Psi and the Imaginary Dream:

Including an Exploration with Monozygotic and Dizygotic Twins and Autogenic Training

> A Thesis Presented to the Faculty of the Department of Psychology University of Houston

In Partial Fullfillment of the Requirements for the Degree Bachelor of Science

> By Edward A. Charlesworth August, 1974

ACKNOWLEDGEMENTS

First and foremost I wish to thank Dr. William Braud for his direction throughout this investigation. Without the insight and guidance gained from many enlightening conversations this research would not have been possible. My appreciation for his faith and positive spirit concerning my ideas and the material investigated is immesureable.

I also wish to acknowledge my sincere thanks to Drs. Vincent and McCorquodale for their interest and valuable suggestions in the preparation of this paper, and for helping to make my undergraduate study at the University of Houston a very rewarding experience.

One of the most rewarding things for me is to also sincerely thank all of the people who participated as subjects in this research. You are the often overlooked <u>Ss</u> that are sometimes lost in the numbers and data. Without you this, or any other research involving humans, would not be possible. The donation of your time is deeply appreciated. A special thanks is also due to the mothers and fathers of the twins who allowed their children to participate, and often traveled great distances and waited patiently while the experiment was in progress.

Finally, a very special thanks to Robin Rupley for the many hours spent making appointments, helping with the experiment, and typing the final draft of this paper. Her help, moral support and smile made the hard times easy. Psi and the Imaginary Dream:

Including an Exploration with Monozygotic and Dizygotic Twins and Autogenic Training

> An Abstract of a Thesis Presented to the Faculty of the Department of Psychology University of Houston

In Partial Fullfillment of the Requirements for the Degree Bachelor of Science

> By Edward A. Charlesworth August, 1974

ABSTRACT

Three experiments are presented here which explore an original design for the induction of a psi-conducive state. This is called an imaginary dream and utilizes certain things to induce an altered state of consciousness: modified Jacobson's progressive relaxation, deep breathing exercises, guided visual imagery exercises through different environmental scenes, and environmental sounds to increase the "reality" of the visual imagery. Subjects using this imaginary dream scored significantly above chance (binomial probability of .0089) on a GESP task. For 40 subjects there were 28 hits and 12 misses. A control group was used with only a five minute impression period and once again using just the progressive relaxation part of the imaginary dream. Chance scores were obtained in both cases for the control group. In the second experiment 40 twins were used. Twenty (ten pairs) of these were monozygotic and twenty dizygotic. The dizygotic twins scored significantly above chance psi-hitting (binomial probability of .01), while the monozygotic twins tended toward psi-missing (seven hits and 13 misses). An explanation is given for the identical twins doing so poorly. A final experiment makes a preliminary exploration. into the utilization of autogenic training to increase the efficacy of the psi-conducive state induced by the imaginary dream. This final experiment had a total scoring distribution of seven hits and one miss.

TABLE OF CONTENTS

.

•

•

.

Cha	apter I	Page
١.	Introduction	. 1
11.	Experiment 1: Psi and the Imaginary Dream	11
	A. Subjects and agents	11
	B. Procedure	12
	C. Results	17
	D. Target-protocol correspondences for the experimental tape group of non-related subjects	24
	E. Symbolic target-protocol correspondences for the experimental tape group of non- related subjects	27
	F. Shared detailed visual imagery experiences	30
	G. Discussion	33
111.	Experiment 2: Psi, the Imaginary Dream, and Twins	38、
	A. Subjects and agents	39
	B. Procedure	40
	C. Results	40
	D. Discussion	45
1V.	Experiment 3: Psi, the Imaginary Dream, and Autogenics	50
	A.Subjects and agents	52
	B. Procedure	53
	C. Results	59
	D. Discussion	68

cont.

.

۷.	Bi	Ь1	io	g r	ap	bh	y	•	•	••	•	•	•	•	•	••	•	•	•	• •	•	•	•	•	• •	•	•	•	••	•	•	•	• •	•	•	•	 7	1
Арр	en	d i	x	1.	• •	• •	•	•	•	• •	•	•	•	•	•	••	•	•	•	• •	• •	•	•	•	• •	•	•	•	••	•	•	•	••	•	•	•	 . 7	7
Арр	en	d i	x	2.	• •	••	•	•	•	••	•	•	•	•	•	••	•	•	•	• •	• •	•	•	•	• •	•	•	•	• •	•	•	•	••	•	•	•	 . 8	7

1

.

.

•

.

.

LIST OF TABLES

•

.

.

Tab	ble	Page
1.	Questionnaire Items Regarding Belief, Mood, Attitude, and State	.15
2.	Summary of Questionnaire Responses for Experiment 1	.19
3.	Comparison of Psi Quotients in Experiments Using Different Procedures for Inducing Psi-Receptivity	.36
4.	Summary of Twin Questionnaire Responses for Experiment 2	. 41
5.	Summary of Questionnaire Responses for Experiment 2	.42
6.	Training Phenomena and Autogenic Discharges	.57
7.	Summary of Questionnaire Responses for Experiment 3	.60

.

.

LIST OF FIGURES

Fig	gure	Page
	Changes in Self-Rated Physical and Mental State for Experiment 1	20
2.	Comparisons of State of Consciousness and Body Awareness for Experiment 1	21
3.	Changes in Self-Rated Physical and Mental State for Experiment 2	43
4.	Comparisons of State of Consciousness and Body Awareness for Experiment 2	44

Psi and the Imaginary Dream

Including an Exploration with Monozygotic and Dizygotic Twins and Autogenic Training

> A Thesis Presented to the Faculty of the Department of Psychology University of Houston

In Partial Fullfillment of the Requirements for the Degree Bachelor of Science

Вy

Edward A. Charlesworth

August, 1974

I. - INTRODUCTION

Spontaneous cases and experimental laboratory studies indicate ſ certain variables may be related to the receptive psi process. These variables seem prevalent in certain "altered" states of consciousness and include such things as physical relaxation, passivity of mind, decrease in externally directed attention, and perhaps an increase of attention on internal sensations. Recently an abundant amount of literature concerning laboratory studies and this association between psi-receptivity and "altered" states of consciousness has emerged (Braud and Braud, 1973. 1974; Honorton, 1972 (a), 1970; Honorton and Harper, 1974; Stanford and Mayer, 1974; and Ullman, Krippner, and Vaughan, 1973). These different studies have explored many avenues of induction into a psi-conducive state, such as: profound relaxation through suggestion and progressive relaxation, hypnotically-induced dreams, REM dreams, regulation of auditory and visual perceptual inputs via a homogeneous visual field (Ganzfeld) and a repetitious auditory tape, and EEG-alpha biofeedback.

The experimental laboratory investigations of psi and the nocturnal dream have lent much support to the hypothesis that dreaming facilitates the psi process (Ullman, 1970). Contemporary studies of spontaneous case material also suggest that dreams are frequent vehicles through which psi effects are mediated (Rhine, 1962). The nocturnal dream may facilitate the psi process, but may not be the most efficient way of doing such. This may be seen more clearly by comparing experiments using different procedures for inducing psi-receptivity. This may be done by using Schmidt's "psi quotient" (1970). The psi quotient (PQ=1000 CR²/N) is

a measure of efficiency so that comparisons can be made when the probabilities of getting a hit are different and the samples of data are of unequal size. The review of the Maimonides dream ESP experiments for 1964-1969 yields a PQ of 28.9 (Ullman, Krippner, and Honorton, 1970). This is relatively low in comparison to different methods, such as the use of Ganzfeld stimulation and a repetitious auditory tape, where the PQ was 148.3 (Honorton and Harper, 1974).

The nocturnal dream may be inefficient in areas other than the PQ. One of these areas is the amount of equipment needed to experiment with psi and nocturnal dreams. The equipment includes that necessary to monitor REMs and EEGs. This apparatus, if not readily available, adds much additional financial burden to a researcher in a field where far too few research funds are available. Another factor involved is time. The use of nocturnal dreams involves having a subject come into the laboratory and spend the night. An agent may also be involved trying to send a target picture. Technicians or the experimenter must watch the monitoring equipment and wake the subject at different times to recall his dreams. The time involved is rather expensive in man-hours. Thus, there are several reasons why the use of nocturnal dreams in psi research may be limited.

The present study was an attempt to induce a state similar to the nocturnal dream. The experimental procedure used added more control and efficiency than possible with the nocturnal dream. Certain variables which have been shown to be related to psi by the laboratory studies of psi-receptivity and "altered" states of consciousness were incorporated

into the experimental procedure. This was accomplished by the use of an imaginary dream to induce an "altered" state of consciousness.

The background for the imaginary dream is eclectic. The initial idea was drawn from the literature on meditative techniques in psychotherapy (Kretschmer, 1962). Many different techniques have been used by the psychotherapist wanting his patient to reach a reasonable view of life. One technique developed by Carl Happich (1932) used breathing excercises and psychological visual imagery exercises. The first psychological exercise was called the "Meadow Meditation," and the patient repeated the words of the therapist and imagined that he was leaving the room and city, and going to a grassy meadow. After a number of 5 sittings, when the patient can freely do this exercise, Happich would then use a "Mountain Meditation." Instead of being led to a meadow, the patient is led to slowly climb a mountain. On the way up the mountain, before reaching the peak, he passes through a forest. Next, Happich would have his patient pass through a grove and reach a chapel. The patient enters the chapel and stays a long time. This was called the "Chapel Meditation." Happich felt that once a certain depth of meditation was attained, then the symbols (meadow, mountain, and chapel) would lose their ordinary meaning and have an "archetypal" value. According to Kretschmer (1962), "Happich took the level of consciousness he called 'symbolic consciousness', which seems to lie between consciousness and unconsciousness, as the point of departure for all creative production and, therefore, also for the healing process.

The purpose of the research presented here, using the imaginary

dream, was not to elicit "archetypal" symbols, but to induce a psireceptive state of consciousness. Certain features of Happich's technique seem to indicate that parts of it might well increase psireceptivity. A review of the experimental literature on hypnosis and psi (Honorton and Krippner, 1969) indicates it may be a vehicle for increasing the psi effect. One common factor which seems to characterize the different "meditations" of Happich and hypnosis is a dulling of logical thought. Meares (1960) in speaking of the atavistic theory of hypnosis says that the various ways of inducing hypnosis by either techniques that activate general regression, or by directly stimulating the dormant suggestive process, or by dulling the recently acquired critical abilities. With this dulling of logical thought in many patients, Meares and a number of her colleagues have had experiences that would appear to be explicable only on the basis of psi. Thus, hypnosis and psi have been shown to be related not only by experimental literature, but also by clinical literature.

The factor common to hypnosis and the different "meditations" of Happich, dulling of logical thought, seems particularly true with the "Meadow Meditation." Kretschmer (1962), without speaking of atavism, talks of the meadow as representing the world of the child: "When one meditates on the symbol of the meadow, he regresses to his psychic origin in childhood...he returns to the positive, creative basis of his life." With this regression comes the dulling of logical thought, whether the regression is atavistic or psychic in nature.

Another aspect of Happich's "meditations" is that it has been used as a successful clinical tool. Work done by Hudesman and Schmeidler (1971)

have shown that significant psi scores may occur after "good" psychotherapy sessions, while chance scores occur after poorer sessions. Although Happich's work was done some time ago, it is felt that if he was getting successful therapeutic results, possibly some of the rapport established with his patients was via psi.

Happich also placed great value and encouraged, both before and during therapeutic sessions, an increased passivity of respiration. Some literature is also available which relates breathing exercises and psi (Schmeidler, 1970).

Since much psi literature indicates that certain parts of the techniques used by Happich might possibly be related to psireceptivity, these have gone into developing the imaginary dream. The visual imagery scenes used in the imaginary dream include a meadow, forest (which Happich led his patients through on their way up the mountain), mountain, and a beach. The "Chapel Meditation" part of Happich's therapy was not used because of its strong symbolic value. The beach was used as a convenient imaginary place to lead persons to, while guiding them from the mountain and back to a normal consciousness. Also included to facilitate induction of the imaginary dream was the use of breathing exercises.

Certain other techniques have been used in developing the imaginary dream. One of these was the use of a modification of Jacobson's progressive relaxation. Braud and Braud (1973, 1974) have shown that a profound state of relaxation, induced via suggestion and progressive relaxation, may be conducive to psi-

receptivity. Additional evidence of this relationship has been shown by Stanford and Mayer (1974) in their replication of the Brauds' work. Because of this evidence, progressive relaxation was used as a tool to facilitate mental and physical relaxation prior to entering the imaginary dream.

A final technique used in developing the imaginary dream was the use of environmental sounds to increase the "reality" of the visual imagery exercises. Thus, when it was suggested that one imagine being in a meadow, he heard sounds associated with a meadow, such as birds, insects, and dogs.

Thus, there are four major components in the induction of an imaginary dream. These include:

- Modified Jacobson's progressive relaxation technique;
- Deep breathing exercises;
- (3) Guided visual imagery exercises through different environmental scenes; and
- (4) Environmental sounds to increase the "reality" of the visual imagery.

All four parts of the process were combined on a tape recording. The length of the tape was 33 minutes and the exact wording may be found in Appendix 1. Participants in the imaginary dream listened to the tape via headphones. This reduced outside stimuli that might be annoying to the state.

The instructions for the modified Jacobson's progressive relaxation included suggestions for the subjects to tense the various parts of their bodies, one part at a time, and then to relax them. Thus, they systematically relaxed all muscle groups from their feet to their head. These instructions were given in a pleasant and slow paced voice, with a very slight "echo" effect to increase the "richness" of the voice.

