally disturbing events of death and the consequent grief and depression, changes in blood chemistry could be sufficient to trigger these electrically weak but emotionally meaningful apparitional sequences.

The observation that the majority of post-mortem apparitions are reported to occur within four days leads credence to this alternative. True, one could argue that what is reflected in Figure 11 is the exponential fall off of some unknown energy associated with post-death stimuli. Alternatively, it could be argued that we are only measuring the behavioral responses to grief and burial stimuli.

The above two theories have been argued with some variation, depending upon the idiom of the day, for the last few decades. Very few theorists still adhere to some actual apparition forming per se in front of the observer. Most assert that the apparition is an experience of images induced in the individual's perceptual system by an outside stimuli (not identified), or is some hallucinatory side effect or concomitant of a brain disturbance. There is a compromising third possibility that both may be somewhat correct.

Suppose there is a physical environmental source to what we call "apparitional" phenomena? No doubt the mechanism inside the brain would utilize the patterns of electrochemical processes required for normal experience. Consequently the electrochemical processes in specific parts of the brain which produce epileptic related hallucinations are similar to those which produce the apparition. What differs is the incident evoking stimuli. With the epileptic or pathologically-induced apparition, the stimulus is an irritating tumor, glia atrophy or biochemical abnormality, while with the haunt or PM apparition the evoking stimulus is an external physical event.

The sequence of events associated with this evoking stimulus could be the following. Suppose we become electromagnetic field recorders for a few lines and explore the following phenomena, independent as possible from human interpretation. Inside of a house with the appropriate parameters, a dense elec-

tromagnetic field is set up momentarily before a storm or some other electrical disturbance. The field core is contained, for physical reasons, inside a small spatial area surrounded by dense magnetic flux lines with a weaker field periphery. The field moves through the house following the areas of maximum conductivity. Usually, these conductive areas would be along halls where the air is most ionized but periodically a more conductive path through a wall is followed. At times the field may stop, start, accelerate, and slow down depending upon the many variables governing its existence and movement, e.g., local earth gradients. On its meanderings through the conductive pathways of the house it penetrates a room in which a human being is sitting. The outside edge of the electrostatic corona moves across the human subject. Privately, the person experiences a strange sensation, for there are no discrete receptors that detect such fields as there are for light or sound. The human is a weak electrostatic dipole and the moving field is at first attracted. At this point the human sees a strange glow, the observable component of the field, and panics. The resultant "fear" changes the resistivity of the body and makes it more conductive; the field comes closer until it reaches a type of "barycenter" where the effects of the two electrostatic masses are equal, and it stops. At this point the human is exposed to a more intense field which stimulates large portions of the body and brain. The last time such topo-

graphic activity took place, the person had been experiencing the autonomic storm following the death of a loved one. Due to such paired associations, intense images and memory sequences of the dead one are evoked. The person, now recognizing the apparition, moves or reaches toward it, thus pushing the field away. The precision of depth perception is lost with the evocation of images from the field source and the individual cannot accurately judge the actual distance of the glow. As the person moves toward the field, it is repelled back through the wall and suddenly it seems to have disappeared. Or alternatively, the individual is in a certain state of "consciousness" characterized by the required electrical brain frequencies which are essential for the field effect to be sufficiently powerful to become noticeable. He sees the field and is startled; the brain frequencies change, and the sight of the field seems to disappear. The field then continues its progress through the changing nexus of conductive pathways into the damp air of the basement, towards the steel bed posts through the metallic appliances of the kitchen.

In principle this model could be used to investigate the dynamics of apparitions. But there is still the problem of human interpretation. It is easy to anthropomorphize natural phenomena we do not understand. The non-Western peoples have often been ridiculed for giving human or life characteristics to thunder and

lightning and lakes and streams, merely because they move. Sometimes these natural phenomena change in close temporal or spatial contiguity to the thought or command of the native, and he concludes that this change is in response to him.

The history of science has been a long record of attempts to rid the human specie of the infantile thought modes of animism and artificialism. In biology there is the statement that ontogeny recapitulates phylogeny. Simply stated this means the biological development of the individual, within a few months after conception progresses through the apparent evolutionary development of life forms. There should also be a statement that sociogeny recapitulates ontogeny. The infant first interprets the world animistically; things that move are alive. Later things are assumed to be cause by man or a projection of man (e.g., gods). Finally the sense of humanly independent causality develops. Socially, the logic mode follows a similar vein. Early social groups assigned the moving stars, lakes, and rivers with labels for life. More developed groups viewed natural events, especially cataclysmic ones, as being caused by persons or gods, the former being persecuted or burned at stakes. Then finally social logic developed independent causality, where physical phenomena are viewed in terms of laws devoid of human characteristic.

However there are still times of regress, when people today fall back upon the infantile logic modes of feelings of eternalness

or interpret moving things as alive. Such relapses are prone to happen in situations of stress or unexpectancy where the adult logic mode fails. When a loved one is killed unexpectedly, there is "no reason" and the individual may display many types of magical behavior. Logic relapses also occur when we face something strange or unfamiliar. Ball lightning has been noted earlier in this text as a source of scientific controversy for some years. People who view it are often frightened. When it moves through a wall, a behavior that magnetic fields can display, people hastily conclude that it is therefore not physical. Because it is electrostatic it moves toward various charged masses, including an available human being standing nearby. Yet the human observer interprets this movement as an attack. One wonders how much anthropomorphization has obscured the possible physical laws involved in apparitional reports or other natural but infrequent phenomena.

The existence of a discrete physical external stimulus which induces the image of an apparition raises interesting questions. If the description of post-mortem, haunt, crisis retrocognitive, and precognitive apparitions are similar, does this mean that a single class of physical stimuli are responsible for them? In the present study, post-mortem apparitions were mainly analyzed in detail because of their large number in the sample. Yet no gross discrepancies were noted between the types of apparitions. There were differences with respect to how the

apparition's behavior was interpreted by the reporter. Such interpretations would be an intervening variable and could lead to such conclusions as "I recognized the form as my father" or "the form was not recognizable and hence was a haunting ghost". Actually the stimulus complex responsible for induced apparitions could be the same for all types. In the post-mortem cases, the stimulus complex may be some singular transient disturbance associated with the singular transient event of death. In haunt situations, the stimulus complex would be more associated with local physical environments and hence be subject to repetition when the essential conditions were replicated. The parameters required for such a stimulus are given in the theory text.

Chapter VII

OUT-OF-BODY EXPERIENCES

Introduction

Reports of people finding themselves "outside" their bodies have been numerous. Such reports are replete in western and non-western cultures alike. According to Charles Tart (1967), the typical experience usually contains some combinations of the following elements: (1) floating; (2) seeing one's physical body from the outside; (3) thinking of distant place while outside and suddenly finding oneself there; (4) possessing a non-physical body; and (5) being absolutely convinced that the experience was not a dream. People who have such experiences may consider them normal aspects of sleep unless some aversive social reinforcement has been applied.

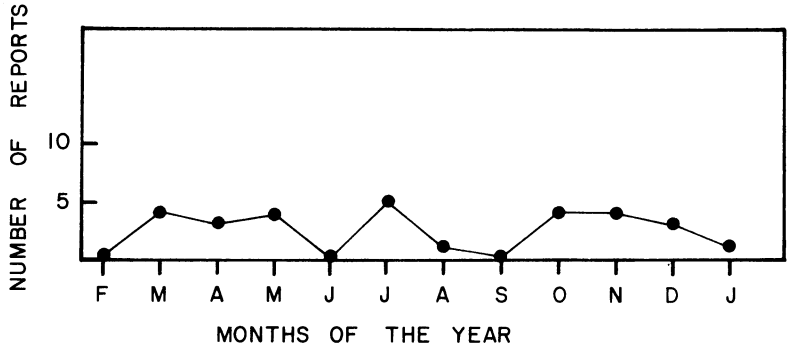
These experiences have been called OOBEs (out-of-body experiences), astral projections, traveling by the astral body and similar phrases. Some esoteric philosophies such as Paul Twitchell's Eckankar, supposedly employ these processes of "soul communication" frequently.

In this text the reports of such experiences have been given a separate chapter since the stimulus operations involved do not seem to be similar to T-C experiences.

Fifty (50) cases were classified as OOBE or out of body experiences. Although this was a relatively small sample, a similar trend in monthly and hourly occurrence with respect to the other types of psi-classifications can be seen in Figures 12 and 13. In terms of seasons, the percentage of cases occurring in spring, summer, fall, and winter were 35%, 29%, 24% and 12%, respectively. However because of the small sample, these values were not significant. Similarly, out of the 31 OOBE reporters who specified the time of day, 55% were at nighttime hours.

