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NON-VERBAL, NON-PROXIMIC GROUP AND INDIVIDUAL COMMUNICATION EFFECTS

by

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A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Abstract

NON-VERBAL, NON-PROXIMIC GROUP AND INDIVIDUAL COMMUNICATION EFFECTS

by

Andrew Condey

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A study was conducted in the San-Francisco-Berkeley area between March and May of 1975 to test the relative strengths of telepathic communication between individuals and groups and between groups of familiar and unfamiliar persons. One hundred seventy two unpaid adult volunteers participated as subjects in this study of the efficacy of group sending of positive feelings. Three conditions were employed: condition I consisted of groups of six friends, condition II groups were composed of six strangers, and groups in condition III were made up of three friends. In each case, following a 40-minute relaxation-psi induction period, two percipients at a time would leave the group and go to separate, sensorily-isolated rooms. The remaining member(s) were instructed to send "positive, loving feelings" to one or the other or neither of the percipients on each of a randomized series of three practice (feedback) and seven scored 35-second trials. These feelings would be focused on a specific body part for the entire series of trials. Percipients marked down for each trial whether or not they felt the group (or individual) was communicating with them, and how

sure they were of this. At the conclusion of their set of trials, they also recorded which body part they felt impressions coming to, and an assurance score for that. Then they returned to the group and the next two subjects would leave, till all group members had had a chance to receive impressions.

Questionnaire data revealed that the three conditions did not differ in terms of belief, mood, or amount of prior psi practice. They did indicate that self-reports of experienced closeness reflected the conditions to which subjects had been assigned. As expected, positive feeling communication in condition I tended to be superior to scoring in either of the other conditions (both of which were near chance levels). These differences, though, narrowly failed to achieve significance. The condition I vs. chance comparison was barely significant at the .05 level. In a further analysis, however, when the friendly groups were defined more stringently, contrasts of large friendly groups vs. large stranger groups and chance scoring both proved significant ($p < .02$), while the contrast with the friendly individual condition (condition III) remained a nonsignificant trend ($p < .11$).

Contrary to expectations, scoring did not correlate significantly with self-ratings on a group closeness scale (possibly due to inadequacies in the scale). It was strongly related to experimenter mood and energy state, though, especially in the larger groups. Significant differences failed

to appear between timed-discrete trial scoring and body part-gestalt scoring, between assurance or majority vote and regular scoring, between preferred and non-preferred target scoring, or between left and right nostril breathers. There was minimal support for an intrasubject decline effect, with the opposite tendency observed to hold for the inter-subject scoring pattern.

Consideration of the results indicates that variations of the procedure employed may be useful as a paradigm for the continued study of group psychic processes in natural settings. A comprehensive extension of this study would seem to require the involvement of groups of friends normally engaged in a closely interdependent activity, where inter-personal barriers would be at a minimum. Care must be paid also to the interactive effects between groups and experi-menter variables--the experimenter in some sense may be an integral part of the groups he or she is working with, no matter what precautions are taken in an attempt to avoid this.

Preface

"If the doors of perception were cleansed every thing would
appear to man as it is, infinite.
For man has closed himself up, till he sees all things
thru' narrow chinks of his cavern."

--William Blake--
(The Marriage of Heaven and Hell)

Acknowledgements

Now that this research effort is completed, I would like to offer my thanks to a number of persons who have made special contributions to this effort.

First let me thank all the participants in the study for sharing their time, energy, and suggestions in our mutual effort to get closer to an understanding of phenomena which baffle us at the current time. Similarly, let me thank my four friends who served so well as experimenters--Jean, Marcia, Jeff, and Bert. Their flexibility in helping me out on very short notice was much appreciated.

The assistance offered by Gertrude Schmeidler, both intellectually and personally, warrants special note. Her encouragement, interest, suggestions, moral support, and sympathetic understanding have gone way beyond her responsibilities as my adviser. I have especially appreciated her prompt feedback at all points during the course of this project.

Thanks are also due the other members of my committee for their openness in considering the merits of a research area not yet widely accepted in academia.

My biannual trips to New York would have been much less pleasant without the friendship and dissertation comraderie offered by Maury and Ezzie. They've helped me to keep a buoyant perspective on life through many tedious hard-working weeks.

The successful completion of this undertaking has been

aided both directly and indirectly by the love and support my parents have shared with me over the years. I thank them for helping me to become the person I am now, for instilling in me a sense of self confidence, a sense of humor, and an ability to be sensitive to others; these traits especially I've come to value. Schnoopee!

Finally, this record could not possibly be complete without acknowledging the very special love and friendship Marcia has shared with me. She has been the ray of sunshine during those darkest, dreary hours and weeks when I was ready to quit and felt out of touch with my own humanness. Whenever I've needed it most, she's been there to help me to laugh and to dance again. I hope I can do the same for her.

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INTRODUCTION AND BACKGROUND

Personal Prologue

I feel the necessity at the outset of this endeavor to trace those strands of my own personal interests which have led me to research this topic. My efforts from the beginning have been an interweaving of objective analysis with subjective experience; the one without the other would constitute an incomplete record. That is, I don't feel a true understanding of my investigation could be grasped without some appreciation of the experiential elements entering into it. All too often I have read accounts of experiments without a clue as to their genesis, so I determined not to do my readers the same disservice. This requirement has made my task all the more difficult, leading to delays of setting pen to paper while I followed the latest thread of relevant evidence.

I could get carried away and link this research to my experiences at birth or before, for I believe such links may be there, but I shall content myself at this point with a more abbreviated history, dating from my first conscious experience with a profoundly altered state of consciousness. It occurred on the eve of my return to graduate school for my final year of course studies, and was brought about by a happy combination of the right drug, friend and location (Mount Tamalpais, California). I became explicitly aware,

as never before, of the vibrational communication constantly taking place between everything on this planet, of the true nature of an "open system." At once I understood the meaning of mystical and religious writers when they described the "oneness of us all." Somehow I saw how all things or persons could be different and yet the same, how matter and energy are different aspects of the same reality. These perceptions did not stay long with me, but they left a forceful enough impression to assure my continued interest in their exploration.

The first track I took was to read other accounts of "transcendent" experiences. I was both relieved and surprised at the mass of literature dealing with this phenomenon; relieved because it demonstrated to me that I wasn't "crazy," that reputable persons like William James (1902), Aldous Huxley (1963), and Alan Watts (1962), had passed through the "doors of perception" many years before I had; surprised because this material had been virtually ignored in standard psychological references on emotion or perception. The more I read, the more I realized that what I'd been through wasn't an isolated aberrant occurrence, that it truly was a glimpse of this world without any preconceived cognitive screens between me and it. Maybe there really was energy flowing between myself and others, maybe it was more correct to view my body and another as entwined rather than as separate individual systems. The levels of understanding and communication beyond verbalization were astounding.

My other, concurrent, avenue of investigation was into biofeedback. As I learned the extent to which we can control brain waves and autonomic functions previously considered involuntary (Condey, 1971), I realized that whatever a chemical could do inside my head, I could gain mastery over within myself. After all, it's already been demonstrated that rats can learn to control functions as specific as the blood flow in a single ear and that monkeys can achieve control over the firing of individual brain neurons (Fetz, 1969). Therefore it seemed most likely to me that Eastern accounts of training persons to tune in to their internal states and to alternative aspects of consensual reality had some validity to them. I especially sensed a connection between descriptions of the trainable alpha brain wave state and the receptiveness I'd experienced during my mountain encounter. In short, I became convinced that I (or anyone else) could become aware of subtle, generally ignored energetic forces about us without relying on the use of drugs or other extraneous agents.

There is, however, a wide gap between belief and experience and it was some months before I actually did feel that same type of communication taking place in a more natural (drugless) fashion. I came into contact with a group of individuals interested in developing their abilities to enter into altered states of consciousness. One person there, the man who had organized the meeting, possessed such a wealth of

personal energy that he infused it into others, including myself. I actually felt something akin to electricity passing between us. Not only did that intensity of communication last for the two days I was in his presence, but I was able to carry it with me for several weeks afterward and pass it on to persons I in turn came into contact with. It was clear to me that I was at both the receiving and transmitting end of a different level of non-verbal communication than I'd been generally aware of previously. And without the aid on that occasion of any nonhuman agents!

It was this awareness which I carried into my independent research on intimacy within intentional communities (Condey, 1973). Much as I concentrated on factors like commitment, territoriality, and size in that study, my attention was drawn to the general feeling or "vibration" of the group. It got to the point where I could walk into a house and even before meeting anyone, know whether the group was "together" or not, whether they were succeeding as a cohesive unit. Of course there were many sensory cues to influence me, but I felt the group energy was conveyed to me by some other means. Generally, the impressions of group tone or mood I received in this direct, seemingly non-sensory manner proved correct. The way I "explained" it at the time was that cohesive groups were chiefly differentiated from less unified ones by the extent to which individual ego boundaries had been transcended and the members felt them-

selves as part of a larger unity. As this happened, group energy created an existence of its own, and it was this which I sensed. Many of the communes which I felt to be most cohesive had an explicit philosophy supporting such a concept of subordinated individual personalities. In others it was more covert, yet still in operation. The conclusion I reached was that some "spiritual" level of communicating was the primary factor in determining the degree of intimacy existent within an intentional community.