After the instructions for physical relaxation, the subjects were told to breath slowly and deeply, and to focus their awareness on their breathing. The voice guided them only enough to establish a pace and then the subjects were told to "continue to focus your awareness on your breathing." These deep breathing exercises lasted only a few minutes before the introduction to the visual imagery began.

The visual imagery exercises were introduced by a method employed by Masters and Houston (1972). This method suggests that the subjects, while remaining deeply relaxed, recollect very realistically a dream that they might have had as a child. They are then reminded of the details of the dream and are told that in the dream they would get out of bed, walk across their room to a closet, find a door in the back of the closet, and open it. The voice in this part of the tape, as well as the others, was very pleasant and slow. The tape was made while the experimenter was doing all of the same visual imagination and many suggestions were made to increase the vividness of the visual imagery and to help induce the state.

After the introduction to the imaginary dream and the suggestion to open the door in the back of the closet, it was then suggested that the subjects find themselves standing in a green, grassy meadow. Environmental sounds were then incorporated into the tape recording. These sounds included birds, insects, and dogs. They

were recorded from "Environments, Disc Two" (Dawn at New Hope, Pennsylvania) on the Atlantic label (# SD 66002) and were in stereo.

The subjects were then led by suggestion through the meadow. They were guided to do different things in imagination, such as: pick and smell a flower, feel the sunshine, smell the scent of spring, and feel the grass under their feet. All suggestions were given with a positive tone of voice and it was often suggested that they feel no anxiety, but feel very comfortable.

The tape suggested, at a point within the meadow, that the subjects look across the meadow and see something unusual. It was suggested that this was something they would not ordinarily see in a meadow. They were told to gaze at it and make a mental note of what it was.

Through suggestion, the subjects were then led through the rest of the meadow and into a forest. The environmental sounds changed at this point and became only birds. These birds sounded distant, thus giving the affect of being in tall trees. This was recorded in stereo from "Environments, Disc One" (Optimum Aviary) on the Atlantic label (# SD 66001). Appropriate suggestions led the subjects through the forest.

Within the forest it was suggested again that they see something unusual or out of place. This was suggested when they were also told to find a clearing in the forest, and the clearing contained the unusual sight. They were told to remember what had been seen and make a mental note of it.

Next, the tape suggested that the subjects imagine climbing up a mountain, after leaving the forest. Upon reaching the top, the subjects were told to look out in the distance at another mountain and see something unusual again. Again, the subjects were told to remember what they had seen.

Suggestions were then given for the subjects to climb down the other side of the mountain. At the bottom, the subjects were to find a beach and an ocean. Environmental sounds were again employed and the sound of waves was increased as the subjects neared the beach. These were recorded from "Environments, Disc One" on the Atlantic label (# SD 66001). The title of the recording was "The Psychologically Ultimate Seashore" and it was in stereo.

On the beach the subjects were guided to find a chest. They were then instructed to open the chest and see what would be found. They were told to take out and examine what was found and then put it back. Then it was suggested to close the chest and walk further down the beach.

The tape suggested that, after walking a small distance down the beach, the subjects lay down on the sand, close their eyes, and decide to wake up from the dream. They were told they were no longer on the beach, but back exactly where it was that the dream had started.

This experimental tape, for the induction of an "altered" state of consciousness by the use of an imaginary dream, was used in three experiments reported here. In experiment one, data was found to suggest that the imaginary dream is a good vehicle to facilitate the appearance of psi effects. In experiment two, the imaginary dream was used to compare the psi effect between subject-agent pairs composed of monozygotic and dizygotic twins. Experiment three, was a preliminary study into the use of autogenic techniques with the imaginary dream to further increase the appearance of psi effects. II. Experiment I: Psi and the Imaginary Dream

Subjects and Agents

Sixty individuals participated (39 females and 21 males), with each one serving as both agent and subject. Forty of these individuals listened to the experimental tape to induce an imaginary dream and twenty served as a control group. The majority were students at the University of Houston, who were either enrolled in an Introductory Psychology class and received experimental credit for participating, or responded to an advertisement asking for participants.

The majority of the subject-agent pairs were acquainted prior to the experiment and three of the pairs were married to each other. This was done to ease the scheduling of the participants. The Introductory Psychology students were asked to sign up with someone in their class who could also participate at the same time, if possible. When the respondents to the advertisement were contacted, they were asked if they knew someone they would like to participate in the experiment with. If the answer was affirmative, then an appointment was made for participation in the experiment. This was not possible in all cases and approximately half of the subjects were randomly paired.

Most subjects were interested in participating and seemed curious about research dealing with psi. None of the subjects had participated in such research before, nor had received any

prior training as a subject or an agent. Questionnaires answered by all subjects indicated that both experimental tape and control groups would be classified as "sheep" or believers in psi (see Table 1). None of the subjects indicated that they had ever had dramatic "psychic" experiences in real life, although some told of minor incidences that could be attributed to psi.

Procedure

The experimental tape group of subject-agent pairs was tested individually, with one partner serving as the agent first and the other as the subject. The roles were then reversed. In an attempt to avoid any bias on the second trial, by familiarity with the content of the experimental tape, the participants were told before hand exactly what the tape contained and the environmental scenes that they would imagine. Both roles of the experiment were explained to both partners prior to the experiment. This was done by having both partners read an explanation of the roles (see Appendix 2) which was reviewed verbally by the experimenter. The agent was told he would hear the same tape as the subject and that he was to do all of the visual imagery exercises just as the subject would be doing. The difference was that when the tape suggested to see something unusual, the agent was to incorporate the target picture (shown via a 35mm color slide) into his imagery. The subject was to let his visual imagery flow and see what the unusual sight was. The subject-agent pairs were told that this was an original design and that the experiment was an attempt to find if the imaginary dream was conducive to psi.

They were told that the experimenter did not know if it was or was not. This was done in an attempt to avoid the results being influenced by the subjects¹ expectations of the experimental design.

When the subject-agent pairs had decided who would take which role first they were separated into different rooms. These rooms were separated by approximately one hundred feet, six different rooms, and three different halls. The rooms were located on the same floor of the Science and Research Building at the University of Houston. Both the subject and the agent sat on a desk-type chair with a swivel base. The experimenter randomly selected a package of target pictures (see below) and placed them in the room with the subject. The subject then placed a set of headphones on, the experimenter left the room, closed and locked the door, and no more verbal contact was made with the subject until the trial was over. The experimenter than went back to the agent's room and randomly selected a slide of one of the pictures in the selected target pack for the agent to "send". The agent was reminded that his role was active and that he should, when the target picture was to be sent, concentrate on doing this and not be passive. The slide was then projected in the room with the agent (and remained projected throughout the tape's duration), headphones put on the agent, and the experimental tape started. At this point the experimenter left the room and locked the door behind him. No further verbal contact was made with the agent until the trial was over.

The experimental tape played for thirty-three minutes and both the subject and agent listened to it. This was made possible by two sets of headphones (Koss Pro-4aa) connected to the tape recorder (Sony TC-630). A shielded wire was connected to the tape recorder and headphones in the subject's room and the headphones in the agent's room. When the experimental tape was over and both the subject and the agent had been told (via the tape) to return to a normal state of consciousness, they answered questionnaires (see Table 1) and protocol sheets, and then rejoined the experimenter outside of their rooms. The subject before leaving the room to rejoin the experimenter had ranked the target pictures from the most likely being sent to the least likely being sent. The subject had also written down what images had been picked up in the different environmental scenes. The agent before rejoining the experimenter had written down how he tried to project the target picture. Thus, subjective and objective responses were gathered.

After questionnaires and protocol sheets had been received by the experimenter, the subject-agent pairs were given feedback as to how they scored objectively. The roles were then reversed.

The target pool consisted of fifteen target packs, each containing six pictures. There was a slide made of each target picture and this made it possible for the agent to never touch the actual target picture. The target packs bad been prepared beforehand by the experimenter and an attempt was made to use simple yet striking pictures. The criterion for placing pictures

TABLE 1

Questionnaire Items Regarding Belief, Mood, Attitude, and State

- 1. Do you believe in ESP?
- 2. Do you believe that scoring greater than chance (good scoring due to good ESP) can occur in an experiment such as the one you are now participating in?
- 3. Do you believe that you will score above chance in this experiment?
- 4. Rate your attitude or feeling concerning the experimenter in this experiment.
- 5. How is your mood today?
- 6. To what extent are you in the mood to participate in this ESP experiment?
- 7. Describe your <u>physical</u> state before the experimental tape started.
- 8. Describe your <u>mental</u> state before the experimental tape started.
- 9. Describe your <u>physical</u> state during the tape and visual imagery exercises.
- 10. Describe your <u>mental</u> state during the tape and visual imagery exercises.
- 11. How much do you believe that the state you were in during the tape could facilitate ESP?
- 12. How well do you like the target pictures?
- 13. How would you describe your personality?
- 14. During the visual imagery exercises how similar or different was your state of consciousness in comparison to your normal waking consciousness?
- 15. During the visual imagery exercises, was your awareness of your body (feelings or sensations, etc.) the same as usual or was it altered?
 - Note: All items were rated by the subjects on a ten-point scale beneath each item.

within each pack was that they were as dissimilar as possible (especially in form, color, and theme). All of the pictures were selected with the idea that they would be considered something not normally seen in any of the environmental scenes to be imagined. This ruled out many pictures where the main part might be a common animal (such as a cow in a meadow), a plant or tree (such as a pine tree in a forest), or any other similar item which might normally be imagined in environmental scenes. Each picture was identified by a letter or number and sealed in an opaque envelope. Six such envelopes were enclosed in each of fifteen larger opaque envelopes (lettered A through 0).

A control group of twenty subjects was also tested. The same basic multiple subject-agent design was used with the control group without the complete experimental tape. The control group had twenty trials with only a five minute impression period. After the impression period the subject wrote down any impressions received and then ranked the target pictures from most likely to least likely being sent. This same control group (the same subject-agent pairs) also had twenty trials using the progressive relaxation part of the experimental tape and a five minute impression period. After listening to the relaxation tape they were told that a five minute impression period was starting (via the tape). After five minutes they were told (also via tape) to return to a normal state of consciousness and write down their impressions and rank the pictures. Thus, the same subject-agent control group participated in the experiment in two capacities.

One capacity was as a control group utilizing progressive relaxation and a five minute impression period. The other capacity included only a five minute impression period.

The same controls as in the experimental imaginary dream part of the experiment were used with the control group. The control group was used to see if the results of the experimental tape group was a result of the imaginary dream or just the use of progressive relaxation to help induce the imaginary dream. The control group with just the impression period was to examine the use of multiple, non-trained agents in an experiment of this nature.

Results

For statistical analysis, rankings of the correct target of one through three were classified as hits and rankings of the taget of four through six were classified as misses. By this definition, there were 28 hits and 12 misses for the experimental group, yielding a binomial probability of .0089. Thus, significant psi hitting occurred with the use of the imaginary dream. The mean ranking for the correct target was 2.07 for the 28 hits and 5.17 for the 12 misses. There were 8 direct hits (rankings of 1 for the correct target picture). The level of psi efficiency, as measured by Schmidt's "psi quotient," was high. This PQ of 160 suggests that the imaginary dream is very conducive to psi.

The control group scored at chance both with just the five minute impression period and with the progressive relaxation and impression period. With the progressive relaxation and im-

pression period there were 10 hits and 10 misses. Without the progressive relaxation there were 12 hits and 8 misses.

The experimental tape for the induction of the imaginary dream was effective in producing alterations in the subjects' subjective states. There was a significant within-subject decrement in self-rated physical tension (Wilcoxon T = 34, N = 32, p < .005), and in self-rated mental tension (Wilcoxon T = 76, N = 33, p < .005). The tape with only progressive relaxation was also effective in producing decrements in such states: self-rated physical tension (Wilcoxon T = 0, N = 15, $p \lt.005$) and self-rated mental tension (Wilcoxon T = 5.5, N = 17, p \langle .005). There was no significant difference between the physical or mental shifts of the experimental and those of the progressive relaxation control group. There was no significant with-subject shift in self-rated physical or mental tension for the impression only control group. This impression only control group did differ significantly from the experimental imaginary dream group for decrement in self-rated physical tension (Mann-Whitney U with correction for tied ranks, z = 2.99, p < .01), and for self-rated mental tension (z = 3.06, p < .01).

There was no significant difference between the experimental tape group and either of the two control groups in terms of initial physical relaxation rating, initial mental relaxation rating, or impression period mental relaxation rating. The test used for this comparison was the Mann-Whitney U at an alpha level of .01.