Geographical positions of the reporters at the time of the OOBE were not included here because of the small sample size and because they did not show any particular groupings. In terms of specific places, it was found that 60% of the cases were reported at home, with 87% (26) of these occurring in the bedroom or sleeping area. The remaining 13% of the cases in the home were reported to occur in the kitchen and living room (sofa). Of those 26% which occurred inside a public place, 12/13 or 92% took place, according to report, in a hospital setting. The remaining of the total cases were split between spatial localities either being not reported specifically or as areas outside of buildings.

Interestingly, the sex of the reporter was more evenly



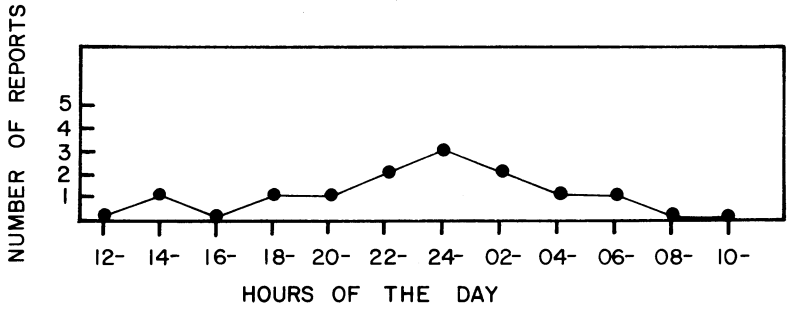


Figure 12. Number of OOBE reports as a function of month of occurrence.

Figure 13. Number of OOBE reports as a function of time of day of the "experience".

distributed than in most of the phenomena classifications. OOBE reporters were male 36% of the time and females 64% of the time. In terms of ages, only 13 out of the 50 reporters noted their age at the time of the occurrence, the mean being 15.7 years of age. One important point, which seems characteristic of other phenomena classes noted in this book, is that the average (mean) latency between the time of the experience and the report of it in FATE was 20.7 years. This figure seems quite reliable for this sample considering 90% of the 50 OOBE reporters specified this information.

The activity of the O' in OOBE cases shows a definite trend for the prone position, 86% of the total cases being described as such before the onset of the phenomena (P). Only 14% of the subjects reported that they were standing or sitting before the onset of P. In terms of "conscious" activity, 56% were asleep while the remaining 44% were quite awake, according to report. These two categories can be further subdivided into six basic stimulus patterns that seemed to precede the reported OOBE. "Normal" or usual sleep was reported in 14% of the cases. Another 18% reported that they were sleeping due to the anesthetic for an operation and another 24% reported a sleep due to excessive fatigue. The 34% of the cases who were also awake before P were in what could be interpreted objectively (and was certainly reported by the O') as a crisis situation for the O' himself. These

preceding situations included mourning, drowning, pain, heavy worry, homesickness, dizziness, and child birth. Six percent (6%) of the OOBE population sampled here stated that nothing unusual preceded the event, while the remaining two cases or 4% emphatically stated that they were deliberately attempting an OOBE. With respect to the presence of other subjects, 50% of the reporters noted some other human being within the house or room at the time of P. The immediate sensations before the OOBE seem to show some interesting characteristics. The plurality of cases, 38% noted that the P suddenly occurred. In these cases the individual became suddenly aware that he "was out of his body". A somesthetic sensation noted as "strange feeling" or "tingling sensation" was reported by 10% of the Os, a "nothingness" was descriptive of 8% of the 50 reporters' immediate pre-OOBE sensation. Vestibular-type disturbances filled 16% of the cases and included such metaphors as "like being pulled-upward by some force", "spinning", "dizziness", or "moving ahead into space". Auditory sensations were the immediate precursors only 8% of the time and included "sweet music" or the subject's name. Paralysis (6%), pain (6%) and "just thinking" (8%) were reported as the remaining immediate pre-OOBE sensations.

The description of the P, as in the other types of psi-P, showed marked individual variation. Since a few trends were however noted, the 50 OOBE cases were analyzed against these

patterns. The first trend was that of seeing the physical body lying on the bed or sleeping apparatus while the "self" or "consciousness" looked down on it. In the 50 cases 44% definitely stated that they experienced this while the remaining 56% did not report this sensation. None of the 50 reporters, incidentally, mentioned that they first saw the ceiling and then saw the body beneath them. Apparently in these cases, the first thing noted was the "physical body" as the "consciousness" looked down onto it. Once out of the physical body, 20% of the subjects report they were pulled by a "force", described as magnetic-like and moving at great speed. Eight percent (8%) of the total subjects mentioned both that they could go through solid objects such as walls, ceilings, etc., in this "state" and could move about by "willing" or "thinking". At some time during the OOBE, over half, (54%), of the OOBE reporters experienced floating sensations which were described as being like the wind, as light as a feather and similar metaphors. During the OOBE, dead people were seen 24% of the time while things associated with the Judeo-Christian concept of heaven were seen or heard 44% of the time.

Thirty-three or 66% of the OOBE people found the "self" in another place, not typical of their "physical bodies' surroundings". Of these 33 cases, 33% found the "self" some place on "earth" as they described it, these places being the

ones they were thinking about at the time. The remaining 67% or 22 cases supposedly involve some place not on earth. One subject did remark that the place looked like ancient Athens. However this was not characteristic of other cases. A dark abyss or valley in front of the O' was seen in 6 cases or 27% of the OOBEs involved with "non-earth" places. A bright star-like light seen in the distance coming out of the blackness and slowly approaching the O' is reported in 45% of these cases. This light was identified as "God" or "Jesus" and as being so bright or luminous that it was blinding. One interesting point is that these reporters noted that they "just knew" that the light was "Jesus" or "God". Bright meadows, trees, beautiful music and colorful birds, etc. were reported in 27% of the cases. A gate or footbridge, again usually across the dark valley or abyss was noted in 23% of the cases. One subject reported that the gate was an entrance to a city with high walls, around which space ships floated. Voices were reported in 16/22 or 73% of the cases. One striking feature was that in 13/16 of these voice cases the composite remark, usually stated by what was identified as an angel or a god, was "go back, your time is not ready, go back". Such instruction by a voice was the immediate antecedent for the termination of the experience in 36% of the total 50 OOBEs. In 8% of the cases O' was afraid immediately before the OOBE ended and in 4% of the cases a force coerced or

pulled the self back. The remaining 52% "returned to their bodies", as was a common phraseology, without any striking antecedent. The OOBE was definitely described as pleasurable by 42% of the people; 54% did not mention any particular adjective, while 8% emphatically described the experience as aversive.

DISCUSSION

Numerous books have been written on the topic of OOBE. A partial list of such books would include Crookall's The Study and Practice of Astral Projection (1961), Fox's Astral Projection (1962), and Smith's Out-of-Body Travel (1968). These books are fascinating collections of personal experiences reported by the authors or cases which have been verified as much as possible. Although in basic content no marked discrepancies exist between these accounts and the FATE cases, percentage comparisons are not possible.

The characteristics which differentiate OOBEs from usual T-C occurrences are their primary concern with the individual experiencing them. T-C experiences usually focus upon the details of another person or object. The OOBE reports were more "self-oriented", and were predominated with descriptions of internal sensations of the reporter. Often the content of the experience reflected the religious systems to which he had been exposed.

Again we could quote cases of neuropathologies where OOBE

symptoms of depersonalization have been mentioned. Disease states of the parietal lobes, which contain the integrative information required for a person's conscious experience of his body image, often are associated with OOBE-like sensations. Individuals may feel out of their bodies or have the sensation that an exchange of bodies or minds has taken place. Similar reports of depersonalization have been known to occur under periods of fever or tetrahydrocanabinol (THC) intoxication (Tart, 1970). THC, the active ingredient of marijuana collects in those parts of the brain which are known by lesion evidence to be associated with the sensations reported (McIsaac, et al., 1971).

The possibility again exists that transient changes in brain chemistry, not sufficient to destructively alter chemical equilibria but to stimulate the appropriate private experiences, may follow mild stress stimuli. In the present study, as with other reports as well, antecedent conditions to OOBE occurrences were most frequently fatigue, anesthesia, or minor crisis situations.

Apparently some individuals can induce the experiences voluntarily. Tart (1968 and 1967) reported two individuals who apparently report OOBEs frequently enough to make concomitant measurement of any electrophysiological correlates feasible. In several nightly sessions, Tart recorded the electroencephalographic and autonomic changes during resting and sleep periods of these subjects. The data were not commensurate but not necessarily contradictory. The male subject's OOBEs occurred during stage 1

periods. Stage 1 is typified by irregular mixtures of theta waves (4-8 Hz), random low voltage activity and alphoid activity (waves 1-2 Hz slower than the subject's waking alpha). Stage 1 is almost always associated with REM (rapid eye movements). Typically, REM is associated with dreams, although not exclusively so. Yet the male subject still sharply distinguished his OOBEs from dreams. This subject showed a marked range in his normal alpha rhythm frequency and sleep spindle frequency, features which are not common in human subjects.