It was at this point that I became interested in testing on a more scientific basis the conclusions I'd been led to. First and foremost, could a group communicate its mood state to an individual without verbalization or any other "normal" sensory cues? I outlined a research design to test this hypothesis and only then realized that I was dealing with phenomena that had been classified as "psychic;" my interest and analysis had been from the direction of nonverbal group communication and my early background investigation was totally oblivious to the large body of scientific research accumulated over the past forty years in the area of psychic communication. Happily, though (considering my naïveté in the field), my own study has proven to be an extension of research into the psychic realms also. When I discovered that there has been virtually no experimental research in the parapsychological literature dealing with group communication of moods either, I realized that my

paradigm could be simplified, that it would be a significant contribution if I could just demonstrate that any one mood could be transmitted in the manner described. For this reason, the final design centers around having groups attempting to communicate positive feelings to absent members. (If the phenomenon is indeed a real one, I don't want to be responsible for directing the output of anything but harmonious, positive messages.) I see this study, then, standing as a bridge between traditional realms of psychological inquiry and ancient esoteric ones newly rediscovered in the West. Later in this chapter I will offer a review of those research strands I feel are bound together here.

In refining my experimental design, I have endeavored to personally experience as strongly as possible the effect being explored and those variables most closely related to it. As I mentioned previously, this project has been a spiral intertwining of subjective and objective stances, the one feeding the other and then being fed by it in turn. And this is most fitting, as one hypothesis of mine involves the interplay between different modes of consciousness, the objective and subjective, right and left, electric and magnetic. I have partaken in several "psychic development" courses and have learned from them a series of instructions which have been successful in opening myself up to this mode of communication. Following practice with these methods, I have experienced paranormal abilities of such overwhelming

proportions that I could no longer deny their existence to myself. Now my task is to convince a wider scientific community, and to answer a challenge voiced by Gardner Murphy (1971): "It's certainly clear today that the gross ESP phenomenon does not ordinarily appear just by providing large quanitites of the obvious variables--motivation, emotion, relaxation, dissociation, and the rest. Challenge me if you like. Set up an experiment tomorrow using these things and get a clear-cut positive result!" My study will be employing primarily those very variables he mentions, as I endeavor to create a situation which is most conducive for displaying this non-verbal, non-proximic mode of communication. Recognizing, as Murphy does (1970), that there is a "complex chain of interdependent relationships . . . which ties a paranormal result to the psychological conditions which predispose to it," I will attempt to hold most of those variables constant in their most beneficial states (as determined by both past research and my own experience). Therefore, in addition to examining the major variables which will vary in my study (group and familiarity effects), I hope to demonstrate overall results which are convincingly as well as statistically greater than chance.

Related Research

Over the years, much research has been conducted in the area of telepathic communication. Early investigations raised a number of criticisms which have been effectively

answered by a more stringent methodology developed over the past thirty to forty years. Critics once focused on questioning whether sensory cues had been adequately controlled for, on whether the results could be explained by recording errors, and on whether proper randomization and statistical procedures had been followed. Most recent work has been careful to guard against these possible shortcomings.

One criticism which remains is the possibility of experimenter fraud. This criticism, though, might be made of any area of research. As in other branches of science, the only sure way to check against its occurring is to demand replication of findings by independent researchers. This has been done by those engaged in parapsychological research. Professional journals and societies concerned with parapsychology have grown and now promulgate and maintain standards on a par with those practiced in more accepted fields. The research replication rate in parapsychology has generally been underestimated (Honorton, 1975),and I have endeavored to apply to this study those lines of research which have been relatively consistent in the past.

The very word "telepathy" is derived from the Greek words for distance (tele) and feeling (pathos), yet past researchers have concerned themselves only with investigating the former, while largely ignoring the latter aspect. They have been preoccupied with proving the existence of "paranormal" phenomena under rigidly controlled conditions.

Unfortunately, these very conditions may have mitigated against the phenomena achieving full strength. Though the effects of motivation have often been written of (e.g., Murphy, 1964; Krippner & Murphy, 1973) only a handful of studies have attempted to test for the presence of this mode of communication in situations which would call forth committed involvement on the part of subjects. The traditional paradigm has been to have participants communicate symbols from the standard Rhine deck of cards to one another. This deck consists of 25 cards in all, often with 5 cards each of 5 different symbols: plus sign, circle, waves, star, and square. To sit down and try to discern the message on just one run through these cards might maintain a reasonable level of interest, but the 10, 20 and more runs typical of many experiments would surely dampen the enthusiasm of even the most avid subject. As Ornstein points out (1972), "it might be quite difficult to observe such communication in a 'neutral' laboratory, employing information of little import to the receiver. The obtained results may be only of statistical significance." Yet even the more recent experimental models, such as the ones involving dream state transmissions at Maimonides Hospital (under the direction of Krippner and Ullman), fall somewhat short of the emotional motivation present in real life occurrences of "extra sensory" precep-

tion.

The research which has been the most explicit in attempting to create emotional states akin to those present in spontaneous cases was carried out by Thelma Moss and her associates. In their first study (Moss & Gengerelli, 1968) they showed colored slides grouped into pairs according to contrasting emotional tone to persons acting as "transmitters," with appropriate sounds playing in the background. Individual "receivers" were asked to choose which slide of the pair the sender had been viewing. Significant extra-chance results were obtained for participants who believed in their own ESP abilities, however no significant difference was found between teams which had known each other long and those which had just met. A later study (Moss, Chang, & Levitt, 1970) also made use of a series of slides depicting emotional episodes, with a group of twenty-two persons transmitting over long distances to groups of receivers. In this case, scoring was also beyond chance expectation. Despite the positive results, it seems that subjects were primarily passive observers of emotional states rather than participants in them. This could explain the lack of scoring differentiation between known persons and strangers; the communications were as much informational as emotional and probably bore little relevance to any close relationships among the pairs.

The qualitative impressions garnered by René Warcollier

(1948) in his forty years of experimentation in France also seem à propos to the present investigation. He viewed telepathy as involving the identification of one person with another, and rejected the word "transmission" because it doesn't imply the two-way interactive aspects of the process. Increased dynamic involvement by the sender and receiver was seen to be a precursor to success in achieving this type of communication. The author and Gardner Murphy, in the introduction, both felt that telepathy is a primitive process, more apt to come to the fore among persons "less sharply divided from one another," a viewpoint consonant with my conceptions. However, Warcollier concluded that "our experiments tend to show that telepathy is facilitated when the agent and the percipient scarcely know each other," since persons who spend much time together unconsciously share many thoughts which serve to increase the noise present in any telepathic communication. How to explain this apparent paradox? Again, it might be largely a function of the type of task his subjects were involved in: they were asked to send pictures, which bore no direct relation to any existent interpersonal connections. If, instead, the messages had dealt directly with their emotional rapport, perhaps the results would have been more impressive.

In the groups which I observed, psychic communication appeared to be strongest where the interpersonal bonds were strongest. This pattern, according to the literature (e.g.,

Schmeidler, 1967), appears to be largely true of spontaneous cases in general and I plan to emulate it in the present study, in order to get results beyond mere statistical conviction. One class of subjects will be persons who already know each other, with interpersonal connections firmly established, while the rest will be given an opportunity to create somewhat more limited bonds. A study by Schmeidler (1966) demonstrated that persons matched as congenial pairs on the basis of Rorschach test results communicated far better than those matched as hostile to one another. In addition, several past studies have obtained positive results with persons who were interpersonally close to one another, though they reverted to card or picture-guessing schemes in order to test out the strength of communication between them (Stuart, 1942; Rice & Townsend, 1962). Thus, while the persons may have cared greatly about their partners, the task they were involved in carried little if any direct emotional importance. I attempted to alleviate this shortcoming by having the message to be communicated being primarily the strength of the positive feelings held between participants. If a bond does really exist, then concentration and magnification of it should prove to be a highly motivating experience. That is, the bonds themselves will become the messages to be transmitted, rather than an extraneous, more artificial communication. Of course, since the bonds are always there, it becomes a problem to design

an experiment which will amplify them enough to be experienced at some instants while not at others.