Table 2

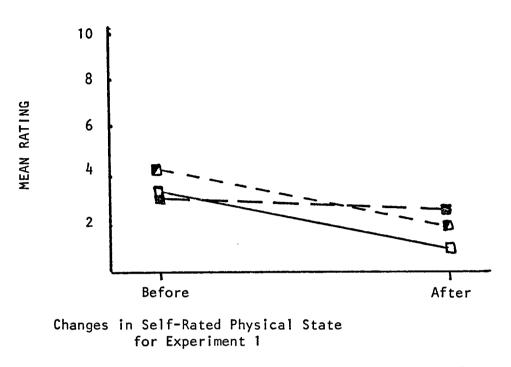
Summary of Questionnaire Responses for Experiment 1

		Mean Scores & Probabilities										
Val	riable	Imaginary										
		Dream	Control+	P	Control-	Р						
	Belief in ESP	2.18	2.35	n.s.	2.55	n.s						
2.	ESP possible in this											
	experiment	2.43	2.50	n.s.	2.70	n.s						
3.	Personal success in											
_	this experiment	4.70	3.50	n.s.	3.40	n.s						
	General mood today	3.20	2.45	n.s.	2.55	n.s						
5.	Mood to participate in											
	this experiment	2.73	2.05	n.s.	2.15	n.s						
6.	Attitude toward the											
	experimenter	1.95	1.60	n.s.	1.70	n.s						
7.	Liking for the target											
-	picture	3.75	3.45	n.s.	3.80	n.s						
8.	Initial physical state	4.00	3.30	n.s.	3.25	n.s						
9.	Impression state shift	2.13	1.65	n.s.	2.85	n.s						
	Physical state shift	-1.87	-1.65	n.s.	-0.40	<.0						
1.	Initial mental state	4.15	3.30	n.s.	2.95	n.s						
	Impression mental state	2.53	1.60	n.s.	3.05	n.s						
3=	Mental state shift	-1.62	-1.70	n.s.	0.10	< .0						
4.	Belief that state is											
	a conducive to psi	2.45	2.65	n.s.	4.35	<. 0						
5.	State of consciousness											
	(impression period)	7.08	6.45	n.s.	4.15	<.0						
6.	Body awareness					-						
	(impression period)	6.78	6.20	n.s.	5.05	< 0						
7.	Self-rated personality											
	(extravert/introvert)	4.48	4.90	n.s.	5.00	n.s						

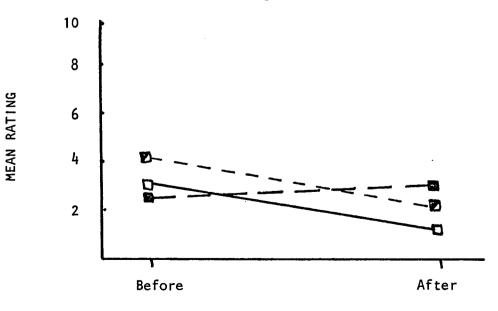
Control+ - group with progressive relaxation Control- - group without progressive relaxation

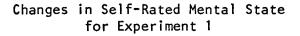
These probabilities computed by Mann-Whitney U with correction for tied ranks (alpha level .01)

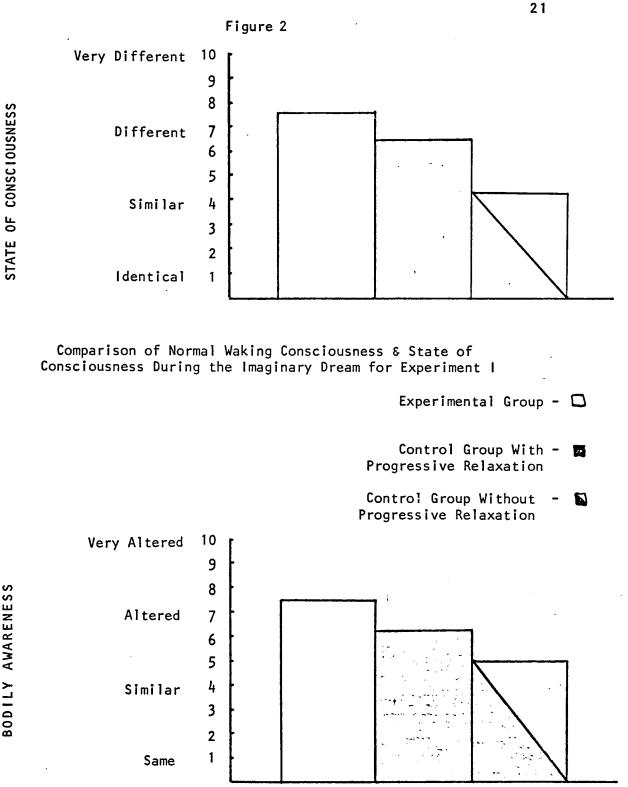
Figure 1



- Experimental Group 🖾
- Control Group With D Progressive Relaxation
- Control Group Without 🛚 Progressive Relaxation







Comparison of Bodily Awareness During Normal Waking Consciousness & During the Imaginary Dream for Experiment 2

BODILY AWARENESS

. There was no significant difference between the experimental group and the control group using progressive relaxation on the questions concerning similarity to or difference from waking consciousness during the impression period and the awareness of their bodies (questions # 14 and 15 of Table 1). The experimental group had a mean score of 7.36 for difference in consciousness and 7.18 for altered awareness of the body. The control group using progressive relaxation had a mean score of 6.45 for the difference in consciousness and 6.20 for altered awareness of the body. These scores were based on a scale from one to ten. Ten was extremely altered or different and one was no alteration or identical to the normal state of consciousness. The control group with only a five minute impression period did differ significantly from the experimental group on these two questions (Mann-Whitney U with correction for tied ranks; question #14, z = 3.97, p < .01, and question #15, z = 2.36, $p \lt .01$). The mean scores for this control group were: 4.15 for difference in consciousness and 5.05 for altered awareness of the body.

The impression period only control group differed significantly from the experimental tape group in belief that the state they were in would facilitate psi (question #11 of Table 1). The control group tended to believe that just the impression period did not facilitate psi. The difference between these two groups was computed using the Mann-Whitney U with correction for tied ranks $(z = 3.48, p \lt.01)$. The experimental tape group and neither of the two control groups differed significantly in terms of other variables which might have important influences on the outcome of the experiment (i.e., belief, mood, attitude, etc.). Thus, the difference in psi scores between the "dream" and relaxationonly groups is not confounded by subjective differences between the groups. The mean scores and probabilities are given in Table 2.

i.

Target-Protocol Correspondences for the Experimental Tape Group of Non-related Subjects

Example 1.

Excerpts from subject B.H.'s protocol sheet: In the forest, "Thick tall trees, sunlight filtering to the ground. Leaves and moss covered the ground. I saw a blue jay (bird) flying! In the clearing, I thought I saw a <u>car</u>." After opening the package of target pictures, B.H. reported "I felt funny when I saw the car target picture. I wasn't expecting to see it." B.H. ranked the target picture as the most likely being sent.

Target: A red Audi <u>automobile</u> on a pebble beach with a lake in the background and an orange sunset. The agent concentrated on sending only the automobile and not the beach, lake, or sunset.

Example 2.

Excerpts from subject C.M.: In the meadow, "I saw a <u>shiny iceberg</u>. One not too peaked." In the forest, "This time it was a tropical forest and I saw an ant <u>hill of salt</u>." C.M. ranked the target picture as the most likely being sent.

Target: An advertisement for Canadian Mist Whiskey. A bottle of the whiskey and a glass with some ice and whiskey in it were sitting on a tree stump. The background was a forest with tall trees and ferns. The agent concentrated on the picture by taking the bottle and glass out of the still scene and giving "the bottle to a <u>white rabbit</u>. He put the bottle under his arm and accepted a drink with <u>ice</u> in it." Example 3.

Excerpts from subject S.G.: "Definite feeling of a <u>phallic symbol</u>, possibility of a classic idea of a rocket ship." S.G. ranked the target picture as the most likely being sent.

Target: An advertisement for Gordon's Vodka. A <u>giant size bottle</u> of the vodka and some people standing around composed most of the picture. Some lemons and a martini glass also were in the picture. The agent concentrated on the bottle part of the picture which was shaped very much like a rocket ship or phallic symbol. Example 4.

Excerpts from subject M.C.: In the meadow, "A large mass of Jello, at least four feet high and six feet wide. It is dark blue or black. It quivers as if the wind was blowing on it. <u>Violin music</u>." In the forest, "A large, brilliantly white object. In fact so bright I can't see for sure what it is....it's too bright. But it is about twelve feet high. I can't see the base. A feeling of joy and beauty. <u>Violin music</u>." M.C. ranked the target picture as the most likely being sent and reported after opening the package of target pictures, "I feel an attraction towards the green-faced fiddler. I heard violin music."

Target: "The Green Violinist," by Chagall. This picture portrays a green-faced figure playing a fiddle. In the background there are several buildings. The agent concentrated on seeing the fiddler "sitting and playing."

Example 5.

Excerpts from subject G.H.: In the meadow, "Fairly flat, abundance of butterflies, soft green grass reaching about mid-calf. Saw something <u>gold and spinning</u> in the meadow and then it turned into a black and white blur." In the forest, "Very tall slender trees, very thick and close together. Somewhat of a damp atmosphere. Same gold and spinning object seen." G.H. ranked the target picture as the most likely being sent.

Target: Cartoon drawing of three windmills and a dike. Several people and farm animals were by the windmills. The agent concentrated on the arms of one windmill (which was gold) and reported: "Mostly the arms of the windmill interested me as they moved." Example 6.

Excerpts from subject B.K.: "Extreme sense of danger and foreboding during the walk in the meadow. Something large, dark and threatening in the background. Never clearly defined. Darkness, no sun, cloudy." B.K. ranked the target picture as number four.

Target: "Sleeping Gypsy," by Rousseau. This picture portrays a gypsy in a multicolored robe sleeping out on the desert. It is nighttime and hovering over the gypsy, as it is about to attack, is a lion. The agent reported: "Did not try to send complete objects...concentrated instead on forms...moon contradicted 'daylight'...lion-fear object, not peaceful." Symbolic Target-Protocol Correspondences for the Experimental Tape Group of Non-related Subjects

The following is set separate from the other target-protocol correspondences because of its symbolic nature and the fact that further investigation was done with the deliberate use of the target picture involved.

Excerpts from subject N.C.: In the meadow, "A white bird...But it was on his back, dead. More like a sea gull, pure white. The grass beneath the bird was brown, like frozen. The flower I picked up in the meadow was red and I wanted to go back and put it on the bird, but he was all bloated from being dead so long...I was afraid of it exploding on me. Weird feeling." N.C. gave the correct target a ranking of three.

Target: A magazine cover with a picture of an army tank exploding with flames occupying the major portion of the picture...The agent tried to project the picture as it appeared but reported, "1...was rather shaken by its subject matter." And, "With this particular picture and the harsh connotation it emits, it was rather difficult to be completely relaxed when its presence was imagined." The subject appears to have received the target impression at an unconscious level. The subject appears to be trying to deny and repress the target impressions somewhat. This is indicated by the target rank of three. In her bringing the target impression into her consciousness, she had to resort to symbols. This is very similar to dream symbols of things too emotionally charged to be dealt with on a literal basis. In this case the pure white bird could represent the dove of peace. When peace dies we have war and the bird

was dead. The fear of the bird exploding matches exactly the theme of explosion in the picture.

The subject was visually shaken and had been crying when she joined the agent and the experimenter. The experimenter, on reviewing the protocol sheet, decided to discard random target selection for a couple of subject-agent pairs and purposely inserted this picture as the target. This was done to find if the above report was coincidental and to find what the response of others would be to such an emotionally charged picture. It was decided that this data would not be used in the general pool of data because the random target selection was discarded and the target picture was deliberately selected. One day after subject N.C.'s experimental session was over, the explosion picture was used as the target for subject A.W. What appears to have happened with A.W. is a total blocking of the target picture from his visual imagery. He ranked it as the least likely being sent or a direct miss. The protocol sheet mentioned nothing related to the picture and mostly pleasant images. It is hard to discern whether this is due to subject blocking or the agent refusing to send it. The agent reported: "...picture filled me with anxiety. My physical state was very relaxed, almost sleep-like, but I felt constant mental anxiety about the picture, except in the meadow: there I felt very detached mentally and physically from it. On the mountain I felt a physical detachment, but a mental concern."

Two days later the target picture of the explosion was again used deliberately. Again the subject scored a direct miss and ranked the picture as the least likely being sent. This subject received no images

other than those of the environmental scenes. He reported: In the meadow, "... I tried to focus on image, but no response." In the forest, "... l looked into the meadow in the forest, but could not pick up any images." On the mountain, "...could not discern any special thing." And on the beach, "... I could visualize opening the chest, but saw nothing." This subject reported very good detailed visual imagery in all places except when it was suggested to see the target picture. Again it is hard to discern whether the subject blocked the image or the agent refused to send it. The agent reported: "I found it very difficult to relax and put myself in the meadow until I blocked the target picture from my mind. When relaxed, I did not want to look back at the target picture. Each time I did, I had cold chills and a very disturbing, uneasy feeling. Looking at the picture, I could only imagine death and destruction and how much I wanted the target picture to go away. How disturbing it was to my relaxed state of mind."

This seems to indicate that a control factor is involved with psi. The professional psychic very often receives impressions symbolically and though they may be interpreted correctly, there seems to be something "desensitizing" about the process of interpretation. This appears to be true about, not only psychic symbols, but dream symbols as well. The analytical aspect of interpreting symbols of an emotional event seems to remove some of that emotionality.

Shared Detailed Visual Imagery Experiences

In at least one case the subject-agent rapport seemed to extend beyond just information based on the target picture to the sharing of detailed environmental and spontaneous images. This is relatively unique, but has been reported in the literature on mutual hypnosis. Mutual hypnosis is a technique where two subjects fill the roles of both hypnotist and hypnotized. Subject A hypnotizes subject B, and then when subject B was hypnotized, he would be given the suggestion to hypnotize subject A. This would continue while trance depth was being deepened. Tart (1969) reports a case of mutual hypnosis where the suggestion for the subjects to dream led to both subjects imagining many of the same detailed experiences. These shared experiences were not verbalized during the experiment, but were brought out in a postsession interview.