Tart's second subject was female. Unlike the male subject, her OOBEs were associated with flattened EEGs, no REM and prominent alphoid activity. However the experiences still appeared during a Stage 1 pattern. She did not show measurable autonomic changes, nor did she appear in a death-like trance.

Once more an unusual occurrence of alpha-related states seems to be associated with another paranormal experience. Situations which facilitate relaxation are most conducive to T-C reports. Precognitive reports are most often associated with dreams and the electrical theta-alpha correlates of Stage 1 sleep. During waking periods automatic or "mind-wandering" tasks seem important pre-essentials to both types of psi-phenomena. Staring into a crystal ball or into a bowl of tea leaves have the same stimulus operation: they can induce electrical changes towards the alpha-theta ranges in the brain of the susceptible person. Bards, monks,

and yogis can induce this monotony by chats or ritualistic repetitions of motoric responses, but the effects are similar. In experimentally induced situations of monotony, such as sensory isolation, "normal" subjects have been known to report another body lying beside them, sometimes overlapping with their physical body. Alphoid activity has been recorded in subjects exposed to the conditions of sensory isolation. Experiments have been done which show that anesthetics, excessive fatigue or hypoxic conditions can induce similar frequency changes in the brain. The latter condition can be induced by drowning and a number of near death situations.

Perhaps naively, one can see a general pattern of borderline consciousness-alpha/theta activity and the environmental situations which induce these states, as important pre-requisites to later reports of psi-experiences. But can this general conclusion help us understand the mechanism? Do these preconditions indicate that psi-experiences are associated with a narrow band of electrochemical processes within the brain and from the physical environment? And why the preoccupation with religion related events? Do the depictions of a post-death environment reflect what one has read from the Judeo-Christian tradition or does the Scripture reflect a phenomena which preceded it and is a characteristic of our specie? One set of data suggests that the answers may be found in understanding the psychophysiological functions and dynamics of our nightly unsolved riddles: dreams.

Chapter VIII

OTHER POST-MORTEM PHENOMENA

Introduction

A small, but internally consistent number of cases were classified as post-mortem phenomena. They did not include apparitions and seemed to be intrically related to the death of someone reinforcing to the reporter. The differentiating aspect of these cases were (1) their occurrence after the death of a close person or pet, (2) the reporter interpreted these occurrences as being connected to the dead organism, and (3) the experience involved fragments of behavior directly or indirectly associated with the dead organism.

Two of the cases which were analyzed are given below as examples:

Case 1

" After I lost my husband Albert, the uncanny feeling that he was still with me persisted. We lived at The Rook, Meer End, Warwickshire, England, and he died after a long illness on April 1, 1945.

My husband made his presence known by little touches, caresses on my hair - things of that kind. Once I had a very strange sensation, a mystical feeling I find hard to describe. It occurred when I was in the depths of despair. I had been weeping, tossing

sleeplessly in my bed and longing for my own life to end. Suddenly a presence made itself felt at the bedside. I could almost see my husband but not quite - and I felt as if I were enclosed in him, so that we really became one, one flesh, one spirit. Afterwards came a wonderful sense of comfort and I drifted into dreamless sleep.

A similar experience happened three weeks after my mother, Elizabeth Cassell, died in November, 1945, having suffered a stroke. I lay awake grieving for her and once again I became conscious of a presence, almost tangible enough to see. It moved across the room to the side of the bed. I seemed to hear my mother's voice saying, "The Lord is my shepherd; I shall not want." This is just what she would have been likely to say and not a thought apt to come to me."

Case 2

"Chipso was already five years old when I was born. He was a majestic black and white tomcat who was so named along with his brother, Rinso, when his mother chose the laundry tubs in the service porch of our San Diego,

Calif., home as their birthplace.

Chipso was unique among the neighborhood cats because of his size, his unusual markings and the fact that he could leap nearly five feet into the air.

Although he wasn't openly affectionate he loved to sleep on my bed until my parents put him out for the night. As soon as the light went out in my room, he'd race up the back steps which were just outside my bedroom window. As he reached the top step I would open the door for him. He then would walk determinedly to my room and leap up on the bed to curl up and sleep till he was escorted out two hours later.

In 1949 he was in his 17th year. When he became ill my parents had to have him put to sleep because of his advanced age. I wasn't told when this was to be accomplished but on coming home from school one day I discovered the deed had been done. Like any 12-year old I grieved for him but I knew it was best for him.

About two weeks later I was lying in bed when I heard a familiar sound - the light but definite padding of

little cat feet moving swiftly up the back stairs. When it happened again the next night I thought perhaps a neighbor's cat was looking for a handout. But when I looked nothing was in sight. So it went for more than a week.

One night when I had come to take the footsteps for granted, it happened as usual: the soft padding up the steps, then stopping short. But this time, a split-second after they stopped, I felt a thud on the bed! Then the pressure of small feet across the bed and the familiar warmth against my legs. I couldn't bring myself to turn on the light. After some moments the pressure began to ease; gradually it was gone.

Chipso, in his special way, had come to say goodbye."

RESULTS

A total of 37 cases were classified as non-apparitional post-mortem reports. Since this figure was less than the criterion number, no statistical analyses were attempted. However the data was still broken down into percentage categories.

Only 59% (22) of the reporters specified the month.

Spring and fall were found to produce seven cases each, with summer and winter being associated with five and three cases, respectively. Twenty-six (70%) of the contributors reported the time of day. Again night time hours controlled 75% of the cases, with peaks between 2200 and 2400 hrs (LT).

Single individuals viewing the phenomena were recorded in 60% of the cases while more than one viewer was noted in the remaining 40%. Of the single cases, 78% were female, 22% were male.

Sixty-five percent of the cases were reported inside the house, of which 67% supposedly took place in the bedroom. Other rooms of the house filled the remaining 33% of the cases.

With respect to the O's "conscious state", 36% of the reporters were asleep, while the majority (64%) were awake. Of those asleep, only 7% reported dream sequences before or during the experience.

The phenomena can best be discussed in terms of the sense modalities in which they were reported. Of the 9 categories, primary auditory experiences filled 32% of the cases. Phenomena occurring in this mode included whistles, the sound of drawers slamming, whinning of dogs, violin music, whispers, footsteps or the sounds of doorbells. The second modality was primarily visual, which included 24% of the total cases. Balls of light, doors opening or unusual behavior of pets were included here.

Experiences of tactual, olfactory, auditory plus visual and auditory plus force, occupied 8% of the cases each. Examples of these phenomena were touches by something like a human hand, smells of cedar, hearing pawsteps (of a pet) and seeing the indentations of prints in the bedcovers, sounds of footsteps and finding wet clothes, rappings and the collapse of beds, and the sight and sound of a doorbell being pushed. Combinations of other modalities filled the last categories. Essentially 78% of the phenomena involved auditory or visual modalities.

In 66% of the total cases the event was attributed to a recent dead relative while in 24% of the total cases the referents were pets. Human beings not related but known to the reporter were presumably involved in the remaining 10% of the cases. Was the supposed post-mortem phenomena a behavior which had been frequently repeated by or a characteristic of the deceased? Of those relevant cases, 64% of the reporters specifically state in their reports that the events experienced had been a habit or consistent behavior of the deceased. Fifteen percent of those behaviors had been promised by the deceased before death to be shown to the reporter. In order to compare these data to apparitional post-mortem events and normal forgetting-memory processes in general, the times between the death of the organism and the phenomena were calculated. Within the same hour, 18% of the cases occurred. By the time one day had passed, 57% of the phenomena

had taken place. After three days 71% of the post-mortem cases had been experienced and by the end of the week following the death of the referent individual, 78% of the cases were noted. Figure 14 gives a graphical representation of these percentages. Often the intensity as well as the reliability of a phenomenon can be surmised by the number of times it is repeated. With the above post-mortem experiences, 73% occurred only once.

DISCUSSION

For the most part, the patterns of post-mortem phenomena are consistent with other psi-types. However the phenomena themselves do not hold the experiential complexity of the other types. Two observations suggest that these post-mortem phenomena may employ normal operations of behavior to an even greater degree than other psi-types.

First, the exponential-like fall-off in time of the number of post-mortem experiences is markedly similar to the curves of retention obtained in orthodox memory research. An example of a retention curve for nonsense syllables, described more fully in Woodworth and Schlosberg (1954), is also drawn in Figure 14. The use of nonsense syllables in memory experiments helps control for any previous meaningful associations. Such meaningful associations can influence learning. Basically all retention curves follow the same shape and percentage rate losses. The precise percent of recall is dependent upon the type of test used and material learned.