It has been a long standing goal within the field of parapsychology to create in the lab the necessary preconditions for a "spontaneous" psychic occurrence, to reproduce a situation in an observable setting similar to those which give rise to such communication in real life. Much of the focus in attempts of this sort has been on working with known mediums and others who supposedly possess a high degree of telepathic, clairvoyant, or precognitive abilities. Though it's been a working assumption that such abilities are normally distributed in the general population, studies utilizing non-gifted individuals have been more concerned with internal than with external validity, concentrating on a tight control of all variables. In the process, motivation became a secondary concern, though it's been implicitly recognized as an important factor by the general tendency for scoring in psychic communication tasks to fall off with successive trials (Rhine, 1969; Schmeidler, 1969). In any event, only a handful of studies have explicitly attempted to manipulate the motivation factor with general subject populations. Salaija and Rao (1973) recognized that the motivational factor overrides many others and built it into a series of experiments wherein participants felt that their scores on standard ESP tests would affect their admission to a special course or their chances for employment. Overall,

they scored significantly poorer than chance in test sessions held before a (mock) interview, and significantly better in sessions following the interview. The most reasonable explanations for this appear to be that they were more relaxed in the post interview sessions and/or that they were more psychologically prepared for the second test (some form of learning effect). In any event, any increased motivation would appear to have been confounded with the pressure subjects were experiencing to perform well. Since psychic abilities are generally thought to be enhanced under relaxed conditions, this "real-life" situation might have been motivating in a detrimental manner.

Martin Johnson also devised an experiment for testing ESP in a high motivation setting (1973). Answers to a psychology test were hidden behind the question sheet without the subjects' knowledge, to avoid the confounding effects of factors such as their attitudes. In some cases the hidden answers were correct, in others they were incorrect. His hypothesis, that persons in the former category would score higher and those in the latter group lower than chance were generally confirmed. Despite this, I have several arguments against this line of study. First of all, though motivation is certainly present, it is not necessarily motivation to utilize psi abilities, and as above, the pressure of the situation might actually operate against the

enhancement of such skills. The task does not involve inherent motivation to use psychic communication--the primary drive assumedly is to do well on the test, a task which for most people may lack the emotional involvement indicative of a large proportion of the "spontaneous" cases which have been reported. In addition, the use of deception (subjects were not told that test answers lay behind the question sheet), supposedly to avoid contaminating factors, raises a serious issue. If the phenomenon being studied is a valid one, then it stands to reason that subjects could detect not only the hidden answers, but also the experimenter's intentions. I present this as a general argument against the use of deception in any investigation of this class of phenomena. That is, given the existence of psychic communication, any efforts at deception might be registered by the subjects at some level of awareness, thereby making its use questionable and worthless.

The above two studies represent a small class of investigations into "real life" ESP. Rex Stanford presents a more complete survey of how unconscious psi powers may affect our everyday experiences (1974), by enabling persons "to respond to motivationally important information with which they not only have no sensory contact, but which they do not even know exists. A number of studies support the hypothesis that nonintentional ESP may serve a need-fulfilling function." (Such a factor might indeed operate in ordinary

psychological experiments as well, extending Rosenthal's [1963] and Orne's [1962] concepts of experimenter bias and demand characteristics to yet another dimension, as suggested by Kreitler and Kreitler [1973].) In other words, persons may use psi (ESP) in much the same way they use their senses, to choose from the environment information relevant to their specific needs. While I can fully accept the operation of ESP in this manner, past research has already suggested that intentional and non-intentional psi may operate quite differently (Lewis & Schmeidler, 1971). My interest is in how it can be consciously employed in a highly motivated setting, in a task that will be truly involving (emotionally as well as intellectually) for the participants. If ESP abilities do exist, my interest lies in determining how we can expand our awareness. I am less interested in hidden instances of "paranormal" communication or in statistically significant yet emotionally hollow "proof" of it, or in feats performed by especially gifted persons. For the phenomenon has broad social and psychological significance in direct proportion to its general availability and ease of application.

Another line of investigation which bears upon this study involves learning as a factor. Tart (1966) has spoken of the usual card guessing ESP tests as an extinction paradigm. This society's general attitude toward ESP follows a similar pattern, with claims of such abilities either dis-

believed or ignored. Children seem especially open to new forms of perception, yet they are constantly reinforced for their assignment of information to categories which can be sensed by "normal" adults. It would be an exceptional person who could grow up through years ot having a certain type of perception denied and still hold on to this talent. This point was driven home to me by a subject in one of the pilot sessions of this study. As a child in grade school, when her class played the game of hiding an object while she (or another student) was out of the room, she could visualize in her mind all the class's activities as well as the hiding place, though she was separated by several walls. Upon returning to the room and giving the correct information, she was accused of cheating and punished by the teacher. It didn't take many such incidents before she learned to repress such perceptions. Because of this type of situation, it is unclear whether studies dealing with the learning of psi are really attempting to train a new skill or to remove barriers so that an old, innate one may come to the foreground. In either case, a number of studies have shown that "learning" of ESP does appear to be aided by providing feedback to the subjects and that, as in broader learning studies, the more immediate the feedback, the more beneficial it is. As with any other task that hasn't been practiced, knowledge of how closely they are performing to an ideal allows subjects to adjust their subsequent perform-

ance. Specifically, with this phenomenom, feedback seems to allow them to sort out veridical ESP cues from extraneous ones--it is the development of an internal guidance system, one which appears to be symbolically different within different individuals. Some researchers, though, have suggested that the benefits apparently derived from feedback are actually due to mood changes (Schmeidler, 1974). This possibility, that the feedback is acting as a mediator for positive mood variations, should be borne in mind.

Charles Honorton has conducted the most research into ESP feedback learning (Honorton, 1970 & 1970a; Honorton, Davidson, & Bindler, 1971; McCollam & Honorton, 1973); the major finding being that short feedback sessions do indeed enhance subsequent ESP performance. Longer sessions appear to result in boredom on the part of subjects and lead to no significant scoring differences over controls. It should be noted that a card-guessing design was utilized, probably amplifying any tendency to become uninterested with longer trials. Several studies using mechanical teaching machines to provide visual feedback have also lent some weak support to an ESP learning paradigm. (Tart, 1966a; Dagle & Puryear, 1969). These results draw to mind a possible parallel with biofeedback research; normal persons are learning to discriminate between perceptions which were previously out of their awareness. Reinforcement of correct responses can lead to increased success even without the subjects being able to

clearly verbalize how they're achieving it. The study described herein will attempt to make use of this principle by providing participants with a brief "warm-up" period during which they'll receive immediate feedback on the correctness of their answers. Hopefully this will increase their discriminative powers (or at least their mood state). However, feedback will not be provided during the actual experimental trials, since this would unduly complicate the logistics of the study as well as the statistical analysis.

Perhaps a more important learning component of this investigation will involve the effects of group influence and affiliation. The very subject of psi communication has been largely taboo in this society, though in fact many individuals have had experiences which might fall in this realm. By providing some time and an open atmosphere in which they can share such experiences with one another, they should learn to be more open to their occurrence. As Lewin (1947) discovered years ago, such group involvement and social support for a relatively new position fosters the formation of new norms. By going beyond just the verbal presentation of a novel framework for consideration of ESP phenomena to a format involving the subjects' participation in a discussion of same, the likelihood of their accepting notions of an expanded reality should be enhanced.

Beyond the shared informational benefits of a group setting, Schachter (1959) and others have demonstrated the

desire of persons to be with others when confronted with an unfamiliar, possibly anxiety-producing situation. It is likely that when untutored persons are placed in a milieu as removed from common conceptions of reality as a psi test would be, they'd feel more comfortable in the company of others facing the same experience. And if the others are already known to him or her, then any anxiety should be minimized. So two basic arguments for a group test of psi are its possible comforting function, and its value in establishing a new basis for social comparison. Studies by Sherif (1965), Asch (1965) and others have testified to the strength of group influence as a determiner of "reality." Here that influence will be used to help counter years of negative reinforcement of psi abilities in this society at large. In addition, the findings of this study may add to the collection of facts which don't fit in with currently accepted scientific psychology. As such they will be serving the Garfinkelian (1964) purpose of violating the existing accepted norms so that they may be brought to the foreground and examined. This is a necessary step in the process Kuhn (1962) outlines of how current paradigms become revolutionized. That is why I am torn between presenting this research as an extension of accepted psychological studies or as part of a new realm. Though it is undoubtedly both, presenting it as the former may serve to blur its revolutionary aspects, while the latter conception would

remove it entirely from the scope of present day academic psychology. I have therefore attempted to arrive at a course somewhere in the middle.