One subject-agent pair, C.S. and E.G., shared many similar experiences and recorded many of these on the protocol sheets before the post-session interview. Additional details were reported after the subject joined the experimenter and agent. In the first trial C.S. was the subject and E.G. was the agent. E.G. imagined her meadow as being made of rolling hills, green grass, and daisies. The subject C.S.'s protocol sheet read for the description of the meadow, "Gently rolling with green clover, dotted with daisies." E.G. also projected a road when leaving the forest and starting to climb the mountain. She reported, "I crossed a road before it (the mountain) became very steep." The subject C.S. confirmed crossing the road, which was blacktopped, at the same point in her visual imagery, and further confirmed many other detailed similarities in the meadow and the forest.

When the subject-agent role was reversed, further similarities were reported both in writing on the protocol sheets and verbally after reuniting. This time the subject, E.G., reported on her protocol sheet: "The meadow was rising before me. No valley. Mainly green grass and wheat colored tall grass...old wooden boat...like aluminum skiff flat-bottom, very weathered." And in the forest she saw another road, "But it was dirt." The agent had written that she had not only imagined the target picture, but in the meadow had visualized apontaneously an "old delapidated wagon." She also had visualized the meadow just as described by the subject and further noted the name of the tall "wheatcolored" grass and said this was the type of grass on the farm where she was raised. Again the visualization of the road was confirmed and both saw it in the same place in the forest, which was different from the first time, and both agreed that this time it was a dirt road. Several other detailed similarities were discussed and both C.S. and E.G. seemed fully convinced that they had imagined the same environmental scenes and details in both parts of the experiment.

These shared details seem to point toward a good telepathic rapport, but because there were no independent records of <u>all</u> the details made before they had an opportunity to talk to each other they do not constitute proof, although both subjects did rank the target picture as a hit. This anecdotal material was given to illustrate that if telepathy was functioning in this experiment, it could extend far beyond the limits of just receiving correct impressions of the target picture. Some other cases similar to this seem to have occurred during this experiment, but the subject and agent did not verbally discuss the details and the protocol sheets are too sketchy to be conclusive.

.

Discussion

The results of this first experiment using the imaginary dream indicate that it is very conducive to psi. The above target-protocol correspondences illustrate subjectively how the psi effect may be mediated through the visual imagery evoked by the imaginary dream. There was also evidence of the effect coming through by auditory imagination (Example 4).

The objective data show that statistically significant psihitting may occur when subject-agent pairs without any prior training in psi or history of striking psychic experiences enter together into the imaginary dream state. These subject-agent pairs did not differ from the control groups in their belief in psi, mood (general or mood to participate in the experiment), attitude concerning the experimenter, liking of target pictures, initial physical and mental state, or physical and mental states during the experiment. The control group with only the five minute impression period did differ from the experimental group in belief that the state they were in was conducive to psi. Thus, the experimental and the control group, under both conditions with the above noted exception, were essentially the same in terms of various important subjective variables which previously have been shown to influence the psi process. There was a significant difference in state shift for the five minute impression period group and the imaginary dream group, but not for the progressive relaxation group. It should be noted at this point that even though the progressive relaxation group did not score above chance psi-hitting there can be no comparison between this

.

group's results and those of other experiments utilizing progressive relaxation (Braud and Braud, 1973a, 1973b; and Stanford and Mayer, 1974). The progressive relaxation used in this experiment was very brief and only used as an aid in the induction of the imaginary dream. This brief progressive relaxation version differed from those used in the other three experiments in several important respects: it contained suggestions for only physical relaxation and not mental relaxation, it was shortened and induced a much less profound state of relaxation, and there was no suggestion that this state was optimal for psychical functioning. The control group using the progressive relaxation was included in this experiment only to assure that the results of the imaginary dream group were not due to just the progressive relaxation. An additional bit of evidence that relaxation alone did not account for the high psi scores of the "dream" group" is that the self-rated mental and physical scores and shifts for that group did not differ from those of the relaxation only group; in spite of equal relaxation scores, the two groups differed markedly in psi performance.

The efficacy of the imaginary dream for induction of a psiconducive state may be evaluated by the high PQ of 160 when compared to similar studies involving different procedures for inducing psiconducive states. Table 3 was adapted from a recent article on the use of the Ganzfeld for induction of a psi-conducive state (Honorton and Harper, 1974). The table shows that the use of the imaginary dream exceeds the other methods in efficiency of induction into a psi-conducive state.

	Table	e 3
--	-------	-----

Procedure	PQ		
Hypnotic dreams	8.4		
Nocturnal dreams	28.9		
Sensory isolation (cradle)	27.9		
Sensory isolation (Ganzfeld)	148.3		
Imaginary dream	160.0		

Comparison of Psi Quotients in Experiments Using Different Procedures for Inducing Psi-Receptivity

*PQs for first four procedures from Honorton and Harper (1974).

There are several other aspects of the imaginary dream that make it a useful and convenient tool for psi research. First, the equipment required to replicate experiments involving the imaginary dream is rather inexpensive, especially in comparison to the equipment needed to monitor REMs and EEGs. Second, the agent knows exactly what imagery is occurring and may "fit" the target picture into such. With REM dreams this is not the case and it may make incorporation of the target picture into the dream difficult. Thirdly, the imaginary dream probably does not involve as much subconscious alteration and interference as does the REM dream.

The imaginary dream has a possible drawback. It may not be adequate for intensive single-subject studies. This has not been tested, but the novelty of the experience would possibly be lost with several repeated trials, and then psi-hitting might decrease. This possibly could be corrected by a series of imaginary dream tapes, each being different in content. This remains a topic for future research. III. Experiment 2: Psi, the Imaginary Dream, and Twins

The question of the genetics of psi talents has been periodically raised. Recently it was brought forth again (Zorab, 1973). It has been suggested (Ullman, 1966) that an approach to genetics and psi might be made through the use of twins as subject-agent pairs. A vast amount of anecdotal literature exists that would suggest that identical twins might have an extremely strong psychic bond. A good portion of this literature has been reviewed elsewhere (Gaddis and Gaddis, 1972), and therefore will not be discussed here. There also seems to be disagreement over whether twins do possess a good psychic rapport. Newman (1948) says, "It seems fairly certain that a psychic bond exists between identical twins." While Rhine (1966) claims that no special group, including identical twins, have been shown to be outstanding in psi ability.

The experimental literature dealing with psi in twins seems to be more in agreement with Rhine than with Newman. The report of the research committee of the American Society for Psychical Research for 1958 reported the use of a pair of female identical twins for psi research. These twins had reported prior spontaneous psychical experiences. The design of this experiment used EEG equipment to see if the readings might be indicative of psi. The results were negative and there appeared to be no evidence for psi in the EEG records. Rogers (1960) tested six identical twins under GESP conditions. Again the results were not significant as a whole. Nash and Buzby (1964, 1965) tested 11 pairs of identical and 14 pairs of fraternal twins. There was no direct evidence of psi, nor was there any significant difference

in the overall scoring of these two twin groups. The identical twins did show a greater tendency to vary in the same direction when the identical and fraternal pairs were divided according to whether the session scores for both members varied in the same direction from chance or in opposite directions. Duane and Behrendt (1965) used 15 pairs of identical twins in an attempt to induce extrasensory EEGs. Extrasensory induction was defined as the appearance, without conventional elicitation, of alpha rhythms in one twin while it was being evoked in the other. Two pairs of their twins did show this ability. Dean (1966) in an attempted replication of Duane and Behrendt's work found no evidence for extrasensory induction. Dean used ten pairs of identical twins and, "One of Duane's pairs was tried. The conditions were very poor and no difference was found." Barron and Mordkoff (1968) attempted unsuccessfully to produce evidence for extrasensory empathy in nine identical twins.

The above research shows no evidence that identical twins might be "natural born telepathists." The above research also seems to have a common factor underlying all of the studies. This is that the methods used did not involve the use of a psi-condusive state. For this reason, and because of the large number of anecdotal stories that continuously arise about the unusual rapport of identical twins, it was decided to undertake research involving twins and the imaginary dream.

Subjects and Agents

Twenty monozygotic twins (ten pairs) were used in this experiment. Compared against these were twenty dizygotic twins (ten pairs). There

were fourteen female and six male monozygotic twins, and ten female and ten male dizygotic twins. All of the dizygotic twins were same sex pairs. These twins were found by their response to a classified advertisement in the Houston Post newspaper, announcements on two Houston radio stations, handouts posted on the University of Houston campus and the Baylor University bookstores, and by contacting pairs of like-sexed individuals with identical last names that were found in Houston area high school yearbooks. The mean age for the monozygotic twins was 15.3 years and for the dizygotic twins, 16.1 years. Both groups would be classified as "sheep" by their mean scores on questionnaires that they answered. The groups did not seem to differ except for being mono- or dizygotic.

Procedure

The design of this experiment was identical to that of experiment 1. The only difference was that each subject-agent pair was composed of a pair of twins.

Results

For statistical analysis, once again, rankings of the correct target of one through three were classified as hits and rankings of four through six were misses. By this definition, for the group of monozygotic twins there were seven hits and 13 misses. This was nonsignificant psi missing with a binomial probability of .13. The group of dizygotic twins scored 15 hits and five misses yielding a binomial probability of .021 and significant psi hitting. The mean psi score for the monozygotic twins was 3.95, and for the dizygotic twins was 2.65. There was a significant difference between the two groups at the .0125 level when the psi scores

Table 4

Summary of Twin Questionnaire Responses for Experiment 2

Variable		SCORES Dizygotic
1. Age	15.3	16.1
2. Sex	14F, 6M	10F, 10M
 Dress alike as children (1=very often, 10=never) 6.10	4.55
4. Enjoy or resent being a (1=enjoyed it, 10=resen		3.50
 Knowledge of twin's tho or knowledge of what tw going to do before it w (1=often, 10=never) 	in was	4.25
6. Ever feel pain at same twin was hurt (1=yes, 10=no)	time 6.95	7.30
7. Ever get sick at same t twin did (1=yes, 10=no)	ime 5.10	6.05
8. Presently living with t	vin 10 prs.	7 prs.
9. Do things and go places twin (1=often, 10=never		3.30
0. Have simiłar likes and (1=several, 10=none)	dislikes 3.15	3.25
1. Work together or compet each other (1=work together, 10=co	-	4.45
No significant difference by Mann-Whitney U with cor level:u01).	between any variables. rection for tied ranks	Computed (alpha

,

.

.

Table 5

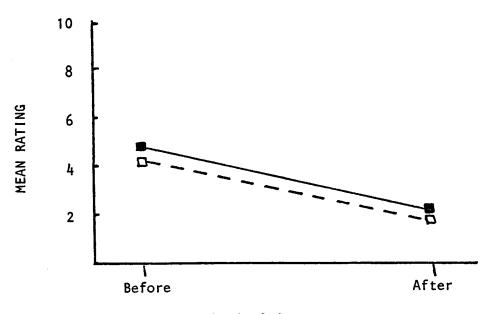
.

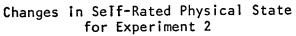
Summary of Questionnaire Responses for Experiment 2

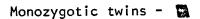
	Mean S		
Variable	Monozygotic	Dizygotic	P
1. Belief in ESP	3.30	3.60	n.s.
2. ESP possible in this experiment	3.36	3.55	n.s.
3. Personal success in this experiment	5.20	4.70	n.s.
4. General mood today	3.65	3.15	n.s.
5. Mood to participate in this experiment	2.75	2.90	n.s.
6. Attitude toward experimenter	2.55	2.70	n.s.
7. Liking for the target picture	5.25	4.05	n.s.
8. Initial physical state	4.75	4.15	n.s.
9. Impression physical state	2.45	2.25	n.s.
0. Physical state shift	-2.30	-1.90	n.s.
1. Initial mental state	5.80	4.20	n.s.
2. Impression mental state	2.65	2.60	n.s.
3. Mental state shift	-3.15	-1.60	n.s.
4. Belief that state is conducive to psi	3.50	3.40	n.s.
5. State of consciousness (impression period)	6.90	6.40	n.s.
6. Body awareness (impression period)	6.40	6.40	n.s
7. Self-rated personality (extravert/introvert	:) 5.30	3.25	p < .

These probabilities computed by Mann-Whitney U with correction for tied ranks (alpha level .01). . . **.** ·

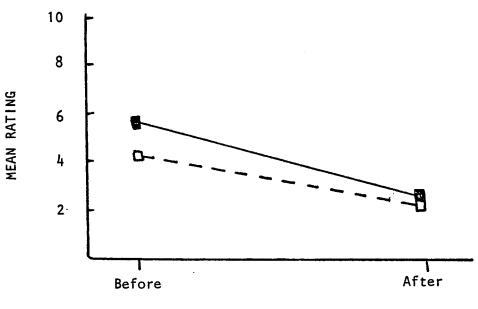
.