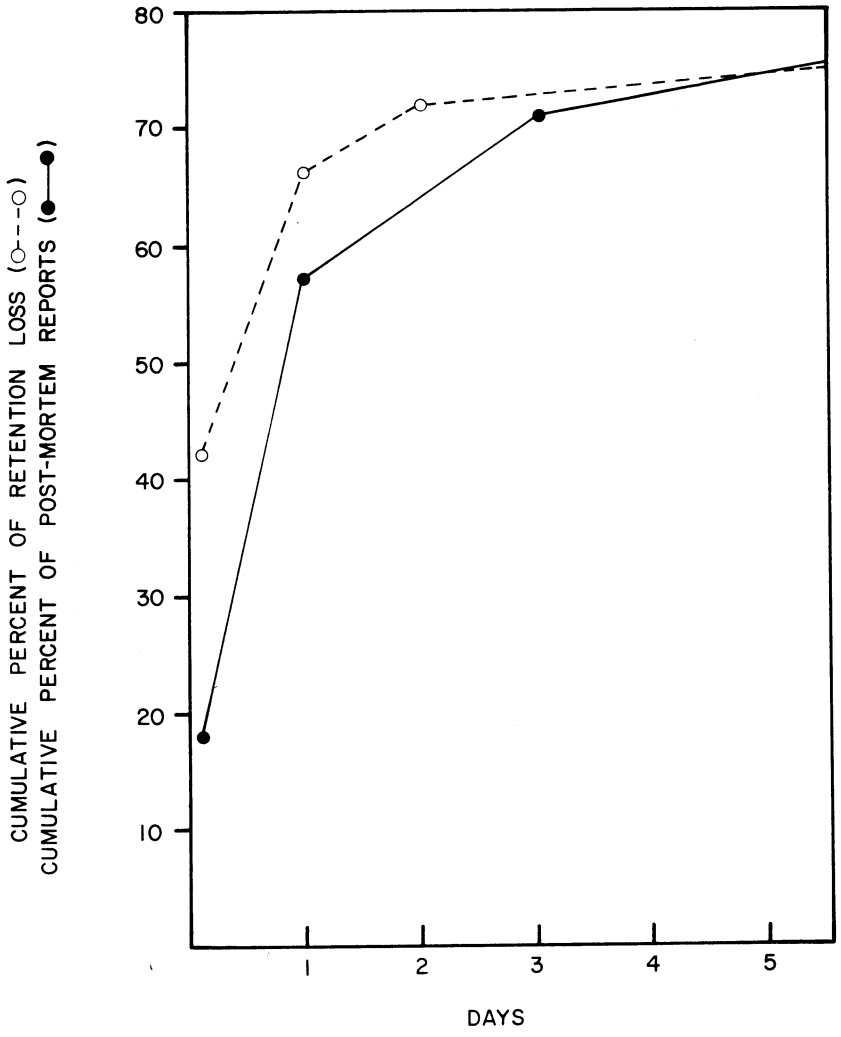


Figure 14. Cumulative percent of "post-mortem" phenomena taking place as a function of time between a death and the report of the experience (●——●). Cumulative percent of retention loss for nonsense syllables in a usual memory experiment (0——0).

It can be seen in Figure 14 that the greatest decrement in recall of nonsense syllables occurs within the first three days. Such curves have been noted for post-mortem apparition accounts and a symmetrically reflected curve was noted in precognitive cases (Figure 7). This experimenter does not think that the similarities are spurious, but indeed give an important key to understanding much of what has been called the unusual and paranormal. For now, suffice it to say that some time limit has been set on the psi-phenomena discussed in this text. Their frequency of occurrence does not deviate markedly from other normal processes of behavior. I am not saying that post-mortem experiences decline over time because the referent person is being forgotten. Instead, it is the process which creates the psi-experience that declines after those first few days of death.

Another feature is that the majority of PM occurrences had been habits of the deceased referent. Are we looking here at the effects of expectancy during the stress periods of grief and change? There are numerous anecdotal instances in waking situations with mundane objects, where expectancy is an important factor. Suppose for two years a trash can has sat to the right of a man's desk. He has written many letters, wadded them up, and thrown them into the trash can. The association between wadding up the letters and throwing them into the receptacle to the right of his desk is strong. Now without his consent, someone moves the trash can to the left of the desk. The next

day as he begins work at the desk, only a casual notice is taken of the new position. Some minutes later, a problem begins to control his behavior. Under the emotional pressure of the situation, a mistake is made, and he wads up the paper. For a split second as he looks up expecting to see the trash can on the right side of the desk he thinks it is there. There are many psychology experiments which show that under conditions of emotional stress, the organism will revert to previous thought modes or habits that were well learned in the past. During labile stages of memory consolidation, perceivers of post-mortem experiences may be controlled by these effects.

Chapter IX

UNUSUAL SENSATIONS AND KINETICS

Introduction

In order to be thorough, a chapter is required to discuss the remaining types of phenomena that people have considered paranormal, supernatural, psychical, etc. This chapter will briefly cover those various types of reports not mentioned or included in the book thus far. For simplicity, five categories were selected: unusual sensory reports, unusual kinetics, mixed-combinations, unusual behavior of animals, and non-fit cases. A total of 91 reports fit these categories.

RESULTS

Each category comprised the following percentage of total cases analyzed for this chapter: unusual sensory reports (20%), unusual kinetics (48%), mixed-combinations (13%), unusual animal behavior (12%) and non-fit cases (7%). The first two categories were further divided into divisions. Of the 18 cases in the unusual sensation category, the modality involved was vision, audition, olfaction, and somesthesis in 50%, 28%, 11%, and 11% of the times, respectively. Of the 44 cases which comprised the unusual kinetic category, a "force" directly influencing

voluntary movement of the reporter was noted in 14% (6) of the articles. Kinetics involved in unusual sickness or healing made up for 16% (7) of the cases while a "force" directed to a specific object was noted in 23% (10) of the cases. The largest division included 48% (21) of the cases in this category and was concerned with objects appearing and disappearing.

Instead of quoting specific cases, briefly described examples will be given for each category and division. Visual sensations in the unusual sensations category included experiences of diffuse pale purple lights or white lights around human and non-human animals (pets), diffuse bright lights in the room or sharp rays of light in the room. Auditory reports in this category included sounds of waltzes, someone's voice in the corner of the room, sounds of chanting, sounds of horses and piercing screams. Presences were experienced as feelings of evil forces hiding in the room. The two cases in olfactory modes included smells of roses or incense in a four foot diameter area beneath a maple tree.

The unusual kinetics category composed some interesting reports of effects from unseen forces. The first division: forces applied to the observer, was typified by reports of momentary paralysis during which time the person thought his life was either saved or in jeopardy from "invading forces of evil". The second category included instances of healing and/or "curse-induced sickness" within the individual reporting the event or

his relatives. The change in health was presumed to be a consequence of laying on of hands, prayer, or "unknown forces adding or withdrawing the poisons of the body". The third division comprised predominantly what has been called poltergeist activities. Kinetics in this division were not primarily oriented towards the observer. Instead they were more external and included descriptions of movements of objects, winning at dice, the controlling of the height of a flame by thoughts, unzipping of clothes by unseen hands, and appearances of semi-permanent images on walls, screens or windows. The fourth division of the unusual kinetics category involved reports of objects appearing or disappearing such as bracelets, balls, money, animals, and even people. One instance relates to how two children who were upstairs sleeping (windows locked) during a thunderstorm were suddenly found outside in the rain with no recollection of how they had arrived there. The three cases of statues "crying" and water appearing on the floor were also included here. Classically, such phenomena have been called "apports", teleports, and materializations.

The third category of mixed phenomena would popularly be called haunt cases. In one case, a female percipient obtained an old sea chest from a second hand store. One night while meditating, she saw a blue light appear and felt an icy cold breeze and heard the creaking of a mast. She felt as if she was on board

a ship. In a second case, the subject saw the room lights turned on and off, the rocking chair move and heard noises at night which sounded as if someone was rolling a ball down the stairs or popping a ruler on the side of the desk. Still other cases showed more dominant poltergeist activities, where the majority of the events involved movement of observable objects. These objects were typically dishes in the kitchen or objects in the bedroom.

The fourth category of unusual behavior was exclusively related to what has been popularly called reincarnation-possession cases. These reports included stories of both human and non-human animals which began to imitate behaviors of organisms that had died. One woman was convinced that a young kitten born just after the death of her favorite cat, was the latter's incarnate. She was amazed to see the young kitten develop the "very same" behaviors as her favorite dead animal. Still other cases dealt primarily with human cases of "possession", where a "dead person" supposedly spoke through the reporter or the reporter saw this occur in another human subject. The mode of expression was without exception through the ouija board. Two cases mentioned a related phenomena, that of so-called "regression" hypnosis, where previous lives are presumably explored by instructing the person to return to a time before birth.