One area this research may be seen as an extension of are the studies into the nature of non-verbal communication. Evidence accumulated to date shows that nonverbal cues such as facial expressions, kinesics, and proxemics are often more accurate guides to a person's emotional state than are his or her words. Their detection and understanding, however, generally require subtle perception and practice. Perhaps at a still deeper level the same is true of psychic, or non-verbal non-proximic communication. That is, its perception and interpretation might depend on still more subtle cues, yet it might reveal more understanding of another person than either words or standard non-verbal exchanges. If this is true, then as I stated before, some form of feedback would be essential. Just as non-verbal cues may vary between cultures (see Hall, 1966), this other channel might well embrace idiosyncratic symbologies which need to be deciphered. In this experiment, besides specific feedback on the pre-trials, the groups will also be providing a more general form of feedback by providing the cognitive background and assumptions against which new cues will be seen. As Schachter and Singer have shown (1962), interpretation of one's (emotional) state has a cognitive component, so the set of the group will be a factor

in subjects' interpretation of incoming cues. To the extent that this set is a favorable disposition to the existence of ESP, individual participants should be open to it. This is kind of a corollary to Schmeidler's "sheep-goat" finding that those who admit some possibility of ESP (sheep) are more likely to score well on a test of it than are those (goats) who don't believe in the existence of the phenomenon under the testing conditions. In this case, group influence is invoked to reinforce any sheep tendencies present.

One more aspect of non-verbal non-proximic communication would be worth mentioning at this point. Some (inadequately controlled) studies with plants have suggested that they may have the ability to detect emotional changes of either plant or animal life, even when at a considerable distance from the other organism. Cleve Backster reported on these findings in 1967. His most recent research (1973) has been conducted with bacteria, one-celled plant bodies. He has purportedly found that they will respond (by activating an EEG record) when another sample, shielded and at a distance from the first, is given nutritive reinforcement. (The entire experiment is supposed to have been conducted automatically, with no human intervention, so experimenter effects can be largely ruled out.) Research by Barry (1971) and by Brier (1971), as well as a recent uncritical review by Marcel Vogel (1974) likewise suggest the possibility of this type of communication link. My point is this: if

single-celled life has the capacity to be sensitive in this fashion, then it seems eminently reasonable to assume that man, with his vastly more elaborate mental apparatus, can do at least as much. As Hebb has stated (1974), the "living brain is always broadcasting;" if part of the broadcast is telepathic, it is then a question of becoming attuned to those particular frequencies on which the broadcasts occur.

This view is a logical extension of that held by the transactionalists and field theorists in perceptual psychology (Deikman, 1973; Cantril, Ames, Hastorf, & Ittelson, 1973). Individuals are part of a larger unity, a biosystem linking all living things. The interconnections are always there and "ESP" is therefore a matter of bringing into consciousness what is already operating through the person. That is why the necessary process may be more one of unlearning than of learning. Unlearning to put on our assumptive blinders about what our environment is really like. Unlearning to see ourselves as separate, clearly definable entities without connections to those around us. Unlearning to rely on classical science; and opening ourselves up to psychological parallels with modern-day physics (LeShan, 1969). In other words, at some levels we are interacting with one another at all times. As Dr. Harold Burr (1972) discovered in his forty years of experimental research, "the field characteristic of a living system is a basic property of life." The difficulty lies in developing the sensitivity to this.

But being made aware of this in a close group, with some personal ties already experienced, should make the task easier. The interlocking of fields of consciousness accompanies our interdependence and appears to be the basis for telepathic communication, whatever the actual mechanism is. Having persons feel close contact together in a "normal" manner first should help to prepare them in extending this closeness to the realm of consciousness. We easily accept the reality of inanimate physical forces acting at a distance with no apparent intervening media--notably magnetism and gravity. Is it any more extraordinary to expect the same of the human mind? Especially so when it's considered that neural mechanisms within the mind operate without actually contacting adjacent members. Perhaps there is a direct analogy between the functioning of individual neurons and the brain as a whole.

Our capacity for sensitivity does not appear to be bounded by many commonly accepted limits. As J. B. Rhine has put it (1974), "no space-time-matter limitations have been acceptably demonstrated in an individual's parapsychic system." However, a number of psychological and personality variables do appear to have profound effects on psychic sensitivity. Chief among these is the previously mentioned "sheep-goat" effect, with those persons positively disposed towards this phenomenon being significantly more likely to display it than are those who deny its existence. As I've

stated earlier, this experiment will be set up to take advantage ot those factors which have already been shown to enhance psychic communication effects. In line with this, participants will be restricted to those who at least believe in the possibility of these events occurring. Similarly, past research has shown that the experimenter's mood is also related to ESP scoring (Osis and Dean, 1963; Price, 1973; Schmeidler, 1971). This does not refute the validity of the phenomenon, but only underscores my previous observation on the interconnectedness of consciousness fields. Given this assumption, it is easy to see how lack of openness on the part of any participant in the study would serve to block the desired effect. Therefore, experimenters in this study will likewise be confined to those who are open to the existence of telepathic effects.

Beyond the importance of the above belief factor, some research findings have pointed to the salience of the strength of individual boundaries as a determinant of psychic abilities. Schmeidler and LeShan (1970) found that higher ESP scores (among "sheep") were associated with low "barrier" and high "penetration" Rorschach ratings. In other words, the better performers were those who appeared to be more open to outside influence and less defensive about themselves. In another study, Kanthamani and Rao (1973) discovered extroverts scoring significantly higher than introverts, a further indication that persons more open to their

environment (including other persons) would also be more apt to be open channels for receiving psychic inputs. In a similar vein, the same authors found that "expansive" persons obtained higher ESP scores than did "compressive" subjects (Kanthamani & Rao, 1973a). (Assignment to one of those two categories was dependent on certain results from the house-tree-person drawing test.) Osis and Bokert (1971), in a systematic investigation of subjective states of consciousness and ESP determined that a "feeling of loosening self boundaries," an openness to merging with others, was the strongest indicator of psychic success. They worked with selected groups of "compatible" individuals, and presumably the closeness developed within each group contributed to the experiences of self-transcendence. The outcome of a study by Hudesman and Schmeidler (1971) may be interpreted along parallel lines. They found that ESP scores following therapeutic sessions were a reflection of how good the session was, in terms of "therapeutic progress." Since the sessions were rated based on the patient's new insight, it seems that a redefinition of self took place and that there was a real sharing or opening up with the therapist. The same theme noted above, of loosening self boundaries, seems to be echoed here. In a more recent article, Schmeidler (1974a) also speaks of extroversion and "labile openness to impressions" as being the prime psychological factors associated with success in ESP tests. However, she does caution

against using this as a hard and fast rule, since not all studies have shown this relationship; and she reminds us that all these findings apply to "the special demands of laboratory or classroom testing" and might not be generalizable to broader situations.

The overall pattern of previous research into psychological variables associated with psychic communication does appear to tie in with the motivational, social and perceptual viewpoints already expressed. All point toward the breakdown of barriers between persons as an important factor in fostering this phenomenon. Schmeidler implicitly recognizes this with her statement that "Many psychics fail with impersonal material like ESP cards but show success with material that involves human beings." (Ibid.) Remarkably few studies have taken full advantage of this knowledge, though. It is true that Osis, Bokert, and Carlson (1973) did consciously try to develop a sense of closeness within the groups they formed, but the ESP tests they then had them take part in involved guiding another person's hand in choosing 1 of 25 squares viewed over a closed circuit TV, or perceiving a slide viewed by someone else in another room. In other words, full use wasn't made of the interpersonal connections established; subjects were asked to become involved in tests which were extraneous to any sense of closeness which developed between them. The authors became cognizant of this, commenting that "the disruptive effect of the

testing procedures is a major reason why the test results were not equally dramatic" (with instances of spontaneous ESP in the groups).

W. N. McBain et al., as reported in Schmeidler's article, did not make use of groups but they did utilize information about subjects' emotional reactions to match them with like-minded persons, and then used as ESP targets those concepts over which the pairs showed emotional similarity. Thus, the bases for their connectedness were themselves used to test the strength of their inter-psychic communication. What I am proposing is to create a compatible group atmosphere as Osis and Bokert have done and then to use the interpersonal bonds thus established as the targets in a following test of non-verbal non-proximic communication. Hopefully this procedure will prove naturally involving for the participants and won't constitute an undue disruption of the group feelings established, of the breaking down of personal barriers which may have occurred.

One additional benefit of this set-up is that it's likely to enhance the moods of the participants by drawing their attention to positive feelings between them. Since previous authors, including Murphy, Osis and Bokert, and Schmeidler have documented the positive effect of a buoyant mood, this secondary result should further aid the results obtained here.