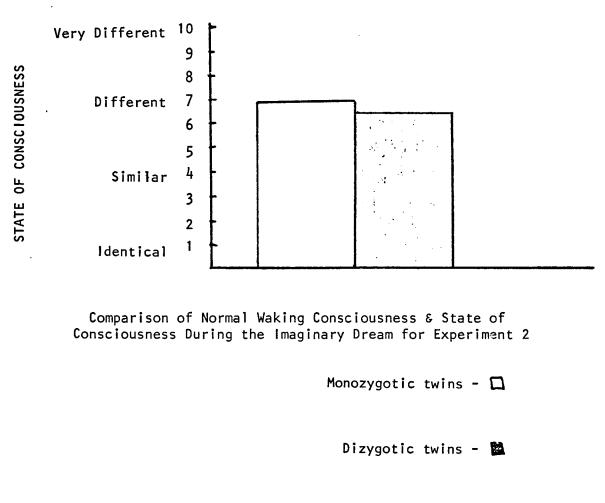


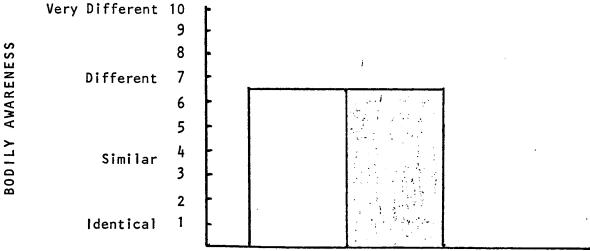
Dizygotic twins - 🖸



Changes in Self-Rated Mental State for Experiment 2

Figure 4





Comparison of Bodily Awareness During Normal Waking Consciousness & During the Imaginary Dream for Experiment 2

of these two groups were compared (Mann-Whitney U for tied ranks, z = 2.24). The imaginary dream was effective in altering the subjects' subjective physical and mental tension. There was a significant withinsubjects decrement in self-rated physical tension for both of the groups (Wilcoxon matched-pairs signed-ranks test: for the monozygotic twins T = 2.5, N = 15, $p \lt .01$; and for the dizygotic twins T = 24.5, N = 17, p <.01). The same was true for self-rated mental tension for both groups (Wilcoxon T: for the monozygotic twins T = 15, N = 17, p < .01; and for the dizygotic twins T = 26.5, N = 18, p < .01). The different groups of twins did not differ significantly on any other variables which might have important influences on the results of the experiment (i.e., belief, mood, attitude, and certain other states), with the exception of their self-rated description of their personality in terms of intro- and extraversion. The dizygotic twins were significantly more extraverted than the monozygotic twins (Mann-Whitney U for tied ranks, z = 2.93, $p \lt .01$). This was the only significant difference indicated by any of the questions answered by the twins (see tables # 4 and # 5). 1

Discussion

The results of this second experiment using the imaginary dream shed some light on the problems involved with the search for a genetic basis of psi. When the experimenter started this experiment it was thought that the monozygotic twins would be superior psi-hitters. This was not true and they tended toward psi-missing, while the dizygotic twins scored significant psi-hitting. The experimental design with the use of the imaginary dream was demonstrated to be condusive to psi by experiment one. Therefore, it is felt that an explanation is due for the scoring of the monozygotic twins.

Dr. James Shields discovered forty-four pairs of identical twins who had been separated from each other. Brought up apart these monozygotic twins have such parallel lives that Dr. Shields comments (1962), "Twins having the least contact as children are on the whole more alike than those who sent to school together." This might well be the most important statement for the psi researcher wishing to study twins. A glance at a different relationship might help to explain this and to understand the twins' data.

The mother-child relationship in the early postpartum phase is probably the first place for an extended psychic rapport to occur. The neonate is nonverbal, though he is highly vocal. This vocalization can indicate distress, comfort, hunger, or satiation. But, at times, it seems that the interaction between mother and child extends far beyond this limited repertoire of signaling. A mother might have the sudden urge to check on her child only to find him in need of her. The mother might say this was a case of woman's intuition.

Such extended rapport has been described by clinical observers as, "...the mother and the neonate have not yet delineated the ego boundaries. Their respective ego boundaries are merged into one," "postpartum gestation...," "...continued functional unity of the motherchild hual...," or the "primary unit." Ehrenwald finds these terms lacking and resorts to the telepathy hypothesis (1971). He continues to explain how telepathy will be replaced by speech. When the child can communicate his needs through normal sensory modalities and is

gaining in individuality, he no longer needs telepathic communication in most situations. Speaking of this Ehrenwald (1971) says, "As this (separation-individuation) comes to pass, the direct sharing of psychic processes between mother and child, is no longer necessary--nor indeed possible. The child can monitor his own environment. He can ward off excessive environmental stimuli from outside. He can direct his actions toward external objects. He can express his needs in words. At the same time, the earlier telepathic patterns of communication become rudimentary. In fact, he erects increasingly effective barriers against their intrusion into the confines of his personality. Telepathy runs counter to the process of individuation-separation. With increasing vehemence the child protests against continued telepathic encroachment from outside: he wants to 'do his own thing,' however nebulous that may be." If the separation-individuation process is strong between the mother and the child, then this process must be even stronger between two people who look alike and are raised together.

Newman (1948) talks of two different types of twins. One type enjoys being a twin and may never want to be separated. These twins very often dress alike. The other type is a reluctant twin. This type of twin will resent the fact of having another "self" and will do everything to seem different. It appears from the present study that the identical twins, in large, have separated into two unique individuals. The questionnaires concerning the attitudes of twins showed no objective difference (table #4). This might be explained by a few examples drawn from the present study. First, on more than one occasion the twins would come in to participate in the experiment and be dressed very nearly

alike. Shirts might be different in color, but identical in print. Many other similarities would be noticeable. Still, these same twins would answer objectively on the questionnaires that they never dressed alike. Another example drawn from the present study finds a twin objectively claiming to enjoy being a twin. This same twin later told the experimenter that he "would not wish being a twin on anybody." It seems that the twins might be practiced in the art of denial and repression. The individuation process is so strong with monozygotic twins, and their separation so profound, that as a group they tend to shut out the psychic encroachment of each other. The fraternal twins do not have the pressure of another "self" and do not have to strive so hard for identity. Thus, the fraternal twins may form a team and in an experiment such as the one presented here, get twice as many direct hits and one-sixth the number of direct misses. That the monozygotic twins would score as such was indicated by their answers on the question concerning their personality. This was the only question where the two groups of twins differed significantly. The identical twins self-rated themselves as being more introverted and thus as a group it appears that they tend to be less gregarious. This would agree with the way they scored, for if one introverts himself then he would probably shut out, not only normal contact with individuals, but psychical as well.

There should be no conclusion drawn from this present study that identical twins are not "natural born telepathists," or that they should not be used for future psi research on genetics. The researcher working with psi and twins can control for this individuation process. Shields

(1962) controlled for this by using twins that had been raised apart. One could also try to use twins before they reach the age where the struggle to be an individual is very strong. The mean age for the twins in the present study was 15.7 years and this is the age when an individual is seeking identity, whether he is a twin or not. A more sensitive instrument to measure the way a twin might feel about his unselected role would also be helpful.

No doubt the stories about twins thinking the same thing at the same time, about twins and pain-sharing, and even about the macabre simultaneous deaths of schizophrenic twins are all true. These are true, but they are also exceptions. It is not the norm for twins to remain as one. Doctors often tell the mothers of newborn twins that they should not dress them alike and they should help them become individuals. Educators often put twins in separate classes. A twin is called by his "other's" name and decides that he will be recognized the next time. The result of this is that twins, at least the majority of identical twins, have less of a psychic rapport than people who have never met, and can with efficacy shut off psychic encroachment from each other.

IV. Experiment 3: Psi, the Imaginary Dream, and Autogenics

The first experiment using the imaginary dream led to data which suggested that such a state was effective in facilitating the receptive psi process. The experiment presented here adds an extra variable in an attempt to gather data related to increasing the receptive psi process. This extra variable was the use of autogenic training. Autogenic (self-generating) training is a technique developed by J. H. Schultz and has its origin in Oscar Voqt's research on sleep and hypnosis which was carried out in the Berlin Institute before the beginning of this century. Some of Vogt's patients discovered, after a few hypnotic sessions under his guidance, they could enter into a state very similar to a hypnotic trance by themselves. These "autohypnotic" exercises helped reduce tension and fatigue, and were called by Vogt "prophylatic restautohypnosis." Schultz, stimulated by Voqt's work, investigated the question of hallucinations in normal persons and found many of his hypnotized subjects reported experienceing two types of sensations: feelings of heaviness, usually in the extremities and often generalizing to the whole or a large portion of the body, and a feeling of aggreeable warmth. Questioning whether just the thinking of heaviness and warmth could lead to a state similar to hypnosis eventually led to the development of the first two standard exercises of what became autogenic training. Because of the self-directed nature of autogenics, an active role and responsibility were given to the subject and elimination of dependence on the hypnotist was made possible.

Since Schultz first developed autogenic training and therapy much data has been collected and many special exercises and techniques have been developed. Only four of the basic six standard exercises were utilized in this experiment and these were based on three main principles: (a) reduction of exteroceptive and proprioceptive afferent stimulation, (b) mental repetition of psychophysiologically adapted verbal formulas, and (c) mental activity conceived as "passive concentration" (Luthe, 1971).

Autogenic training has been successfully used with clinical disorders (Schultz and Luthe, 1961) such as: psychosomatic disturbances including chronic constipation, bronchial asthma, cardiospasm, sleep disturbances, and peptic ulcers; motor disturbances such as writer's cramp and stuttering; and behavioral disorders such as states of anxiety and phobias. More recently (Sargent, Green, and Walters, 1972) Autogenic Training has been combined with biofeedback in the treatment of migraine and tension headaches. From these various literature there have been several observations made which indicate that autogenics could be useful in the psi process. First, it appears that social contact becomes less inhibited and more n**atur**al when a person is practicing autogenics (Luthe, 1962). This would probably indicate an increased empathy or opening up with people, and thus be helpful for receptive psi. Second, with the help of the autogenic Standard Exercises it seems that unconscious material becomes more readily available (Luthe, 1962). If this is truethen it might also be a factor that would increase the receptive psi process, because it has been hypothesized that psi might be a

system that works by activating or triggering memories (Honorton and Harper, 1974). Thus, the autogenics might work towards increased sensitivity by making memories more readily available. Lastly, the literature on autogenics indicates very clearly that subjects practicing it report reduced stress, fatigue, and tension (Schultz and Luthe, 1961). The relation of such reductions and psi has already been established, and this was discussed in the introduction to Experiment One. It was felt that this reduction of tension might be more profound if the use of autogenics was combined with the imaginary dream.

Subjects and Agents

The subjects were four white females. One was a part-time student at the University of Houston; the others were not connected with the University. None of the subjects were familiar with psi research and they had not participated in such an experiment before. They had been asked by the experimenter to participate in this study and all had been personal friends of the experimenter prior to the experiment. They had been asked to participate because they had all practiced meditation and thus, they were familiar with disciplining the mind. It was felt that this was important, because most of the people using autogenics had done so as part of therapy. These people, therefore, were motivated to do the autogenics because it could eliminate the ailment for which they were in therapy. Other subjects had started in the training program for the study presented here, but they failed to practice the autogenics with enough regularity to produce profound results. The four subjects used in this

study would all be classified as "sheep" and all scored their belief in psi as a number one (the highest possible belief on the scale given).

Procedure

The first half of this experiment was designed exactly as Experiments One and Two. Thus, there were two subject-agent pairs and each participated in the imaginary dream before the autogenic exercises were practiced. These same subject-agent pairs participated in the imaginary dream after practicing the autogenics and this will be discussed later.

After participating in the imaginary dream for the first time, the main principles and the first formula of the autogenic exercises were explained to the subjects. It was explained that the exercises should be practiced in a quiet, dimly lit room, with restrictive clothing loosened or removed. This would help reduce the afferent stimuli. Two possible positions were suggested: horizontal or sitting. Descriptions of these positions, as explained in the autogenic literature (Luthe, 1969), were given to the subjects. The subjects were asked to close their eyes while doing the exercises. It was also suggested that any active innervation of the eye muscles should be avoided. It was explained that if they tried to maintain any certain eye position while the eyes were closed, it could cause side effects such as headaches (Luthe, 1969).

After briefing and practice with the above methods of reduction of afferent stimulation, the first standard formula and the concept of passive concentration were introduced to the subjects. The first

formula is, "My right arm is heavy" (for right-handed persons) or "My left arm is heavy" (for left-handed persons). This formula follows several principles, which are applicable to the other standard formulas also: kept as simple as possible; content aimed directly at the functional result wanted; verbal structure and content does not imply any active, goal-oriented effort, but should emphasize a passive and casual attitude ("My right arm is heavy," not "I want my right arm to be heavy"); does not include or imply any negations; and it is adaptable to the functional state of the subjects (if "My right arm is heavy" or "My right hand is slightly heavy").

It was discussed and emphasized to the subjects that a passive and casual attitude toward the occurence of any functional change should be constantly maintained. The subjects were told that the various systems functionally related to the formulas were automatically controlled and no conscious effort or concern should be made to influence one or another function or system which usually worked as such. The content and sequence of the formulas simply supported the natural tendency for self-regulation. All of these principles were set forth by Luthe (1969, 1970, 1973) in volumns of Autogenic Therapy.

The idea of "passive concentration" was thoroughly discussed with the subjects and it was contrasted with our normal mode of goaloriented "active concentration." Emphasis was made on maintaining a very casual attitude and a passive attitude with respect to the formulas. It was also explained that they may, or may not, perceive the effects

of the formulas.

Emphasis on establishing mental contact with the area of body referenced by the formula was made. The subjects were told that mentally visualizing that area or gently stroking it, just before, or during the exercises might help. Inadequate, paradoxical, or even lack of results have been noted by not establishing mental contact with the area of reference in the formula, and the subjects were told this.