The final category was included purely for the sake of

closure. These cases included a report of people swimming in alligator infested waters and escaping unharmed. This escape from the "certain death" was attributed to a spell placed on the animals by a local witch-doctor. Another case included a man's queer experiences every time he walked by a particular area. A final case described how the subject's wife periodically spoke a foreign language during her sleep. The observation that many of the phrases had not been used since the middle of the last century was considered significant.

Only the first two categories of unusual sensory reports and unusual kinetic reports were analyzed in terms of percentage distributions. Seasonal occurrences of unusual sensory reports showed winter, spring, summer and fall percentages of 13%, 38%, 31% and 18%, respectively, while the kinetic categories showed distributions of 36%, 28%, 16% and 20%, respectively. Time of day was still predominantly night time hours (57%) with daytime occurrences taking 34% of the cases and both day and night phenomena occupying the remaining 9% of the cases.

Of the 18 unusual sensory report cases, half occurred in the home, with the remaining taking place in public or outside areas. In these situations the public place was a hospital. Seven of the eight home centered cases were in the bedroom. The kinetic categories showed a different pattern. Fifty-five (55%) took place in the home, but only 29% (7) were situated in the bedroom.

Other rooms in the house were the settings for 33% of the cases while another 38% of the cases included more than one room.

The sex distribution of the reporters in the unusual sensory category was predominantly female, who comprised 83% of the reporters. In the kinetic phenomena the sexes were more evenly distributed in the single observation cases, females comprising 56% and males 44% of the reporters. An interesting 39% of the cases involved more than one percipient, a factor not observed in other types of psi-reports.

Other information was not included or was insufficient for analysis. Because of the variability of the phenomena reported in this chapter, detailed analysis of characteristics of these phenomena were not attempted.

Discussion

The phenomena reported in this chapter comprise the remaining types of experiences that people have labeled as paranormal. Most of the reports were concerned with events that may have involved some force. Such events have been labeled poltergeists, haunts, healing-effects, curses, apports and teleports. They are rather exotic examples of apparent deviations from known physical laws and consequently have received attention

from scientists, laymen, science fiction writers, John Keel and Charles Fort.

Beliefs that thoughts and/or the presence of a person's body can influence another's health exist in many cultures. Personal proximity of the local witchdoctor as a healing factor is ridiculed by the North-American. Instead the North-American has his beliefs in the "green thumb", "laying on of hands", or in the "will of god". That healing or disease could be influenced by the presence or absence of a person, object, or place has been given some experimental support.

Barry (1968) found that dishes of fungus situated 1.5 meters from human subjects showed variable growth rates. Fungus upon which the subjects had concentrated for 15 minutes, showed statistically significant less growth than control samples. Some human subjects, often called "healers", may show special abilities to influence living organisms. Grad (1967) reported that a local healer could influence wound healing in mice. There are also many popular experiments which suggest that prayer, another form of concentration, can influence life forms.

A careful experimenter can see many control problems in the above experiments. The production of thought or prayer in the presence of plants or animals may be only artifactually related to the changes observed. Many of the changes are indeed quite small. The actual controlling stimuli could instead be

body heat, noises from the subject (low frequency dronings of prayer), or changes in local air chemical or electrical distribution as the subject stands near the plant or animal.

An experiment by Justa-Smith suggests that enzymic reactions of the body may be affected by particular human beings. She found that a man identified as a local healer could somehow influence the activity of trypsin that was contained in a glass vial. Apparently the proximity of his hands was the critical feature. Other people in the lab could not produce such effects.

One suspicious point about the types of "diseases" healed or induced by paranormal means is that the syndromes are often borderline conditions. Included in those conditions are psychosomatic diseases, chronic pain states and some types of cancer. The chronic pain states can include some types of arthritis, abdominal complaints, headaches and other features which make up a hypochondriac profile. Important interactions by psychological factors have been demonstrated in these diseases. The efficacy of Edgar Cayce's diagnosis and treatment was primarily with the above ailments.

There are many explanations for the sudden removal of "a disease". Depending upon your belief system, god's generosity might have been invoked or a bit more humanistic compliment could be paid to the local healer or spiritual group. The first thing a psychologist considers is the notorious placebo effect.

The mechanism of the placebo phenomenon is not clear, but its influence is very potent.

A placebo is a pharmacologically inert substance often used to "please" patients; in the popular vernacular it's the sugar pill. Different experimenters have shown that otherwise pharmacologically inert substances will produce observable physiological reactions if the patient thinks that the pill is therapeutic.

In Sternbach's Pain: A Psychophysiological Analysis (1968), some interesting experiments by Lasagna, Mosteller, von Felsinger and Beecher are discussed. These experimenters studied surgical patients receiving both morphine and placebos for post-operative pain. As many as 50% of the patients received some relief with the placebo. Similar researches by Beecher found that 35-40% of patients experiencing pain due to cancer obtained relief. As a comparison, 65-70% of the patients obtained relief from 10 milligrams of morphine. Sternbach notes that one of the correlates of placebo pain and pain-relief is the production of anxiety. The existence of anxiety in the individual is a well known contributor to subjective estimates of pain. Generally speaking the pain experience of a situation is intensified during increased levels of anxiety. Consequently it is not surprising to learn that people who respond to placebo effects are more anxious, dependent, self-centered, preoccupied with bodily processes and more emotionally labile than non-reactors.

Simply stated, the above data show that "what one believes in" can be stimuli so potent that psychophysiological changes can occur. Belief and expectancy systems influence not only what we perceive, but our overt and covert responses as well. It is no small matter that belief in a person or religo-ritualistic system is often a mandatory requirement before many types of paranormal behaviors can occur. The repetitive proclamation of a subject's belief in the person healing is emphasized by faith healers, witchdoctors, and members of the seance alike. Whether this faith-belief is the psychological cause of the psi-experience or is the psychophysiological antecedent for a third environmental variable to have its effect, can only be answered experimentally.

The association between healing/sickness occurrences and specific people has been often noted and discussed. There still exists the possible role of unique spatial configurations as contributing variables. In many cultures there are specific areas often not greater than 100 ft in diameter, which are designated as taboo or weird. Many times their aversive qualities may not be consciously recognized, but avoidance behavior is nonetheless displayed. These areas may be designated with the appropriate cultural label as dwelling places for evil spirits, leprechauns, or an assortment of other creatures. Gauquelin (1971) makes the interesting observation that people living in certain houses are

prone to some types of cancer. These houses show similar soil and geophysical characteristics. Such data are interesting in light of some psi-reports where the reporter claims failing health coincident with moving into a particular house. Usually a psychological reason was given for the health condition, such as an evil force.

If optimal but rare combinations of geophysical parameters exist spatially, then can they exist temporarily? Can these hypothetical geophysical parameters exist transiently and be sufficient to induce healing/disease related states in the susceptible human organism? Are there areas where people and animals become mysteriously sick or die during a few days for no known medical reason? As we learn more about the ambient geophysical and their inter-relationship with living organism, such possibilities are not so far-fetched. One-hundred years ago the idea that carrying a dark-looking rock called pitch-blend in your pocket would cause an early death from a deteriorating disease was considered ludicrous. And then we discovered the effects of radioactivity.

The other divisions of the unusual kinetics category and the mixed combinations category constitute the poltergeists and haunts. The work by Owen, Can We Explain the Poltergeist (1964) is a fine survey of this area, and the many articles by W. G. Roll and Hans Bender help round out the empirical picture. Roll (e.g., Roll, W. G., Burdick, D. S., and Joines, W. T., 1973),

recorded many of the kinetic phenomena first-hand during poltergeist episodes. He has systematically plotted the trajectories, paths, and dynamics of objects seen in motion. Not surprisingly, his data strongly suggest that energy-motion relations exist which are comparable to more understood energy dissipation processes.

Poltergeistic and haunt phenomena include such reports as movement of objects, appearances and disappearances of objects, peculiar sounds or voices, and visual-apparitional impressions. They are difficult to understand by some researchers. However sets of equations can be derived to show that such phenomena can exist and employ known physical processes. The appropriate energy is already available in the geophysical and meteorological environment and requires the appropriate combination of parameters to be influential. Local seismic stress-induced electrical gradients in conjunction with the optimal resistivity characteristics and interfaces between the soil and house foundation are parameter examples. Such transiently available, but intense environmental fields would be sufficiently energetic to induce changes in objects or in the brain of the person perceiving the object. It is indeed ironic that with all the complex and immense physical forces in the biosphere, men still look for gods, minds, and spirits to explain behavioral unknowns.