One other major domain of past ESP research bears relevance to the present study, and that is the effect of states of consciousness. Hypnosis, dreaming, progressive relaxation, suggestions for mental quietude, meditative exercises, and sensory isolation all have been successful in creating a psi-conducive state. The common effect of all these (Honorton, 1974; Honorton & Harper, 1974) is one of sensory withdrawal. That is, attention is withdrawn from the normal sensory channels and left free to accept other forms of input; subtle psi cues may be discerned against a relatively quiescent, noise-free internal environment. The impressions thus don't have to reach the same high threshhold level they do in the many reported spontaneous cases which are connected with personal tragedies such as deaths in the family. To draw upon a simple analogy, stars are seen only at night, when the brightness of the sun no longer interferes with their subtle flickerings. The stars, though, are always in the sky. Similarly, most evidence points to the fact that "paranormal" impressions are always about us, but we can only detect them when the tumult of ordinary consciousness has been stilled in our minds.

Braud and Braud (1973) have conducted a definitive series of experiments demonstrating the efficacy of physical and mental relaxation in producing significant levels of ESP responses. Their findings were replicated by Stanford and Mayer (1974), utilizing the same progressive

relaxation techniques. It is worth noting that both subjective (self-report) and objective (EMG) ratings of relaxation in the Braud studies correlated positively with psi scoring, indicating that the measured effect is not simply a confounding of variables like "belief, mood, and attitude." Since the procedure they employed appears to be the simplest one which has yielded repeated success in the literature, I will be integrating their general approach into this research model.

One additional variable which I'll be measuring will be a possible indicator of the brain laterality employed by subjects during the testing session. As Braud and Braud point out in the discussion section of their most recent publication (1974), the presence of relaxation would be indicative of a "receptive mode" of consciousness, paralleled by a shift toward dominance by the right brain hemisphere. And as Ornstein discusses in his book (1972), this would mean movement away from the linear, rational, verbal processes of the left hemisphere and toward the intuitive, holistic functioning of its complement. Numerous publications, most notably the work of Gazzaniga (1973) and Sperry (1974) have documented the functional specializations present in our brain structure. However, to my knowledge, no published psychic research has made direct use of this theoretical finding. Braud, Smith, Andrew, and Willis (1975), though, have just presented experimental evidence linking differen-

tial hemisphere activation with ESP scoring differences. Their procedure, which involved engaging the attention of one hemisphere at a time, yielded results consonant with the above formulation. If a clear, simple measurement of brain laterality could be developed, it could thus be indicative of subjects' psi receptivity. The problem, though, has been one of finding a test of it which wouldn't intrude into the already established experimental milieu. Results from studies of direction of gaze shift following questions of either a verbal or spatial nature have not shown a consistent pattern (see Ehrlichman, Weiner, & Baker, 1974), and although investigations testing hemisphere dominance through an audio mode appear more promising, the equipment and time involved speak against its use in this research. Instead, I have followed the advice of Charles Honorton, in looking at Eastern techniques as "fertile ground for parapsychological hypothesis-testing and conceptualization" (1974). The swami in Schmeidler's meditation study (1970) speaks of the differing effects of left nostril and right nostril breathing, and I've made contact with a research organization in California supporting this contention. The Tantra Research Institute is attempting to amalgamate ancient Hindu wisdom with modern scientific thought and methodology. Though their suggestions at this point are unsubstantiated by published Western research, they have been demonstrated to me on a personal level and I am therefore

utilizing their conceptualization in my design; to my knowledge this will be the first full-scale study in this country doing so and I invite others to share in this "fertile ground." According to these Indian scholars, Harish Johari (1974) and Tariq Hamid, the nostril a person is breathing through is a clear indicator of which hemisphere (and which mode of functioning) is dominant at that point in time. It may be easily validated by anyone that we generally breathe predominantly through one nostril or the other, with the dominance shifting about every hour. Breathing through the left nostril supposedly indicates that the right hemisphere is dominant, due to a difference in negative ionization between the two sides. Since right hemisphere functioning appears related to non-linear receptivity (Bogen, 1973), if the above conceptualization is correct, then those persons using their left nostril should do significantly better on a psychic communication task than those breathing through their right side. The only prior scientific reference I've come across which made use of this psycho-physiological model was reported by Puharich (1962). His brief study (with just two subjects) of how breathing patterns relate to ESP scoring produced significant results in support of the above hypothesis. This could be a relatively simple way of applying ancient Eastern wisdom in a Western format. It is hoped that this investigation will help to determine its efficacy.

Beyond experimental studies relating states of

consciousness to psi success (and I have not included here research concerned with non-waking states such as dreaming and hypnosis), psychologists and others have had much narrative comment on this topic. It's been widely recognized that "western scientists must be prepared to satisfy the conditions of these subtle phenomena in order to demonstrate their reality" (Ornstein, 1972). I've already outlined those elements Gardner Murphy suggested for creating a psi-conducive state. Some years ago, Rhea White was more explicit in reviewing old and new methods of perceiving psychic information (1964). She emphasized the importance of fulfilling internal, subjective conditions rather than objective conditions as prerequisites to effectively opening oneself to this form of communication. Charles Tart carries this message still further in arguing for "state-specific sciences" (1973). He makes the point that scientific paradigms employed in ordinary states of consciousness may act as blinders to the phenomena under study and that the scientist must allow himself to enter into the specific state of consciousness under consideration. From that outlook, each science may be developed by trial and error rather than by ordinary consciousness reasoning. This point is even more forceful when one considers that the state being studied here might very well be primarily a function of right hemisphere processes. If so, then thinking of it in a linear, logical left-hemisphere framework might cause us to miss its essence. This is the very reason

why I've become so personally involved in trying the techniques and viewpoints elucidated here and why in the end I'm placing at least as much reliance on my own phenomenological experience as on prior scientific findings. In areas like this, a comfortable balance must be struck between the two; science in its purest form need not imply rigid adherence to possibly outmoded paradigms of how the universe operates. In short, I believe experiential involvement with the phenomena being explored to be an essential link in the scientific process, and I have utilized knowledge gained in this fashion in developing my methodology.

Those procedures which I have found most effective in producing psi-conducive states of consciousness are highly synchronous with the writings of a number of other interested investigators and teachers of psychic development. For Rhea White, who also emphasized the importance of the experimenter having personal experiences similar to what's expected of the subjects, the essential ingredients were 1) physical and mental relaxation, 2) emptying the conscious mind and holding it still, 3) waiting for the perception to enter into consciousness, and 4) recognizing it when it does enter--the "knowing." The same general themes of training the mind to cease inhibiting extra-sensory inputs and of fulfilling subjective rather than objective conditions for psi enhancement are echoed in the work of Milan Ryzl (1972),

who is probably as familiar with Russian and Eastern European efforts in this field as anyone in this country. Again, the recurring themes of practice, relaxation, blanking the mind, and finally waiting for perceptions are paramount in his suggestions. More popularized versions of psychic development instruction books (Porter, 1974; Sherman, 1964; Weed, 1970) concentrate on the same major techniques, lending further weight to their validity (if the authors' claims are accepted). Likewise, Don Juan's advice to Carlos Castaneda: "Sit here and turn off your internal dialogue. You may gather the power needed to unfold the wings of your perception . . ." (p. 271, Castaneda, 1974).

In reading through other spiritual and mystical accounts of telepathic communication (Bailey, 1950; Baba Ram Dass, 1971), though, one additional major element is evident in their accounts, and that is the function of love. This is purported to be the link, or key to the success of such communication, the vehicle upon which psychic connections are made, the source of energy for conveying impressions from one person to another. Thus, this research again finds implicit support from a non-Western framework, since participants will be asked to communicate in terms of their positive love feelings for one another. I bring this up as a further indication of how this study may serve as a bridge between the more traditional psychological sciences and the state-specific research endorsed by Tart and others. (Of course,

it must be recognized that the above cited parallel does not indicate that spiritual disciplines would endorse the general design of this investigation. To the contrary, they would probably argue for the acausality of this entire realm of phenomena and against efforts to explain psychic communication in any simple cause and effect system.) But then, as LeShan (1974) has discussed, "mystical" conceptions are strikingly close to those of modern physicists. Perhaps we have labored too long under the influence of the psychological equivalent to classical Newtonian physics.

In summary, I am attempting to answer Murphy's challenge by providing all the elements he outlines as essential to this phenomenon, and then going a step further, in considering the social psychology of psychic communication. As the preceding pages indicate, and as will become clearer in the Methods chapter to follow, I have endeavored to employ an amalgamation of the most successful means of inducing non-verbal non-proximic communication. I have drawn upon the results of past studies concerned with the effects of motivation, learning trials, belief and mood, psychological boundaries, and states of consciousness. Serious consideration has been given to the importance of a group milieu and its potential effect on meaningfulness of the task, reduction of individual boundaries, reduction of anxiety levels, and learning of a new norm. In addition to these possible beneficial results from employing a group setting, one might

speculate that having a group rather than a single individual directing communications to other individuals would strengthen the power of those messages in some unknown fashion and increase the chances of their being correctly received. Finally, beyond the uniqueness of this research due to its utilization of groups in the manner outlined, two other points serve to make it a departure from prior investigations. First, it is involving participants in a situation of real emotional significance to themselves, especially in the case of groups whose members know one another. Secondly, it makes use of a possible simple and direct measure of brain hemisphere dominance. Perhaps all these factors will yield a successful answer to the challenge presented at the beginning of this chapter.