The importance of maintaining a steady, film-like flow (verbal, acoustic, or visual) of the formulas was also emphasized. The subjects were told the verbal form of mental repetition usually works best. Whatever means of maintaining a flow of formulas the subjects used, they were asked to stick with that, and not change from one mode to another. In the beginning of the exercises a flow of from 30 - 60 seconds was strived for, but the subjects were informed it is normal for intruding thoughts to be disturbing for something so new to the brain. After initial training the passive concentration should not exceed one to two minutes. The subjects were asked to practice the autogenic exercises three times a day, and passively concentrate about three times each practice session, with a one minute break between each formula passive concentration. They were asked not to practice after eating a large meal nor when extremely hungry.

When the first standard exercise was introduced, a background formula was also introduced. This was "I am at peace" and the subjects were asked to imagine themselves in a beautiful meadow on

a sunny and pleasant day. Thus, while learning to control different functions of their bodies with the autogenic formulas, they were also practicing visual imagination. Each subject-agent pair was asked to imagine their partners sitting in this meadow and doing the autogenic exercises with them. It was thought that this might help in establishing a psychic rapport.

With the introduction of the first standard exercise the subjects were told how to terminate their exercises. After the periods of passive concentration they were told they should flex their arms vigorously, take some deep breaths, and open their eyes. It was also suggested to do something similar to "stretching" in the morning after a night's sleep.

After working with the first standard exercise and reporting results to the experimenter, the subjects were asked to add new modifications of the heaviness formula. This led to concentration on the other arm and eventually the legs. These modifications were given when the subjects reported feeling the effects of the formula. The subjects were asked to keep a simple chart of the exercises and subjective feelings associated with each one. It was mentioned that each time they practice they might experience the results as different from before. They were asked to report any unusual results to the experimenter. All records of the exercises were monitored by the experimenter for possible autogenic discharges (see Table 5) that might be detrimental to the subject.

New formulas were given to the subjects when the experimenter felt as profound results as possible had occurred within the time

Т	а	b	1	e	6

Training Phenomena and Autogenic Discharges

· · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Categories	Modalities
1. Motor	
a) Somatomotor	Twitching, jerking, trembling, involuntary
b) Reflexomotor	movements, muscular tension Coughing, laughing, twitching of eyelids, sneezing, crying, swallowing, yawning, sucking, vomiting
c) Visceromotor	Changes of respiration, heart action, gastro-intestinal motor activity, salivation perspiration, urogenital functions
2. Sensory	
a) Somatosensory	Heaviness, warmth, coolness, burning, tingling, numbness, pain, pressure, tension, lameness, disagreeable feelings (nonspecific
b) Viscerosensory	Pain and disagreeable sensations in throat, feelings of suffocation, pain or pressure in abdominal or chest areas, hunger, nausea,
c) Other	sleep, drowsiness
3. Vestibular	Dizzyness, turning, spinning, floating, sinking, flying, lopsidedness, displacement, falling, rocking, swinging
4. Auditory	Simple tones, noise, buzzing, music, voices
5. Olfactory	Agreeable, disagreeable sensations
6. Gustatory	Related to food, others (e.g., varnish, wood, sperm)
7. Visual	Uniform colors, cloud-like formations, shadows, simple forms, objects (static, dynamic), faces, filmstrips
8. Affective	Anxiety, fear, depression, euphoria, long- ing for love and affection, feeling of loneliness, insecurity
9. Ideational	Intruding throughts (difficulty of concen- tration), memories, planning

Adapted from Table 2 in "Modalities and Patterns of Autogenic Discharge Activity" (Luthe, Vol. V, p. 11).

-

allowed for the duration of the experiment. The subjects, after the heaviness formulas, were given "My right (left) arm is warm" and the associated modifications for warmth. They were asked to continue visualizing the meadow and their partners doing the exercises. Later they were given "Heartbeat calm and regular" and "It breathes me". It was suggested that with the formula "It breathes me" they might imagine their breathing similar to the ocean and waves flowing in, and then flowing out.

When the subjects had completed the practice of all four of these formulas and the modifications, they were ready for the next part of the experiment. This consisted of going through the imaginary dream to test for psi again. The difference between this and the first time was that now they went through the autogenic exercises prior to the start of the imaginary dream, and they also imagined their partners walking through the imaginary dream with them. The procedure for this was basically the same as for all the prior imaginary dream experiments, with the exception that now they were allowed ten minutes prior to the start of the imaginary dream tape to do the autogenic exercises. At the end of ten minutes the tape was started. All of the subjects had agreed that ten minutes was plenty of time to practice the exercises. The rest of this experiment conforms exactly to Experiment One, and the same questionnaires and protocol sheets were used.

Results

The overall experiment yielded evidence for psi hitting. There were seven hits and one miss, The scores were distributed such that before practicing the autogenic exercises there were four hits and one of these was a direct hit. After using the autogenic exercises there were three hits, two of which were direct hits, and one direct miss.

The before and after autogenics conditions did not differ significantly in terms of any of the questions concerning belief, mood, attitude, or state with the exception that when using the autogenic exercises the subjects reported that their awareness of bodily feeling and sensations was more altered than before. The means for all of the self-rated questions may be found in Table 7.

Because of the preliminary nature of this study and the small number of subjects used it was felt that the subjective value of the protocol sheets was most important. The following includes all of the target-protocol responses for this experiment. Subject A.S.

Protocol before autogenics: In the meadow was "A giant turtle with its head sticking in the air which at times could have turned into a spaceship." In the forest, "In the clearing was an old man sitting asleep against a tree with a hat covering his eyes and a corn pipe in his mouth, and something in his hand--a stick or hoe." On the mountain, "Jesus on it and a halo around his head. This turned into a cathedral and then became the Madonna." On the beach, "A man's watch with a blue face and a gold bracelet with two hearts."

Table 7

Summary of Questionnaire Responses for Experiment 3

	· · ·	MEAN		
Va:	riable	Combined	Before Autogenics	After Autogenics
1.	Belief in ESP	1.000	1.000	1.000
2.	ESP possible in this experiment	1.875	1.750	2.000
3.	Personal success in this experiment	2.875	3.250	2.500
4.	General mood today	2.375	2.500	2.250
5.	Mood to participate in this experiment	1.625	2.000	1.250
6.	Attitude toward experimenter	1.875	2.000	1.750
7.	Liking for the target picture	2.250	1.750	2.750
8.	Initial physical state	3.375	4.500	2.250
9.	Impression physical state	2.215	2.500	1.750
0.	Physical state shift	-1.160	-2.000	-0.500
1.	Initial mental state	3.375	4.000	2.750
2.	Impression mental state	3.125	3.750	2.500
3.	Mental state shift	-0.250	-0.250	-0.250
4.	Belief that state is conducive to psi	2.250	2.500	2.000
15.	State of consciousness (impression period)	5.500	4.750	6.250
6.	Body awareness (impression period)	8.125	7.250	9.000
7.	Self-rated personality (extravert/introvert)	4.125	4.250	4.000
		. 	• • · • · • • · • • • • •	

.

Target: A gold and walnut wall clock with assorted weather instruments. It was an early American design and was wider at the bottom than the top. Although the subject rated this target as a number three there are many correspondences. Possibly the shape could be seen as a spaceship which was mentioned in the meadow. The forest imagery seems to not be related to the target, and the mountain imagery appears to be strictly that which is often associated with meditation. The beach imagery corresponds directly with the target picture.

Protocol after autogenics: In the meadow was a "brown rock like a boulder." The forest imagery was "a brown walking cane with a crown." On top of the mountain was a "shaft of Indian feathers." When opening the chest on the beach A.S. thought "It's a baby." She also saw in the chest "a knife with an ornately carved handle, pink and blue."

Target: A manger scene of Mary and Jesus. The main colors were brown and gold. Animals and people were standing around the scene. The color A.S. picked up in the meadow corresponded to the colors of the target. The walking cane and crown that were visualized in the forest correspond directly to the target. This scene of the manger is nearly always associated with the three kings and shepherds with staffs. The mountain imagery does not seem to relate to the target. The beach scene again related directly to the picture. The target picture was of baby Jesus and A.S. saw a baby when she opened the chest. The knife with an ornately carved handle might be related to the gifts given at

his birth. A.S. ranked the target picture as a direct hit and was so certain of her choice that she underlined it four times. Subject C.S.

Protocol before autogenics: In the meadow C.S. saw a boat. In the forest she "saw a castle in the clearing, complete with round turrets." On the mountain she saw a "beautiful cathedral." On the beach she found an old, but large leather bound bible. Target: A picture of a toilet with a yellow and black seat. The only possible correspondence was the "round turrets" of the castle, which geometrically were similar to some parts of the target. C.S. ranked the target as number three.

Protocol after autogenics: In the meadow, "Beautifully carved podium." In the forest she saw a "cradle with baby in it." On top of the mountain she saw a "beautiful, radiant and huge star." In the chest she found some "purple velvet holding a string of pearls."

Target: A Christmas scene with Santa's sleigh and reindeer on top of a house. The forest scene of the cradle with the baby could have been symbolic of the target, and the mountain scene is nearly always related to Christmas. The beach scene does not seem to relate directly with the target. C.S. ranked the target a direct hit. Subject E.G.

Protocol before autogenics: "I saw a picture or painting in the meadow, a sailboat in the clearing of the forest, and a pyramid or triangle on top of the mountain." On the beach there was "a picture frame in the chest, but no picture. Jewels in the chest."

Target: Dali's "The Sacrament of the Last Supper" was the target picture and shows Jesus and his disciples at the table for the last supper. Behind them is a lake and mountain scene. The idea of a painting or picture frame that was picked up by E.G. is consistent with the tartet. The pyramid or triangle on top of the mountain could also be related to the picture. The subject later said that this was a religious symbol to her and was one of the main reasons she picked the target as a direct hit. Also there were lines in the target picture that were similar to a triangle.

Protocol after autogenics: In the meadow E.G. saw a hand come from the sky and clasp with a hand coming from the ground. In the forest was a Model T Ford and driver. On top of the mountain was "First a star; then a person cutting off the head of another person; then a large clipper sail boat." On the beach E.G. responded that it "looked like a doll in a blanket or knitting stuff."

Target: A cartoon drawing of hundreds of people standing on each other in the design of a pyramid. This is out in the desert and the leader of the pyramid construction crew is talking to the Egyptian king and saying, "Well, that's roughly what it'll look like!" None of the visual imagery seems to correspond directly with the target picture and E.G. reported, "I was cold in the room. I may have been trying too hard, too tired, etc." She ranked the target picture number three. It appears that the conditions were not as good for E.G. as they had been before. She still ranked

the target as a hit though.

Subject B.W.

Protocol before autogenics: In the meadow, "I saw a silly rabbit with stripped coat like a zebra." In the forest, "I saw, not something out of place, but a beautiful deer and her baby. Her projecting love was all around, peace." On the other mountain was a "star carved in it". B.W. found in the chest on the beach some "gold bars and sea shells".

Target: Albrecht Durer's "Praying Hands" was the target. This is a painting showing simply what the title says, and it is done in only black and white colors. The protocol sheet does not correspond in detail, but possibly the forest scene does symbolically correspond where B.W. says, "Her projecting love was all around, peace." B.W. ranked the target picture as number two.

Protocol after autogenics: In the meadow, "I saw an umbrella, red or clear plactic." In the forest, "I saw a shape of a little 'baby Astrodome', very small and off in the distance." On the mountain B.W. saw, "bright rays of light...and then a dome." The chest on the beach contained "candy kisses wrapped in red paper." Target: The target was an advertisement for watches and had seven watches. One watch was oriented as the center and the other six branched out from this one, similar to rays coming out from it. This was the only miss for this group and it was a direct miss. Both the protocol sheet for the subject and agent have been completely reproduced. Although topically there is no correspondence between the target and the subject's protocol sheets, there appears to be

. Se ce cosservaceus 65 the set of the second 118/74 11 8:10

化合物化合物 化物化物化合物 化合物化合物合物合物合物合物化合物化合物化合物化合物化合物化合物

Veryen, even Marino, whice harge & while brain uper windy, but possile the air I mais so clean. * I saw an unitiain, redor clear placed. very Quaceful, compleat sirring, bury cance forest Di par & a the coloris we huge of brown, much gran & some again, in the Clading & saw a share of a little baby astrodome", very small & fat a dicitize climitten, was fun, and happy, lasy. accouse the Mauntain it scander like blight have a light consinguinand a surplue of them a dome the black felt somice : warm & June walking bary wrapped in rud-paper. burthen reed color keep 4 5 1 6 3 D

 \mathcal{D} , the second se

4-18-74 8:30 Betty Rarkes alice Stacy 66

•

.

.

• • • .:

D

 $\sum_{i=1}^{n-1} |A_i|^2 = \sum_{i=1}^{n-1} |A_i|^2 = \sum_{i$ I projected the hard cold feeling of metal three feeling + touching the watches and the ticking of the watches ky patting my wrist to my ear. I called out the time 10:10 and uisvaliged the V. Unijected the pattern i's atmountan out + put on wrist.

1

д·

.

some similarity between what the agent was sending and what was received. The agent at one point concentrated on sending the pattern of the watches. The drawings of what the agent sent and what the subject received seem to be remarkably similar.

There seems to be a possible explanation for the target being ranked a direct miss by the subject. In the post-session interview B.W. said that she put the picture of the watches last because she did not like the aspect of time, expecially in such a beautiful imaginary setting. She also said she wanted the dream to last longer. The mean score on the question of whether the target was liked or not was six. This is far above the mean of the group for all targets which was two and one-fourth. This was also the highest score of dislike for a target of any of the targets in this experiment. This is all based on the one to ten scale with one being that the participant liked the picture "very much" and ten being "not at all."