The unusual behavior category treated in the result

section contained cases which involved what has been called reincarnation and possession. Operationally, there does not seem to be any basic difference between the two except for the duration. In possession cases, the individual behaves like another person for a brief period, while in the reincarnation cases the behavior exists over a life time. What both presume is that something, which is associated or produces a person "personality", exists independent of the body and "death". This source also causes behavior. The crux of the matter is what is meant by personality. Technically speaking, we do not respond to the physical characteristics of another person, but instead to his behaviors. Physical characteristics become important by association. Knowing another person well, implies that his behavior can be predicted more or less accurately in specific situations. The child first responds to the patterns of reinforcement that are delivered to it as a consequence of both his behavior (e.g., crying) and the schedules superimposed by the parent. At first the mother is synonymous with the delivery pattern of milk, warmth and other features of contact-comfort. Later associations are made between the physical characteristics of the stimulus accompanying the milk such as the mother's face, her shape, and size. The responses of adult human beings are basically complex generalizations of the infantile stimulus-response matrices. People respond to behavioral patterns. In fact cultures

exist because people share behavioral patterns and their derivatives, commonality in expectancy and reinforcement history.

When such expectancies are violated, people are concerned and upset. The perception of another person exactly but independently simulating the behavior of a second person is not commensurate with reinforcement history and can induce feelings of what is called anxiety. Such anxiety is accentuated in situations where the behavioral patterns display close similarities to a person who had died. Under such conditions old memories could be distorted, the objectivity of the situation lost. In cases where people argue that an animal or child slowly begins to assume the behaviors of a deceased animal, such a possibility seems likely. With the belief and anticipation that such a person is indeed reincarnated, the viewer is likely to unconsciously shape the behaviors he is expecting. It is valid to say that most normal parents are not always aware of the behaviors they shape in their children. The data from the areas of operant research and behavioral modification clearly show this. A woman sees her live child display a behavior which is similar to that of a deceased child. She inadvertently reinforces the new child's behavior by giving it attention or by even something as subtle as a smile and look. As with any conditionable organism, the child may reproduce the behavior and is reinforced once more. Through the normal processes of response generalization,

different behaviors are emitted by the child. Those which fit the criterion of the mourning mother, are reinforced and occur frequently. The mother concludes that this child is the reincarnated spirit of the deceased.

However it would be unfair to dismiss all possibilities with a behavioral wand. There may be more complex conditioning systems which allow one or more different patterns of behaviors to develop in the same spatial locus. Restated, two personalities may be displayed by the same person. A few well documented cases show that a syndrome called multiple personality does infrequently exist. Multiple personalities share characteristics of possession cases; periods of amnesia during episodes when the "other personality" was present is one such symptom. Unilateral awareness of both "personalities" by only one of the personalities is another. Are such cases merely aberrant amplifications of otherwise natural processes characteristic of all human animals? Suppose the inhibitory processes which prevent us from responding motorically and verbally to the environment during our dreams was lost? A person would not recognize the existence of such a personality which only existed when dreams were occurring. The responses to external events during this time would be state-dependent upon the dream sequences and memory processes in operation then.

We so arrogantly believe in the absolute and independent

existence of our "self" as a conscious state. Extension of behaviorist concepts suggest that these "feelings of consciousness" and "awareness of self" are also nothing more than responses to environmental demands on the system. These responses are emitted or elicited just as we move our hand to avoid a fire or answer the teacher with a series of verbal statements. "Feelings of consciousness", and the sensations that a person is a "self" are parts of the behavioral matrix which has been conditioned to occur at one level of the organism's bioelectrical states. Could there then not be other behavioral systems with their equivalence of what we call "consciousness" at different biological activity levels in the same organism? Would the behavioral pattern called "you" which is responding to this book right now, recognize them?

The above arguments and suggestions are just a few of the many options that must be fully explored and exhausted before any definite comment can be made on reincarnation or possession cases. Experimental verification is difficult because we are attempting to measure the measurer with the measurer, behavior with behavior. The questions may be nonsensical. Nonetheless some experimenters have attempted to grip the question and the reader is referred to Ian Stevensons' Twenty Cases Suggestive of Reincarnation for further reference.

Chapter X

SUMMARY OF RESULTS

A total of 592 reports of parapsychological experiences have been analyzed. In this chapter where possible, comparisons will be made between the types of psi-classifications. As mentioned in earlier chapters, one of the main purposes of this book is to detect patterns in the experiences which people consider parapsychological or unusual. From such patterns, perhaps the first steps can be started to begin experimental replication. Similarities and dissimilarities between the types of reports analyzed in the various chapters may give direction. Elementary statistical analysis is also given in this chapter. It is emphasized, that statistically significant differences between various components of paranormal types do not "prove" anything about the basic mechanisms controlling unusual verbal behavior. For now we must assume that at best they show a pattern in the way people's verbal behavior is reported. However if by using these patterns, easier replication of paranormal phenomena can be accomplished in the laboratory under experimental conditions, then the exercise was of worth.

The percentage breakdowns for each type of paranormal experience are shown in Table 5, and include T-C (telepathy-

clairvoyance), PRE (precognition), APP (apparitions), OOBE (out-of-body experiences), PM (post-mortem events: non apparitional), US (unusual sensory events), UK (unusual kinetics) and MX (mixed categories). Column A indicates the percent distributions of report types when apparitional reports are included, regardless of previous classifications. Column B indicates the percent distributions of report types when apparitional reports also included as T-C or precognitive cases were subtracted from the total. Both columns indicate that 70% to 73% of the experiences people classify as paranormal, include telepathy, precognition and apparitional types of experiences.

Daily occurrence times of paranormal experiences are reported to take place predominantly during night hours which was defined in this text as between 8:00 p.m. and 7:59 a.m. The percent occurrence of paranormal types in day or night hours are given in Table 6. OOBE cases showed the least tendency to occur during the night hours (55%) while T-C occurrences showed the greatest tendency to occur during the night hours (85%). The average of all psi-types showed night-time occurrences predominated in 71% of the expressions which the sample population considered paranormal. Chi-square analysis showed that T-C events occurred significantly more at night than did precognitive cases ($X^2 = 7.37$; $p < .01$) or OOBE experiences ($X^2 = 13.70$; $p < .01$). However precogni-

TABLE 5. Percent Of Total Paranormal Cases Analyzed For Each Experience Type.

Type	N	$\%_A$	$\%_B$
T-C	164	24.7	27.7
PRE	128	19.3	21.6
APP	193 (122*)	29.1	20.6
OOBE	50	07.5	8.4
PM	37	05.6	6.3
US	18	02.7	3.0
UK	45	06.8	7.6
MX	28	04.3	4.8
	663 (592)	100.0	100.0

* 122 excludes T-C and precognitive apparitions.

$\%_A$ with T-C and precognitive apparitions. Also included in T-C or precognitive categories.

$\%_B$ with T-C and precognitive apparitions recorded only in T-C or precognitive categories.

TABLE 6. Percent Of Reported Cases For Each Type* Of Paranormal Experience Occurring During The Day And Night.

Type	Day %	Night %
T-C	15	85
PRE	30	70
AP-PM	25	75
AP-O	21	79
OOBE	45	55
US	34	66
UK	40	60
PM	25	75

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*

T-C telepathy-clairvoyance

PRE precognition

AP-PM apparitions; postmortem

AP-O apparitions; other

OOBE out-of-body-experiences

US unusual sensory experiences

PM post-mortem phenomena: non-apparitional

UK unusual kinetics

tive experiences did not differ significantly from OOBEs in day-night occurrence. There was a marginal tendency for the apparition cases to also occur more frequently at night. Analyses were not made with the other types where the number of cases within the information required was less than 30.

Figure 15 shows the two-hour variations in percent experiences reported for T-C, precognitive and apparitional (both types), cases. Whereas T-C experiences are reported to show a general increase after 2000 hrs (8:00 p.m.) and decrease gradually after 0200-0400 hours, precognitive sensations peaked suddenly between 10:00 p.m. and midnight. In fact, 33% of the precognition cases occurred during this two-hour period. Apparition-type cases also showed a rise in occurrence after 8:00 p.m., with a sudden peak between the hours of 2:00 a.m. and 4:00 a.m., local time. Thirty-three percent of these cases occurred during this two hour interval. An interesting secondary peak in apparitional reports was shown between 2:00 p.m. and 4:00 p.m.