II

HYPOTHESES

Though several major hypotheses are to be tested directly, it should be borne in mind that this research is largely exploratory and as such, a number of minor hypotheses will also be investigated. Results derived from these subordinate hypotheses would be suggestive of further, more detailed studies to be conducted. All hypotheses are listed in summary form at the end of this chapter, for easy reference.

The primary hypothesis is that non-verbal, non-proximic communication effects will be strongest when a group with prior positive associations together (condition I) is acting as a transmitter. The effects will be stronger for this group than for either a group of strangers (condition II), or for individuals known to one another attempting to communicate in this fashion (condition III). The rationale underlying this is twofold: the beneficial effects of an assumed reduction in individual ego barriers (to be verified by a self-relating scale) which occurs when persons have been relating positively with one another over an extended period, and an assumption that the strength of the communication effect being studied is in some degree additive or multiplicative between persons. That is, several persons concentrating on the transmission of a given mood or message will produce a stronger signal (and thus,

one more liable to detection) than will one person acting alone. No prediction is made regarding the relative strength of the phenomenon in conditions II and III, though this relationship will be looked at. There is no basis at present for assessing the relative strengths of the familiarity and group size effects.

An additional major hypothesis is that existing affinity groups participating in this experiment will yield results significantly greater than chance expectation. I have previously discussed the manner in which this research tries to take advantage of relevant findings in creating a setting which should prove generally conducive to the phenomenon under study. Given the limitations inherent in producing positive communication patterns between strangers in just one 2½ hour session, though, it is not hypothesized that subjects in group II will perform significantly better than chance. Nor is it foreseen that those in condition III will do so, since they won't have the benefit of multiple transmitters. In general, however, over all three conditions and within each one, I expect communication scores to correlate positively with average self-ratings on the group cohesiveness scale (a major hypothesis).

It should be noted that communication effects will be measured and tested in several ways. The first mode of scoring will be based on the number of timed trials subjects are correct in assessing whether or not the group is attempting

to send positive feelings towards them. The second method will look at correct trials only for those on which subjects feel a high degree of assurance about their responses. The question being looked at here is whether experiences of greater assurance might be indicative of increased success in perceiving the communication. The third score to be evaluated involves the number of times subjects correctly perceive the body part at which communications are being directed. The groups will be attempting to transmit to one specific section of the subject's body throughout his or her series of trials, so the impression might build up and be stronger for this more overall type of communication than for any individual timed trial. That is, possibly a Gestalt about the body region can be discerned even when signals on the discrete tests cannot be. Finally, assurance scores of body part impressions will also be assessed. Subjects' scores for the timed trials and body part trials will then be added together to obtain their total scores.

Though all scoring methods are anticipated to show the hypothesized relationships, they are expected to do so with differing strengths. One minor hypothesis is that body part scoring will be better than timed trial scoring, within each condition and overall, because of the assumed Gestalt effect outlined above.

Another subsidiary hypothesis is that assurance trials will improve both timed and body part scoring. Results from

past research utilizing confidence scoring have been mixed (Rhine, 1971; Honorton, 1970a), and this will be an effort to help determine if they have any value over and above normal scoring procedures.

Another secondary relationship under question concerns the effect of brain hemisphere dominance on ability to discern psychic communication. The proposition is that in each condition, and over all conditions, those persons who report breathing predominantly through their left nostril will score significantly higher than those reporting using their right nostril more. It is recognized that this is an exploratory new means of testing hemisphere dominance, and so positive findings will only support further research into this contention, not establish its validity as a test of mode of consciousness. Corroboration of this hypothesis, though, would be consistent with more general research discoveries linking right hemisphere functioning with intuition and with receptivity to non-linear inputs.

An additional subordinate hypothesis is that scoring for each person's preferred target aspect (timed or body part trials) will be better than for the other type. (Participants will be asked to specify which they prefer.) Many past studies have indicated that when subjects are tested under varying conditions, there is a differential effect, with scoring above chance in one and below chance in the other situation (Schmeidler, 1969; Rhine, 1971).

The purpose of this hypothesis is to determine if such a differential effect exists in this study.

If body part scoring is truly a function of cumulative impressions which build up over the course of the timed trials, then persons who are chosen as the target most often would have the most body part information coming to them and should be most accurate at determining the correct choice. This line of reasoning has led me to formulate another exploratory postulation: that persons who are the target on at least three of the seven timed trials will score better on the body part trial than will those who are transmitted to fewer than three times.

The final minor proposition to be explored involves an observation often made in psychic research. As previously noted, a "decline effect" frequently occurs, whereby scoring on later trials drops off from earlier levels. This is generally attributed to subject fatigue and loss of interest. In the present study, one additional factor might operate to increase this effect--a tendency for subjects to guess that they'd been sent to on later trials if they hadn't felt any impressions yet; increased second-guessing of the probabilities as the session continues. It is proposed that because of these factors, scoring over the first four timed trials might be superior to scoring over the last three.

All hypotheses will be evaluated at the .05 level of significance. Summarizing:

Major hypotheses

Scoring in condition I (friendly groups) better than in condition II (groups of strangers)

Scoring in condition I better than in condition III (friendly individuals)

Scoring in condition I better than chance expectation

Scoring positively correlated with group cohesiveness ratings

Minor hypotheses

Body part scoring better than timed trial scoring

Assurance scoring better than normal scoring for both body part and timed trials

Those reporting left nostril breathing score better than those reporting right nostril breathing

Scoring for preferred target type better than for non-preferred type

Better body part scoring by persons who are the target more often

Scoring better on first four timed trials than on last three

Additional hypothesis

After the data were collected, but before any scoring was done, the groups of friends were divided into those which were "extra close" and those which just met the original standards of closeness (see Subjects subsection of Methods chapter). At that time an additional hypothesis was added. This was that the scoring contrast would be greatest between the "extra-close" groups and the groups of strangers.

III

METHOD

Research Design and Modifications

As originally planned, three different types of groups were to be set up:

a) Groups in condition I, consisting of six persons who already knew one another and had established some type of ongoing good feelings amongst themselves, as determined by both self reports and by the author's impressions during a screening interview. For instance, they were persons from the same consciousness-raising, meditation, or work group.

b) Groups in condition II, made up of six persons unknown to each other.

c) Groups in condition III, also composed of friends, but with only three persons in each group.

With the groups constituted in this fashion, when two persons were removed from each one to receive communications during the experiment, this would leave either four persons (in conditions I and II) or one individual (in condition III) to transmit. Six was chosen as the standard group size since it afforded a sizeable core for transmitting without unduly lengthening the experimental session by having too many subjects, or making it too difficult for participants to become familiar with one another. Each person would

serve as his or her own control, being transmitted to on some randomly assigned trials but not on others.

Ten groups in each of the first two conditions were to provide sixty subjects from each, while the same number of groups in the final condition yielded thirty testable subjects (since a total of only three persons would be receiving in those cases). However, two difficulties arose in conducting the larger groups. First there was the problem of no-shows (though all subjects were called back and reminded of their appointments the preceding evening). This was accommodated by running the groups with fewer than six members if necessary, but counting the results for group comparison purposes only if there were at least five persons in the group. It was felt that three persons transmitting would be the minimum number necessary to provide a meaningful contrast with the individual (condition III) situation. The second dilemma arose when it became evident that insisting on six members would break up or disallow organically cohesive groups of a slightly different number which would otherwise be appropriate for the study. For example, allowing only six persons of an eight person group to participate resulted in a group feeling of incompleteness which might easily have interfered with the phenomenon under study. There were simply not enough pre-existing groups of exactly six persons to hold arduously to that figure. Though there weren't always six members in each group, condition I

had 60 participants and condition II had 56. The results of six other groups are not included in the group comparisons because they had too few members or a mixture of some persons who were friends and others who were strangers to one another. The total sample was 36 groups, 172 subjects.

Location

The experiment was carried out between March and May, 1975 in the San Francisco-Berkeley area.

The study site varied, but always included a comfortable central room where the group could meet, and two separate, sensorily-isolated receiving rooms. For the friendly groups (conditions I and III), the location was often the residence of one of the members, thereby abetting any inherent feelings of cohesiveness. The stranger groups (condition II) and several of the others took place at one of three houses made available to me in Berkeley. When the experimenter arrived at the study location, he (she) would determine which rooms would serve most suitably as the receiving sites. They needed to be out of sight of the central room, far enough away so that auditory cues could not be transmitted from that central room, yet so situated that the experimenter could observe their approaches from his seat in the main room. This was to check against any possibility that receiving participants might leave those rooms to get close to the main room or to consult with each other

during the trials. Doors of the receiving rooms were closed, and extension speakers directed at them, to carry background music and the taped instructions to the recipients.