Discussion

This experiment yielded results for psi hitting and adds further evidence that the imaginary dream is conducive to the receptive psi process. It is hard to be conclusive about the use of autogenic exercises in relation to psi. The number of direct hits increased after using autogenics. Some of the subjective values of the protocol and target correspondences seem to be better after autogenics, but we started with a group of subject-agent pairs who scored very well even before the practice of autogenic exercises. It can be stated that the autogenic exercises did not have a detrimental effect on the receptive psi process. Even though there was a miss after using the autogenic exercises, this can be explained by a dislike for the target picture.

The effect of the autogenic formulas was not profound with all of the subjects. The responsibility for this belongs mainly to the experimenter. The results of the autogenic exercises were monitored for autogenic discharges, but not enough time was spent helping some of the subjects establish mental contact with the area of body referenced by the formula. Some of the subjects were clearly not getting profound results with one formula, when, due to time, they were asked to advance to another formula. Most of the lack of results appears to have been caused by not establishing this formula-related mental rapport. Still, the subjects awareness of bodily feelings and sensations was significantly more altered after using the autogenics

than before.

This preliminary study into the use of autogenics in relation to the psi process indicates that more work in this area is needed Experimentation with autogenics in this respect could possibly lead to a training technique for psi. The results of such a technique would require the use of subjects who had not practiced meditation prior to the autogenic training. The group of subjects used in this study had all meditated for over a year prior to the experiment, and they appear to be good psi subjects. Additional autogenic formulas might be used with a naive group. These might include formulas suggesting that a psychic rapport was being established. After learning to control their bodily functions with autogenics it would possibly be easier to control the psi process through similar forms of suggestions. Since the autogenic exercises are essentially self-directed in nature and give an active role and responsibility to the subject, there are implications of using psi-inductive autogenics in many forms of therapy. The establishment of good rapport between therapist and patient is a key element of successful therapy. A relationship between psi and successful therapeutic sessions has already been established (Hudesman and Schmeidler, 1971). Possibly with the use of psiinductive autogenics a patient could increase his rapport with the therapist and take an active role in doing so. This would leave the therapist more time to work with other patients. The use of this form of autogenics might also be useful with a behavioral approach to maladaptive behaviors. Increased rapport between the

therapist and those involved in the behavior modification program might make the modification more rapid and profound. Thus, if a husband and wife team comprise the environment of the modification program, then increasing their rapport might be very beneficial.

That the psi process exists has clearly been established, as anyone familiar with the literature will attest, two directions are now needed for psi research. One would attempt to find explanations for the psi process. The other would try to find constructive uses for psi. The present state of development of psi finds it too unevolved, or effete as a result of social ostracism, to be used effectively for detailed research of such things as causes of medical problems. This state of affairs may change. Until that time we should make use of psi where possible and that includes the use of psi-conducive methods to increase rapport and aid in therapy. The imaginary dream has its origin in the therapeutic literature, and autogenics have always been used in therapy. The remarks of relaxation and feelings of joy that subjects made after using one or both of these indicate they have a definite place in certain forms of therapy. Throughout the clinical literature are spontaneous cases of psi that have occurred when the therapy was becoming successful. The time has come to investigate the use of psi-conducers as an aid to a more rapid and profound repertoire of therapeutic methods.

.

.

BIBLIOGRAPHY

!

BIBLIOGRAPHY

- Barron, F., & Mordkoff, A. M. An attempt to relate creativity to possible extrasensory empathy as measured by physiological arousal in identical twins. Journal of the American Society for Psychical Research, 62, 1968, 73-79.
- Benedek, T. The psychosomatic implications of the primary unit: Motherchild. American Journal of Orthopsychiatry, 19, 1949, 642-654.
- Braud, L. W., & Braud, W. G. Further studies of relaxation as a psiconducive state. Journal of the American Society for Psychical Research, 1974, in press.
- Braud, W. G., & Braud, L. W. Preliminary explorations of psi-conducive states: Progressive muscular relaxation. Journal of the American Society for Psychical Research, 67, 1973, 26-46.
- Burlingham, D. Twins, <u>A Study of Three Pairs of Identical Twins</u>. New York: International University Press, 1952.
- Dean, D. Extrasensory induction in twins. Research brief presented at the ninth annual convention of the Parapsychological Association, New York, 1966.
- Duane, T. D., & Behrendt, T. Extrasensory electroencephalographic induction between identical twins. Science, 150, 1965, 367.
- Ehrenwald, J. Mother-child Symbosis: Cradle of ESP. <u>Psychoanalytic</u> Review, 58, 1971, 455-466.
- Ehrenwald, J. Telepathy & the child-parent relationship. Journal of the American Society for Psychical Research, 48, 1954, 43-55.
- Gaddis, V., & Gaddis, M. Natural born telepathists? <u>Psychic</u>, July, 1972, 23-27.
- Gaddis, V., & Gaddis, M. The Curious World of Twins. New York: Warner, 1972.
- Gedda, L. <u>Twins in History & Science</u>. Springfield, Illinois: Charles Thomas, 1961.
- Green, E. F., Walters, E. D., Green, A. M., & Murphy, G. Feedback technique for deep relaxation. In Biofeedback & Self-Control. Chicago: Aldine, 1969.
- Happich, C. Das Bildbewüsstsein als Ansatzstelle Psychischen Behandlung. Zbl. Psychother., 5, 1932, 663-677.

- Happich, C. Bildbewüsstsein und Schopfertsche Situation, (Symbolic consciousness and the creative situation.), <u>Dtsch. med. Wschr.</u>, 1939, 2.
- Honorton, C. Significant factors in hypnotically-induced clairvoyant dreams. Journal of the American Society for Psychical Research, 66, 1972, 86-102.
- Honorton, C. Tracing ESP through altered states of consciousness. <u>Psychic</u>, October, 1970, 18-22.
- Honorton, C. "Tuning up for psi", American Society for Psychical Research Newsletter, 12, 1972, 2-3.
- Honorton, C., Davidson, R., Bindler, P. Feedback-augmented EEG alpha, shifts in subjective state, and ESP card-guessing performance. Journal of the American Society for Psychical Research, 65, 1971, 308-323.
- Honorton, C., & Harper, S. Psi-mediated imagery and ideation in an experimental procedure for regulating perceptual input. Journal of the American Society for Psychical Research, 68, 1974, 156-168.
- Honorton, C., & Krippner, S. Hypnosis and ESP: A review of the experimental literature. Journal of the American Society for Psychical Research, 63, 1969, 214-252.
- Honorton, C., & Stump, J. P. A preliminary study of hypnotically induced clairvoyant dreams. Journal of the American Society for Psychical Research, 63, 1969, 175-184.
- Hudesman, J., & Schmeidler, G. ESP scores following therapeutic sessions. Journal of the American Society for Psychical Research, 65, 1971, 215-222.
- Jacobson, E. <u>Progressive Relaxation</u>. Chicago: University of Chicago Press, 1929.
- Johnson, A., & Szurek, S. The genesis of antisocial acting out in children and adults. Psychoanalytic Quarterly, 21, 1952.
- Koch, H. C. Twins & Twin Relations. Chicago: University of Chicago Press, 1966.
- Kretschmer, W. Meditative techniques in psychotherapy. In C. T. Tart (Ed.), Altered States of Consciousness. New York: Wiley,1969, 219-228.
- Krippner, S. Experimentally-induced effects in hypnosis and non-hypnosis groups. Journal of the American Society for Psychical Research, 62, 1968, 387-398.

- Luthe, W. (Ed.) <u>Autogenic Therapy: Volume 1, Autogenic Methods</u>. New York: Grune & Stratton, 1969.
- Luthe, W. (Ed.) <u>Autogenic Therapy: Volume IV</u>, <u>Research and Theory</u>. New York: Grune & Stratton, 1970.
- Luthe, W. (Ed.) Autogenic Therapy: Volume V, Dynamics of Autogenic Neutralization. New York: Grune & Stratton, 1970.
- Luthe, W. (Ed.) <u>Autogenic Therapy: Volume VI, Treatment with Autogenic</u> Neutralization. New York: Grune & Stratton, 1973.
- Luthe, W. Autogenic Therapy: Excerpts on applications to cardiovascular disorders and hypercholesteremia. In <u>Biofeedback & Self-Control</u>, 1972, 437-462.
- Luthe, W. (Ed.) <u>Autogenic Training (International Edition</u>). New York: Grune & Stratton, 1965.
- Luthe, W. Autogenic Training: Methods, research and application in medicine. In Biofeedback & Self-Control. Chicago: Aldine, 1969.
- Luthe, W. Autogenic Training: Method, research & application in psychiatry. Journal of Diseases of the Nervous System, 23, 1962, 383-392.
- Luthe, W., & Geissmann, P. Autogenic state and autogenic shift: Psychophysiologic and neurophysiologic aspects. <u>Acta Psycho-</u> therapeutica et Psychosomatica, 11, 1963, 1-13.
- Masters, R., & Houston, S. Mind Games. New York: Dell, 1972.
- Meares, A. The atavistic theory of hypnosis in relation to yoga and the pseudo-trance states. <u>Proceedings of the 3rd World Congress</u> of Psychiatry. Montreal, 1961, 712-714.
- Mittler, P. The Study of Twins. Baltimore, Penquin, 1971.
- Nash, C. B., & Buzby, D. E. Extrasensory perception of identical and fraternal twins; Comparison of clairvoyance test scores. <u>Journal</u> of Heredity, 56, 1965, 52-54.
- Newman, H. H. About twins. <u>The New York Times Magazine</u>, November 14, 1948, 24-25.
- Newman, H. H. Telepathy between twins. Journal of the American Society for Psychical Research, 49, 1949, 108-111.
- Newman, H. H., Freeman, F. N., & Holzinger, K. J. <u>Twins: A Study of</u> <u>Heredity and Environment</u>. Chicago: University of Chicago Press, 1937.

- Osborne, R., & De George, F. <u>Genetic Basis of Morphological Variation</u>. Cambridge: Harvard University Press, 1959.
- Parker, A., & Beloff, J. Hypnotically-induced clairvoyant dreams: A partial replication and attempted confirmation. Journal of the American Society for Psychical Research, 64, 1970, 432-442.
- Rhine, J. B. The bearing of parapsychology on human potentiality. Journal of Parapsychology, 30, 1966, 243-258.
- Rhine, L. E. Psychological processes in ESP experiences. I. Waking experiences. Journal of Parapsychology, 26, 1962, 88-111. (a)
- Rhine, L. E. Psychological processes in ESP experiences. II. Dreams. Journal of Parapsychology, 26, 1962, 172-199. (b)
- Rogers, W. C. A study of like pattern formation in twins. <u>Journal</u> of Parapsychology, 24, 1960, 69. (Abstract)
- Sargent, J. D., Green, E. E., & Walters, E. D. Preliminary report on the use of autogenic feedback training in the treatment of migraine and tension headaches. Report released from The Menninger Foundation, 1972.
- Schmeidler, G. High ESP scores after a swami's brief instruction in meditation and breathing. Journal of the American Society for Psychical Research, 64, 1970, 100-103.
- Schmidt, H. The psi quotient (PQ): An efficiency measure for psi tests. Journal of Parapsychology, 34, 1970, 210-214.
- Schultz, J. H., & Luthe, W. Autogenic training. <u>Proceedings of the</u> <u>Third International Congress of Psychiatry</u>, Volume I. Montreal, 1961.
- Shields, J. <u>Monozygotic Twins Brought Up Apart and Brought Up Together</u>. London: Oxford University Press, 1962.
- Shields, J., & Gotterman, I. <u>Man, Mind, & Heredity</u>. Baltimore: The John Hopkins Press, 1971.
- Shwarz, B. E. Family telepathy. Psychic, April, 1972, 16-19.
- Sperling, M. The neurotic child and his mother. A psychoanalytic study. American Journal of Orthopsychiatry, 21, 1954, 351-364.
- Stanford, R. G., & Mayer, B. Relaxation as a psi-conducive state: A
 replication and exploration of parameters. Journal of the American
 Society for Psychical Research, 68, 1974, 182-191.

- Tart, C. T. Psychedelic experiences associated with a novel hypnotic procedure, mutual hypnosis. <u>Altered States of Consciousness</u>. New York: Wiley, 1969, 291-308.
- Ullman, M. Dreams & Telepathy. Symposium at the Ninth Annual Convention of the Parapsychological Association, New York, 1966.
- Ullman, M. The experimentally-induced telepathic dream: Theoretical implications. Journal of the American Society for Psychical Research, 64, 1970, 358-374.
- Ullman, M., Krippner, S., & Honorton, C. A review of the Maimonides dream ESP experiments 1964-1969. <u>Psychophysiology</u>, 7, 1970, 352-354. (abstract)
- Ullman, M., Krippner, S., & Vaughan, A. Dream Telepathy. New York: MacMillan, 1973.
- Walter, W. G. The Living Brain. New York: W. W. Norton & Co., Inc., 1953.
- Wilde, G. Inheritance of Personality Traits. <u>Acts Psychological</u>, 22, 1964, 37-51.
- Wilson, I., & Reece, J. Simultaneous death in schizophrenic twins. Archives of General Psychiatry, October, 1964, 377-384.
- Zorab, G. Modern genetics and psi phenomena. <u>Parapsychology Review</u>, 4, 1973, 1-3.