The seasonal variations for each type of paranormal experience are given in Figure 16. All types were plotted except PM cases, due to the small sample size. It can be seen that some seasonal variations are evident in different case types. Although considerable caution should be exercised concerning the implication of the following statements, it is interesting that similarity in curves does occur across some of the case types. T-C, post-

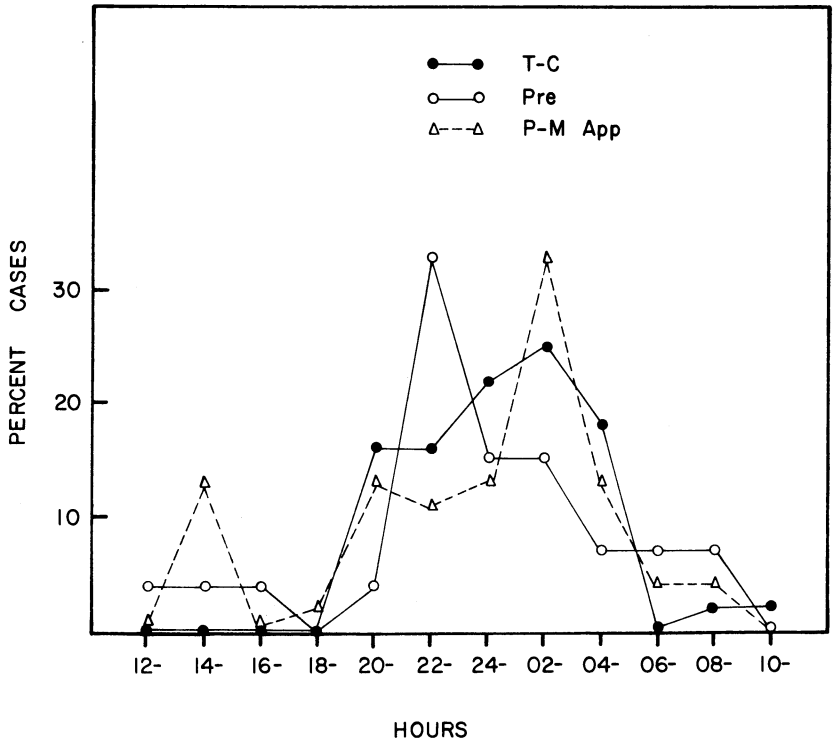


Figure 15. Percent of total cases as a function of time of day-night occurrence for T-C, precognitive and post-mortem apparition experiences reported.

mortem apparition and non-post-mortem apparition cases show a general pattern, with a peak in percentage cases during the summer season and a decrement in the fall. OOBE and unusual sensation categories reflected peak percentages in the spring season with declining percentages across the other seasons of the year. Precognitive and unusual kinetic occurrences displayed slight variations across seasons with a possible winter season peak. Whether these similarities are real and consequently suggestive of mechanism, or spurious, cannot be derived from the present data.

More precise information on monthly variation could be collected for only the T-C, precognitive and apparitional cases. The monthly percentage distributions of experiences in these case types are shown in Figure 17. In Chapter 3, analysis indicated that T-C experiences varied significantly from the monthly distributions expected by chance (assumed to be 8.4%/month). On the other hand precognitive cases did not show such significant monthly deviations. Comparison between T-C and precognitive experiences showed a significant difference ($X^2 = 20.0$ $p < .01$) with respect to monthly distributions. Apparition cases also showed such difference from precognitive monthly distributions, while no significant differences occurred between the monthly occurrence of T-C and apparitional experiences reported in this sample.

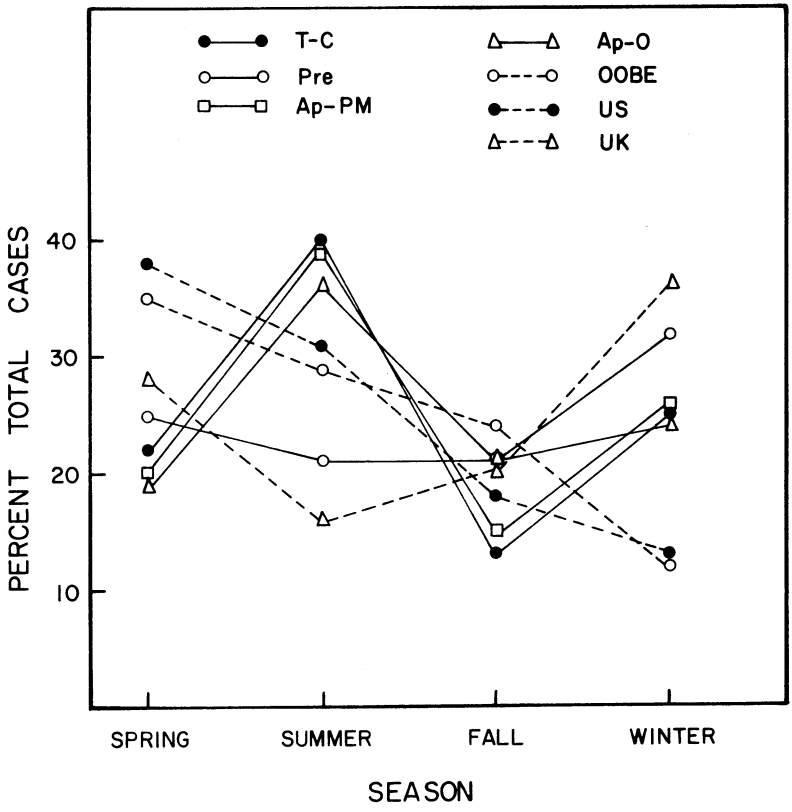


Figure 16. Percent total cases during the four seasons of the year for various types of paranormal experiences.

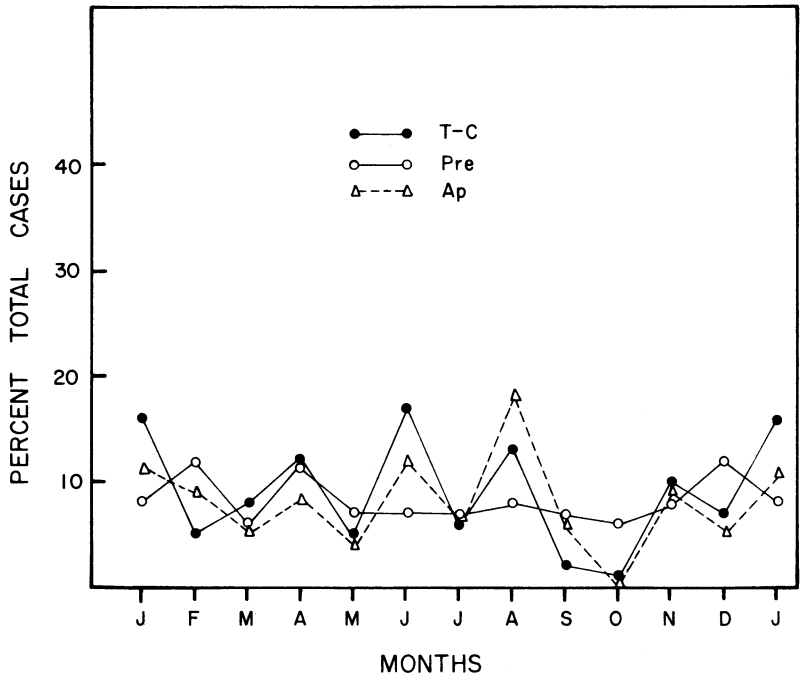


Figure 17. Percent total cases reported to occur during various months of the year for T-C, precognition and apparitional categories.

The percent cases for different experience types occurring in home, non-home or outside locations are shown in Table 7. AP-O cases were not calculated (NC). Home-based occurrences ranged from 50-88%, with unusual sensory events showing the least and post-mortem apparitions showing the most percentage distributions in this area. Chi-square showed that post-mortem apparition experiences occurred significantly more often at home than precognitive experiences ($X^2 = 9.81$; $p < .01$), or T-C experiences ($X^2 = 5.13$; $p < .05$). However post-mortem apparition cases did not occur in statistically significant manner more frequently at home compared to the smaller sample categories, including the unusual kinetic types.

For those experiences reported to occur within the spatial limits of the bedroom, case type percentages ranged from 29-84% (Table 8). OOBE, precognitive and T-C experiences show highest bedroom occurrences. Unusual sensations also show a peak in this area. The greatest discrepancy was seen with the unusual kinetic phenomena which occurred in the bedroom area only 29% of the time. Both non-apparition and apparition post-mortem experiences showed bedroom occurrences in the 60 percentile range. Bedroom-nonbedroom differences between the larger sample number categories of T-C and precognitive cases, were statistically significant ($p < .01$) from either the post-mortem apparition or unusual kinetic categories ($X^2 = 10.20$ and 6.76, respectively; $p < .01$).

The percentage of males or females which displayed the

TABLE 7. Percent Cases Of Different Experience Types Which Took Place In Home, Non-Home Or Outside Areas

Type	Home %	Non-Home %	Outside %
T-C	73	7	20
PRE	70	6	24
AP-PM	88	5	7
AP-O	NC	NC	NC
OOBE	60	26	14
US	50	25	25
UK	55	------- 45 -------	
PM	65	------- 35 -------	

TABLE 8. Percent Cases Of Different Paranormal Experience Types Which Took Place In Various Rooms Of The Home.