A complete log of all sessions, indicating location, time, and experimenter for each, is included as Appendix A.

Experimenters

Five experimenters, including myself, conducted the study, each assigned to an equal number of groups in each condition. I conducted five in each condition, one person conducted two, and the other three experimenters conducted one group in each condition. I then had to run an additional session in the three-person condition to make up for one which was disallowed. All experimenters were college graduates between the ages of 21 and 31, with an interest in this area and a firm belief in the existence of telepathic modes of communication. The specific instructions given to them are included as Appendix B. Though the four experimenters besides myself obviously were aware of the different experimental conditions, they weren't told of the specific hypotheses being tested until after the study was completed.

Subjects and Subject Recruitment

The subjects were unpaid volunteers ranging in age from 16 to the mid 60's, mostly in their 20's and 30's. Educational level and vocational fields varied widely.

They were recruited by the following notice, placed in a local bi-monthly listing of educational offerings, read aloud at a monthly meeting of the California Society for Psychical Study, and announced on a Sunday midnight radio show which dealt with the psychic realm and related topics:

> A researcher in the Berkeley area is conducting an interesting investigation of psychic communication and is interested in persons who would like to participate in his experimental study of group telepathy. No prior experience is necessary, just an open mind and 2½ free hours. Techniques will be taught which you may use on your own afterwards. He is especially interested in finding groups of 3 or 6 friends who would like to participate together, but all individuals are urged to respond. For more information and an appointment, please phone 524-0307 evenings.

(All sessions were scheduled to begin in the late afternoon or early evening, generally at 7:30 P.M.)

Any callers reporting extensive practice with ESP were screened out, to yield generally non-gifted subjects. If persons were calling for their friends as well, they were likewise told that anyone who had practiced ESP to a great extent should not participate. Each individual caller was assigned to condition II, with callers known to one another assigned to different groups. In this manner, stranger groups of six persons were formed. Familiar groups of three persons (condition III) were assembled by inviting notice respondents with two interested friends to participate together. Groups in condition I were formed similarly, when callers indicated they had approximately five friends desiring to take part in the study. In addition, several

groups of friends were recruited by extending personal invitations to groups with whom the author was familiar.

Six of the groups in condition I and four of those in condition III were composed of persons who either lived together or had other ongoing close contact with one another on a daily basis. These were known as "extra-close" groups, and the data would be examined to determine whether the hypothesized relationships held more strongly for these more strictly defined cohesive groups.

Attempts to Establish Appropriate Ambience

Subjects were prepared for the study by being asked to wear loose, comfortable clothing, and not to eat, drink, or partake of any alcoholic beverages or drugs for at least several hours before the experimental session. Both these requests were designed to place them in a more receptive state, the former by helping to relax their bodies, and the latter by assuring that their energy and attention would not be distracted or bound up in the digestion of food. In addition, this would lessen the chances of extraneous cues from the digestive tract being mistaken for communication effects.

Participants were asked near the beginning of the sessions to spend about three minutes apiece introducing themselves to the group and stating their reasons for being there, along with relating any personal experiences they'd

had which were similar to the effects being studied. This served a number of purposes. First, as discussed before, it helped to reinforce a new norm which accepted rather than rejected such experiences--a number of subjects in the pilot sessions had discussed things they'd never mentioned to anyone else in their entire lives. Secondly, by partaking in an emotional sharing with one another, interpersonal ties were established and/or strengthened. Thirdly, this discussion provided each person with some information and emotional feeling about the others, so they had a clearer idea of who they were transmitting to later in the session. And finally, it helped to create a more relaxed atmosphere in which to continue. (Studies by both Honorton and Harper [1974] and Osis and Bokert [1971] in the past have also employed periods of group relating prior to the actual experimental manipulations.)

Drone-like Indian music was played softly in the background throughout the sessions. Its relaxing effects and the tendency it had to center people around a similar rhythm were assumed to make communication easier. Similarly, relatively low lighting served the purpose of helping to screen out sensory inputs and centering the mind. In general, the induction they would be taking part in was aimed at training them to relax their bodies and minds, emptying their minds of their normal contents, and then just waiting patiently for impressions to enter.

At the point when two persons were removed from each group to receive impressions, the remaining member(s) played a blind role in choosing the target area. This participation seemed to increase their interest and involvement.

The initial feedback trials, in addition to providing an opportunity for practice, allowed a common response bias to run its course without being included in the scoring. Preliminary versions of this study pointed out a tendency on the part of subjects to feel that the positive communication was being directed at them on the first trial. In the present study, by the time the test trials were reached, such a bias no longer evidenced itself. Hopefully, then, the feedback trials made the subjects more apt to respond to veridical internal cues than to this general bias.

Feedback from the percipients to the group also would probably have been beneficial to overall communication, but no simple means of accomplishing this could be designed. Consideration was likewise given to having members of the group mark down confidence ratings on how well they were transmitting, but it was felt that the paper work involved in the experiment was becoming excessive, that it would prove distracting to the milieu created. In addition, a relevant study by Anderson and White (1969) indicated that the receiver's perception of the sending agent(s) is of much more import than the agent's views of the situation.

Materials

Upon arrival at the study site, participants were asked to complete the pre-session questionnaire (Appendix C). This included self-ratings of their closeness to the group and their general mood on 7-point scales. It also contained questions aimed at determining their attitude towards psychic phenomena and to what extent they'd practiced psychic communication before. While the subjects were completing this form, the experimenter filled out part of his (her) questionnaire (Appendix D), indicating his mood and energy state on 7-point scales, and listing some demographic information about that particular session.

Subjects were prepared for the trials by a tape recorded series of relaxation and visualization exercises. A full transcript of this "induction tape" is included as Appendix E. First there was a progressive body relaxation sequence, similar to that employed by Braud and Braud (modeled on Jacobsen), followed by suggestions for clearing the mind, and then for becoming centered in an open, receptive manner. After being told they'd been led to a deeper, clearer state of receptivity, they were asked to return to their normal waking consciousness and move around a bit. Following a break of several minutes, a similar sequence was gone through more rapidly and then participants were led on a visualization fantasy trip in order to demonstrate to them the patient waiting quality so important to an openness to

communications of a psychic nature. (The method used here was drawn in part from the work of Ryzl [1972] and Samuels and Bennett [1973].) Again the subjects were instructed to return to their normal consciousness after experiencing the receptive state. It was considered essential that they have this practice in entering and leaving psi consciousness, so that they would be able to reproduce it quickly during the experimental trials to follow.

Another tape, the "timing tape," was prepared to signal the experimenter and subjects when each (35-second) trial was to begin and end. A series of timed bell signals was superimposed on a tape of soothing Indian music; a single bell indicated the beginning of each trial and a double bell the end. (There was a rest period between trials.) An accompanying voice gave suggestions for producing a psi conducive state, and called out the number of each trial just before it began.

The order in which subjects would be removed from the group and asked to receive the communications was determined by their choosing one of a small pile of folded up papers. On each was written a number and letter. Those choosing 1A and 1B would be the first to be percipients, with 2A and 2B next and 3A and 3B last. (For condition III, the papers read 1A, 1B and 2B, while for conditions I or II with only five persons present, they read 1A, 1B, 2A, 2B and 3B.)

Copies of the drawings which were used to signify to

the group which body part was the target are shown in Appendix F. Each sketch of the human body has one specific part outlined, titled, and colored--either the head, the heart, or the navel.

Appendix G is a sample target sheet containing random assignments of the order in which the two receivers during each sub-session were to be contacted. Enough target sheets had been prepared for the entire study ahead of time. Before each session, the chief investigator blindly chose three from the entire pile, inserted each in a large brown envelope, and gave those envelopes to the experimenter. On each of the sheets, for three practice and seven experimental trials, the target was designated as A, B, or SELF. An A appearing as the target on a given trial meant that the group was directed to send positive, warm feelings to the person of the pair who had chosen "A" earlier in the session, while a B signified that the other person was the target on that trial. A SELF meant that the group or individual sending were asked to concentrate on themselves, sending to neither A nor B. Assignment for the practice trials was semi-random, with each person being assured of being the target at least once of the first three trials, to give everyone this experience before the test trials commenced. The A's, B's and SELF's were assigned to the experimental trials in completely random fashion, through the use of a random number table (from Appendix of Rand generated numbers

in Marasciulo, 1971). Digits 1 to 3 in the table were converted to A, 4 to 6 yielded a B, and 7 to 9 became a SELF on the target sheets.