_____. Report of the Research Committee for 1958. Journal of the American Society for Psychical Research, 53, 1959, 69-71.

APPENDIX 1

TRANSCRIPT OF TAPED RELAXATION

AND VISUAL IMAGERY PROCEDURE

. 77 • ;

Appendix 1

Transcript of Taped Relaxation and Visual Imagery Procedure

Make yourselves very comfortable now, relaxing just as fully as you can, and now listen closely and discover you can relax even more.

Relax your body a bit at a time, beginning with the toes. Tighten up your toes. Hold the tension in very tightly. Now, let them go limp and relax. Then the rest of the foot and ankle...tighten up the whole foot and the ankle. Hold the tension...now relax it. Your ankle, your foot, and your toes are very relaxed. That relaxation is moving slowly up your body and it's going to the calves. Tighten up your calves... hold the tension in...they're very tight...very tight. Now, let your calves go limp...very relaxed. Now the relaxation is spreading up into your knees. You feel much tension at your knees...the tension remains for a second...now relax them...very relaxed. Now your thighs, tighten up your thighs. Tighten up the muscles in your thighs. They're very tight...hold the tension in...now relax it. Now your legs are both very, very relaxed and very comfortable. This relaxation and limpness is going to spread and you are going to become very deeply relaxed, your whole body.

Now on up into the pelvic area. Tighten up the pelvic area. Hold the tension in. It is very, very tense...now release it. It becomes very, very relaxed and it is relaxing more and more. And now the solar plexes...tighten it up...very, very tight...tighter...hold the tension in...hold that tension...now, relax. Ah, you are very, very relaxed. Very comfortable. Now the chest...hold the tension in your chest...hold it there...it is so tense you cannot breathe...it is just being held in your chest...O.K., relax it. Ah, it is very, very relaxed now. Very relaxed. It is relaxing more and more. Now, the fingers...tighten up your fingers...they're very tight. Now, relax them. Let them go limp and relaxed. Now do the same to the wrists and the forearms. Hold them both very tight...very tight. The tension is very strong there...very strong. Now, relax them. Your forearms, your wrists, your hands, and your fingers on both arms, are totally relaxed...very, very totally relaxed. And this is spreading to the upper arms. Tense up the upper arms...double them up...tense them up...hold the tension in...hold it very tight, very tight...and now relax it. And now the shoulders, tighten them up...hold the tension in. Now let them go limp. Let them hang on your frame, on your body. Let them be very relaxed, very relaxed. You feel no tension in them whatsoever. Feel the relaxation. All the strain or tension is just slipping out and away from your whole body. Now, through progression, your whole body is becoming very, very, very relaxed.

79

Now the neck...tighten up the neck...hold tension in it...strain the neck...now relax it. Let it go loose and limp now, and very,very relaxed. And now the jaw, the lips, and the cheeks are very tight. Bite your teeth together...hold them very hard...so much tension there... and let them go very relaxed...very, very limp and very relaxed. And now your forehead and around your eyes...tighten up the muscles around your forehead and around your eyes. Tighten them up...hold the tension there, as if it were a very strong, very bad headache...hold the tension. Now, relax it, relax it. And all tension has slipped away from your head and it feels very, very relaxed. And your whole body, the entirity of your body is relaxed now. And it is relaxing even more and more so that you are just as limp and relaxed as an old rag doll might appear to be. And you really are that relaxed as you listen now to what I have to say to you. And you will want to listen extremely closely; very, very closely please, as you are listening just to me, becoming aware just of what is said to you, and of your responses to what is being said to you.

And for a little while now, with eyes closed, remaining relaxed, breathing slowly and deeply, focus your awareness on that breathing, as you breathe in now, and then breathing out...in and out, in and out, in and out. Continue breathing very deeply. Continue to focus your awareness on your breathing...breathing in and out, in and out, in and out.

Continue breathing now, breathing very deeply. Let your eyes remain closed and be deeply relaxed, and there is something of importance and value to you that I have to say to you now.

So concentrate just upon what I will say to you, very fully concentrate on my words, and upon what you will experience when the words are spoken. Remember, and accept without doubt that it is true, and recollect now very realistically a dream you used to have as a child. You may have forgotten it, but now you remember, and you will recall it most vividly now as I remind you of the details of that dream you used to have, of that dream you are going to have again.

At night, when you slept as a small child, the same dream, recurring again and again, so that you were not sure that it was a dream, although it was not your usual waking reality either.

And beginning always in the same way, as in the dream, you would get out of your bed, walking across the room to the closet, and finding that there is a door in the back of the closet. A door you could never find when you looked for it when you were awake, although often you did look for that door. But now the door opens for you in your dream, and you pass through the door, and you are standing in a green grassy meadow.

And you hear the birds and the scent of spring is in the air. The sun is very pleasant and the temperature is also very pleasant. It is not too hot and it is not too cool. You look about you. Now you walk out into the meadow and there are trees on either side of you. You feel the grass under your feet and you feel the sun shining very brightly on you. Now you start to walk very casually through the field. You're enjoying the walk very much and you feel very comfortable.

You look out across the field and you see something very unusual. Something you would not expect to see sitting out in the field. You gaze at it, curious, wondering why it's sitting there, but you feel no anxiety about it and you still feel very comfortable. You become very aware that it is there, but you continue walking through the grass, through the meadow. You make a mental note of this unusual sight, knowing you will not forget it after you leave the meadow. It doesn't make you uneasy, just curious. You continue walking through the meadow.

You see a flower, you bend down and you pick it. Then you smell the flower in your hand and continue to walk. You note all this time that unusual sight that you saw, but it doesn't bother you. You walk on through the meadow, listening to the birds, feeling very, very pleasant and very much at peace with nature. Continue walking through the meadow

at a very casual pace now.

Further in the distance you see a forest and you decide to approach the forest and leave the meadow and the birds of the meadow behind you. It is a short walk to the forest, especially since you feel very weightless and you kind of slide through the grass feeling very comfortable. You're approaching the forest now.

You're in the forest now. The trees are very tall. You can see the sun shining through the trees and you see leaves and underbrush cluttered under the trees. Though the sun is not shining on you directly, the temperature feels very comfortable to you. You've found a path leading through the forest and you begin to follow it.

You're walking through the forest now and you hear the birds of the forest and become very aware of them. They sound different from the ones of the meadow for they are very high in the trees and some are very deep in the forest.

You see a stream flowing and the path you are walking down follows it for awhile. It is crystal clear water and it looks very good to drink. Now the path is leading you to a clearing in the forest. It is not a very large clearing, but a well-lit one, with the sun shining directly into it.

You look in the clearing and you see something unusual again. You don't expect to find this in the forest. It is very strange to be there. Yet, you have no anxiety about it, just curiosity and you make a mental note of what you see. You still think it rather strange to be here amongst nature, but it still doesn't bother you. You walk on through the forest, through the clearing, and the trail takes up again. You feel very safe in the forest. It is a very pleasant journey and the temperature is very comfortable. Your walking is still very effortless. Your feet just sort of glide through the grass, down the path, and you kind of flow through beds of pine needles. You weigh little or nothing it seems. You're nearly weightless. It is a good feeling. And you continue to walk through the forest.

You seem to be climbing a bit now and the trail seems to be getting steep. It is a gentle climb at first, just a gentle slope, but it seems to be gradually increasing. But, you find no effort in climbing. You discover though that you are leaving the forest and you are starting to climb up a mountain. You may have never climbed a mountain before, but you find it very easy. The trees are being left behind you as you're climbing above the timber line.

You seem to be making very good time and it is very easy to climb. You never knew that climbing a mountain could be so easy, but you feel so weightless and so comfortable and you are thoroughly enjoying it. You are approaching the top of the mountain now.

And, you know, for being on top of a mountain the temperature is very comfortable and you don't feel cold. You just feel very comfortable and very pleasant. You are nearly to the top now. Ah, now you're on top of the mountain and it was very easy to get up here. Now you have a very splendid view, as you can stand on top of the mountain and look out in the distance.

And look out across in the distance, you see another mountain and it looks very much like a plateau. And there, on top of that plateau, or on top of that mountain is a very strange sight. Another unusual

sight. And though it is in the distance and it might seem a bit hazy, you try to focus your eyes and bring it into view more clearly and try to distinguish what it is, what this strange and unusual sight is. You wouldn't expect to find it up on top of a mountain somewhere. This is certainly an interesting journey you're taking and a very enjoyable one. You feel very pleasant about it. You're not used to seeing so many strange sights out in nature. You've just about got this strange thing on top of the mountain in perfect focus now, and you wonder why it is out there but it doesn't bother you. You've enjoyed the climb up the mountain and you've enjoyed the view.

Now you start to descend down the other side of the mountain and on the other side of the mountain, as you're descending, you see there is an ocean. You can see that the mountain is going to taper down very gently and you will have no problem getting down and getting to the ocean. And you continue descending down the mountain.

You continue climbing down the mountain. You're about to reach the bottom of the mountain now and you see the beach. You're just about down. You can see that the beach is very clean. And now, you're just about there.

Ah, now you're on the beach. You feel the sand under your feet and it feels very good. It feels very clean. Clean, white sand. And now you start walking down the beach. You're very carefree, very content, and very comfortable. And now you start walking down the beach and out toward the waves, the ocean. You're getting out closer to the water. You continue walking down the beach. You feel very good. You feel very, very pleasant. Out in the distance you see something and you start

approaching it with the curiosity that is naturally yours. You can see now it is some type of a chest and it is partially submerged in the sand. You continue walking towards it.

You're nearly to the chest now. Ah, you've reached it. You decide to pull it out of the surf and up on the sand, so that the waves will not be crashing around it. And though the chest is rather large, you find it very easy to do this. With little or no effort you pull it out of the sand and out of the surf and start dragging it up further on the sand, away from the waves.

And now you see that the chest doesn't have a lock on it and you decide to open it up and see what you will find inside of the chest. You open it up. Look what you've found inside a chest on a desolate beach. You take it out and note the details of it. Note very explicitly just what you've found. If it doesn't seem unusual to find a chest on the beach, it certainly seems unusual to find this inside of a chest. But, you like finding it here and you decide it is time to end your dream and that you must put it back into the chest, that which you have found, and close the chest back up so that others who follow you may also find it in the chest and be surprized. And you do this.

Then you walk away from the chest and continue down the beach just a little ways. Then you lay down upon the sand, the very, very clean sand. And you close your eyes and decide to wake up from your dream now.

And you're no longer on the beach, but you're back safe and comfortable, having enjoyed a very nice dream and a very pleasant experience. You're back exactly where it was that you started the dream. Now you kind of move your muscles. Stretching a little bit, just like when you wake up in the mornings. Stretching a little bit here, a little bit there,

and now, open your eyes, and you're fully awake again and back.

-

\$

.

.

.

.

APPENDIX 2

ROLES FOR ESP EXPERIMENT

.

Appendix 2

ROLES FOR ESP EXPERIMENT

Two roles will be taken, that of trying to mentally project or send a target picture (agent or sender) and that of trying to receive images or themes of the target picture (subject or receiver). These roles will be reversed and each person will act as both agent and subject. AGENT:

As agent you will listen to a tape recording that will guide you through progressive relaxation (tighten a part of your body and then relax it until you have progressed through the entirety of your body; to get your physical body relaxed) and visual imagery. The visual imagery will consist of your being asked to imagine being in a meadow, forest, mountain, and beach. You will be guided through these places by suggestion and environmental sounds will be included to help stimulate the state. Within each of these places it will be suggested to see something unusual or something you would not ordinarily see in these places. At that point imagine very vividly that the target picture (which will be randomly selected and projected in your room) is the unusual object. Concentrate on this target being the unusual object and hold in your mind that you are trying to communicate it to the other person. You will only see ONE target picture and this same target picture is to be projected in four (4) different places and four (4) different times (meadow, forest, mountain, and within a chest on the beach).

Example: Suppose the target picture is a skyscraper (There are no such targets in the pool and this is only used for illustration). As you are

imagining walking through the meadow it will be suggested to see something unusual and at this point imagine seeing a skyscraper sitting in your meadow and try to project this sight to the other person. Put this same skyscraper in the meadow, forest, mountain, and in the chest you imagine on the beach. In the chest you will have to imagine the skyscraper reduced in size and maybe as a plastic model. Use your imagination to fit the target picture into different places. As agent, after the tape is over fill out the questionnaire and tell how you projected the target (i.e., you saw a plastic model of it or you saw a billboard with the target picture on it, etc...) When you have finished the questionnaires come out of the room.

SUBJECT:

As subject you will listen to the same tape as the agent and at the very same time. Thus, when it is suggested to see something unusual the agent will be concentrating on the target picture. Since you will not know what the target picture is just see what comes into your visual imagination. Pay particular attention to what you see at first, and try not to associate too much (i.e., try not to build something that you are familiar with from the initial images). When the tape is over write down what images you saw when the tape suggested to see something unusual (in the meadow, forest, mountain, and in the chest on the beach). Also, write down any feelings you seemed to be receiving, such as a theme coming through. Within your room, then find a packet of six pictures and open them up. <u>One</u> of these pictures is the same as the agent was sending and is the target picture. Thus, the agent had knowledge of only one picture

and sent this in all four places (the same picture being sent in the meadow, forest, mountain, and beach). Rank the pictures according to the one you thought most likely being sent by the agent, to the least likely. Answer the other questionnaires and then come out of the room.