Type	Bedroom %	Living room %	Other %
T-C	82	7	11
PRE	84	---------- 16 -------	
AP-PM	62	12	26
AP-O	NC	NC	NC
OOBE	87	7	6
US	87	---------- 13 -------	
UK	29	---------- 66 -------	
PM	67	---------- 33 -------	

putative role of the agent or percipient (reporter) in the various paranormal types are shown in Table 9. Values for some of the categories were not calculated or were presumed to be not-applicable (NA). "Presumed" is strongly stated since unknown stimuli associated with other human beings may be involved with these cases, although such involvement is not obvious from the reports. Female predominance in the percipient role ranges from 57-89%, with precognitive experiences showing the maximum effect. The categories which involved a relative increase in male percipient behavior, included the OOBE, "other apparition", and especially the unusual kinetic types. In the three categories of T-C, precognition and post-mortem apparitions, the male was the predominant agent in 62-68% of the cases.

The sleep-awake and dream-antecedent experience percent values for applicable categories are shown in Table 10. The existence of the sleep mode occurred in 56-59% of the cases for the PM-apparition and OOBE categories. Other types showed a tendency for the awake state. By awake, it is meant that the percipients reported they were awake and in a conscious state. Of those who were asleep, the range for dreaming as an antecedent condition for the phenomena is large. Both apparition and non-apparition post-mortem cases showed a minimum of reported dream experiences. These differences from T-C and precognition cases were apparent by

TABLE 9. Percent Cases Per Type Of Paranormal Category For Sexes In Roles Of Agent And Percipient.

Type	Agent		Percipient	
	M %	F %	M %	F %
T-C	68	32	28	72
PRE	62	38	11	89
AP-PM	65	35	24	76
AP-O	NC	NC	34	66
OOBE	NA	NA	36	64
US	NA	NA	17	83
UK	NA	NA	44	56

observation. T-C cases involved dream sequences as precursors or concommitants to the phenomena only 40% of the time while precognitive experiences utilized the dream mode in 78% of the sleeping cases. The chi-square value for this difference is 17.9; $p < .01$). Such tendency for precognitive experiences to occur in or as dreams during the sleep condition has been shown by other researchers as well. Nicol (1961) reported that 68.8% of the precognitive cases he investigated were in the dream mode. All other types of phenomena occurred in or as dreams in 21.2% of the time. If the four non-precognitive categories in the present study are averaged, it is interesting that only 15.5% of these experiences involved the dream mode. Sannwald (1963) compared only precognitive and contemporaneous (e.g., T-C) experiences. Of the precognitive types, 60% involved dreaming while within the contemporaneous types only 39% involved dreaming.

Data was not available in sufficient detail from the T-C and precognitive reports such that a discrimination could be made between sensory precursors to the experience and the experience itself. In many situations the two seemed indistinguishable. For example, precognitive experiences occur as dreams themselves. However two of the experience types for which calculations were made showed identifiable antecedent perceptions before the paranormal component of the experience. The apparition category (PM)

TABLE 10. Percent Cases In Different Types Of Paranormal Experiences Of Percipients Displaying Sleep, Awake, Dream Or Pre-phenomena Sensory Experience Behaviors.

Type	Sleep %	Awake %	Dreaming %	Pre-P %
T-C	47	53	40	NR
PRE	43	57	78	NR
AP-PM	59	41	5	44
AP-O	NC	NC	NC	NC
OOBE	56	44	10	62
US	--	--	NC	NC
UK	--	--	NC	NC
PM	36	64	7	NC

involved some specified type of sensory precursor before the apparition in 44% of the cases. Sensory precursors to the OOBEs were noted 62% of the time.

The sensory modalities in which unusual phenomena took place can be seen in Table 11. The modalities selected included vision, audition, visceral-proprioception, somesthesis and olfaction. Sensations classified in the visceral-proprioceptive category involved sensations of "meaningfulness" or "sudden compulsions". Sensations of touch, paralysis or various types of parathesia were included in the somesthetic category. With the exception of paranormal category types that are modality defined, such as apparitions (100% visual), there was a general trend for dominance in the visual mode. Less frequently reported modalities in order of most to least occurrence were audition, viscera-proprioception, somesthesis and olfaction. Of the total types calculated, 72% of paranormal experiences primarily took visual sensations. These figures do not include modalities of antecedent sensations which were frequently reported in the apparition and OOBE incidences. The unusual kinetics category was not calculated for specific mode of occurrence since the phenomena usually involved more than one modality at any given time.

The relationship between the putative agent and percipient for T-C, precognitive and apparition (PM) cases only were compared in Table 12. Presumably the agent was a member of the immediate family in 52-67% of the cases. Peripheral family members were

TABLE 11. Percent Cases In Each Paranormal Type Of Experience Occurring In Various Sense Modalities.

Type	PRIMARY MODALITY Visual	Auditory	Visceral	Somatic	Olfactory
T-C	60	22	10	8	0
PRE	60	17	17	2	4
AP-PM	100	--	--	--	--
AP-O	100	--	--	--	--
OOBE	100	--	--	--	--
US	50	28	--	11	11
UK	NC	NC	14	--	--
PM	32	24	------ Mixed (44%)---------		

TABLE 12. Percentage Distributions Of Various Relationships Between The Putative Agent (Human) And Percipient

Type	Immediate	Peripheral	Friend Acquaintance	Stranger
T-C	58	17	15	10
PRE	67	18	14	1
AP-PM	52	24	20	4

much less (17-24%) frequently reported as the putative agents with friends demonstrating similar percentage occurrences (14-20%). No discrimination of category was made between those agents described by the percipients as friends as opposed to acquaintances. The stranger category included those individuals with whom the percipient had been marginally familiar or supposedly had not known at all. Putative agents were from the stranger category in 1-10% of the cases. There was a marginally significant tendency ($X^2 = 4.06$; $p < .05$) for the precognitive cases to involve immediate family members as putative agents more frequently than the post-mortem apparition types.

The activity of the agent at the time of the reported experience by the percipient is shown in Table 13. This table also includes the OOBE types, where the agent and percipient are presumably the same person as well as the non-apparitional post-mortem cases where the putative agent is known to be dead. It can be clearly seen that the most frequent behavior displayed by the putative agents is death. Crisis behaviors, such as involvement in near death events or emotionally traumatic situations, are the second most frequent categories. Simple or non-emotive behaviors on the part of the agent at the time of the paranormal experience is comparatively infrequent. The exception to this statement can be found in the OOBE cases where non-serious and miscellaneous activities by the agent-percipient involved 66% of the cases.

TABLE 13. Activities (Percent Cases) Of Agent During Time Of Experience By Percipient.

Label	Death	Crisis	Not Serious	Trivial
T-C	54	25	13	8
PRE	48	41	----- 11--------	
AP-PM	100			
AP-O	--	--	--	--
OOBE	NA	34	38	28
US	NA	--	--	--
UK	NC	--	--	--
PM	NA	--	--	--

Chapter XI

CONCLUSION

Paranormal behavior. What are the controlling variables? Was this book a waste of the author's and reader's time? Was the attempt to discover patterns in verbal behavior as futile as mapping the sand patterns in the world's deserts? We could totally dismiss paranormal reports since they do not "measure up" to the 'scientific' rigor of reports published in journals by scientists. However the superior validity of a scientists experiencing what he wants or expects to see on an instrument panel over an average man experiencing what he wants to see as an apparition of the father, is a value judgement. Scientism prides itself upon replication, but what people say about paranormal things is also repeatable. Admittedly, verbal behavior is a measurement that can be swayed by conditions of "beliefs", "values", or "reinforcers", as well as physiological disturbances. But volt meters, chemical reactions and electroencephalographs are subject to mechanical failures and constant experimenter stupidity. We rarely hear about the latter.

On the other hand, we could accept verbal reports on paranormal experiences unequivocably. Argument could be made, and

validly so, that no instrument can explore the intricacies of private behavior. It is these types of experiences that are associated with the richness and complexity of the world we live in and not the sterile world of the laboratory. We might ask, in youthful and tactless vigor, what insights have psychology or the physical sciences given us into daily life. What am I? Where do I go when I die? Are my parents really dead? These are real questions and frankly they have not been answered very well. Should we then reject scientific methodology and deal solely with the reports of what people say?

Both contentions are in extreme. Reports of verbal behavior concerning spontaneous paranormal cases are important only in their value for producing predictions that can be tested in the laboratory. Experiment is the key, but not just any experiment. Simulation of natural spontaneous patterns must be completed as closely as possible. If paranormal experiences do not have a physical basis other than anistropic changes in the brain or as artifacts in the language system, then dismiss them once and for all. We no longer entertain the question of how many angels can dance on a pin's head. The statement is nonsensical. If paranormal experiences are of a similar nature, let them be eliminated from scientific enquiry once and for all. But if they are to be disposed, let this be done after the fairness of scientific attitude and the expansiveness of technique have been applied.

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	Σ	month
TC	164	102
~~164~~		
PC	128	104
PM	111	