When leaving the central room to receive impressions, subjects entered their responses on the session questionnaire (Appendix H). This included two questions aimed at discovering how close they felt to the group,* places for respondents to indicate whether they felt the group communicating with them on each trial, and 7-point assuredness scales on which they could rate how sure they were of their responses. The end of the questionnaire asked subjects to state which body part felt the most contact from the group, which aspect of the communications they preferred, and which nostril they were breathing through the most. Finally, they were given some space to record the way they sensed impressions and to list any general comments they might have.

Before sealing the session questionnaire in an envelope provided for that purpose, subjects were asked to copy their responses onto a short response form (Appendix I). This gave them a brief record which could be checked against the veridical pattern of communication at the end of the session. It provided a means for them to see how well they'd done without jeopardizing the validity of their original (sealed) answers.

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*As derived from questions 7 & 8 on page 62, Osis and Bokert (1971).

Procedure

Once the experimenter arrived at the study location and chose the receiving rooms, the lighting in them was adjusted to a low level and a writing table or tablet was placed next to the spot where the subjects would be seated. The experimenter then started the tape recording of background music, placing extension speakers at opposite sides of the central room, aimed toward the center.

As participants arrived, they were welcomed and asked to remove their shoes and relax till everyone was present. At that point, they were all asked to complete the pre-session questionnaire. When the questionnaires had been completed and collected, subjects each wrote their first name in crayon (their choice of color) across a blank 8½" x 11" sheet of white paper and passed this to the experimenter. These sheets were later used to denote the target person to the transmitting group. Since they were personalized in this way, participants were told, these name sheets embodied some of the emotional feeling connected to each person and helped the group to get in touch with that.

Next, the experimenter presented a general lecture on psychic, and particularly telepathic, communication. The ability to communicate directly with others, even at a distance, was put forward as a natural unfolding of our human potential, and some discussion was devoted to those conditions which generally give rise to the phenomenon. The

value of practice and feedback in developing this skill was spoken of, as was the need to quiet the mind, to reduce the input of everyday consciousness so that subtle cues may be discerned. Humans were presented as being composed of fields of energy which are constantly interacting with the fields ofothers, whether they're aware of it or not. The task then becomes one of tuning themselves to those "frequencies" which reveal these interconnections. Once this is done, once persons have learned to relax and still their thoughts, any incoming perceptions need to be deciphered--this is often the most difficult stage. Everyone has their own internal symbolism and receives differently, so generally much practice is required before these internal cues can acquire veridical associations. Finally, motivation of the subjects was stimulated by touching on the possible applications of the techniques being discussed to their regular lives at home. Once these aspects and others were reviewed in the introductory talk, questions pertaining to them were answered as well as possible, given the limited state of knowledge in this area.

Participants then spoke with the group for several minutes apiece, as described in the Ambience section above. When everyone had had a chance to share some feelings, the experimenter pointed out any themes running through their experiences which related back to the basic points about psychic communication reviewed above, thereby further

reinforcing those concepts. Following the group interaction, they were told of the positive effects of the music, the low lighting, and the induction tape they'd be listening to. Next, they were all taken to the two receiving rooms and allowed to look around and get acquainted, to reduce any distractions they'd suffer there during the trials to come. Upon returning to the main room, the details of the procedure (as elucidated below) were fully explained so that it was well understood and there would be minimal interference later when subjects were all in a more relaxed, receptive state. Once this was done, participants were again encouraged to ask questions, to clear up any uncertainties they might have about how the remainder of the session would be run.

They were then asked to choose one of the pile of folded-up papers, determining their order of leaving the central room. The experimenter noted the choices on his (her) questionnaire. The entire group was then led through the tape recorded induction exercises designed to show them how to enter into a psi-conducive state relatively quickly. When the tape was completed, the two persons who had chosen 1A and 1B were asked to leave the group, each going to a separate room in the building, with no sensory connections between them, or between each of them and the group. The extension speakers were placed in such a way that all participants could hear the taped music and timing signals.

At this point the experimenter asked the remaining person(s) to choose one from among three large brown envelopes. It was opened and a sketch of the human body with a specific part outlined was withdrawn and placed in the center of the group. Throughout the series of trials for the two subjects who had left, this was the body part the group focused upon during any communications.

Next, the person(s) in the central room were asked to choose from among three other envelopes which contained random assignments of the order in which the two subjects were to be contacted. The experimenter removed the target sheet from the envelope in such a way that he perceived only the target for the next trial. Then at the beginning of the trial, signalled by a bell on the "timing tape," he placed the crayoned name sheet of the target person in the center of the group. They were instructed to pulsate their positive feelings towards this person, all the time concentrating on making primary contact with the selected body part. At the end of thirty-five seconds the bell would ring twice, signalling the end of the period. At that point, each of the two receivers entered on their questionnaire whether or not they felt they were being communicated with, and how sure they were of this answer. Fifteen seconds after the trial ended, they were told through a speaker system which person the group was in fact sending to. Following a further fifteen second rest period, the next feedback trial began, and

when that was completed, the third one took place in a similar fashion. At the end of each trial (as signalled on the tape), the experimenter removed the name sheet from the center of the group. At the beginning of the next trial he replaced it with the appropriate sheet.

Once the feedback portion of the experiment was complete, seven more thirty-five second trials took place, with twenty-five second rest periods in between. In each, just as in the practice trials, the experimenter pulled the target sheet a little more out of its envelope just before each trial, revealing to him or her alone the assigned recipient for the next thirty-five seconds, indicating whose name sheet (A's, B's, or SELF) should be placed in the center of the group. When all trials for the first two persons were ended, they completed their questionnaires, copied their responses onto the short response form, and then returned the sealed questionnaire to the experimenter as they rejoined the group. At this point, participants were encouraged to stretch and walk around a bit, but with no talking permitted, as this would have detracted from the general mood. Then all subjects were regrouped in a circle and a tape recorded message asked them to place themselves in a receptive state once more and to sense the interconnections between themselves and others in the group. After a minute of this, the next two receivers (2A and 2B) were given copies of the recipient questionnaire and directed to the separate

receiving rooms, where they were seated in a comfortable position, as the first two persons had been. The remainder of the experimental cycle was then run through as before--three practice and then seven test trials. After another stretch period and regrouping, the final two subjects had their opportunity to receive the positive group communications. At the end, when they returned to the group, all persons were given feedback about the exact pattern of communication. A discussion of their experiences and a briefing on the other experimental conditions followed. Any final questions were answered, and they were cautioned against taking the results (whatever they were) of so brief a session too seriously, thus concluding the meetings.

Participants in condition III (three friends) went through the same procedure except that only two experimental test cycles were run--the first with those persons drawing 1A and 1B as percipients, and the second with 1A and 2B receiving. Although person 1A served as a recipient in both sets of trials, only the first set was counted for scoring purposes. This yielded a total of 21 experimental timed trials for each condition III session (compared with 42 in standard condition I and II sessions). Similarly, when there were only five persons present in the larger groups, person 1A became a percipient again in the third sub-session, but his second set of scores was not counted.

Another point worth emphasizing is that there was no

talking during the trial periods--all instructions and timing intervals were pre-recorded on tape and played via extension speakers to the central group and to the pair of percipients. Both body parts and percipient names were indicated to the group silently, through the use of the body part and name sheets. This helped to eliminate any possibility of subjects getting impressions through the usual sensory channels.

A summary of an entire experimental session, with approximate times, is as follows:

procedural element	approximate time
Settle down, pre-session questionnaire, begin experimenter questionnaire	5 minutes
Crayon name sheets	2 minutes
General talk and answer questions	12 minutes
Sharing of individual experiences	20 minutes
Detailed description of procedure and answer questions (included showing everyone the two receiving rooms)	10 minutes
Choosing recipient codes from folded pile	1 minute
Induction-relaxation tape	40 minutes
Sub-session 1--two persons leave room and those remaining transmit positive feelings for three practice and seven test trials of 35 seconds apiece (according to random target schedule)	15 minutes
Regrouping--stretching and feeling group connections again	5 minutes

(continued on next page)

procedural element	approximate time
Sub-session 2--next two persons become percipients, leaving central group	15 minutes
Regrouping	5 minutes
Sub-session 3--final two percipients leave (in six-person groups only)	15 minutes
Review results and exit discussion	15 minutes
	2½ hours

Scoring

The pre-session questionnaires, target sheets, name sheets, and sealed trial questionnaires were all delivered to the author after each session. The envelopes remained unopened until all the experimental sessions had been run, at which time the data were transferred from the individual questionnaires and other pages to the Individual Scoring Sheets (Appendix J). These included a record of whether the subject was or was not the target on each trial, the target body part, and the subjects' perceptions and assurance ratings (on scales of 1 to 7) for all trials. Also recorded were the subjects' answers to questions involving psychic attitudes and practice, eating prior to the session, mood, experienced closeness to the group, dominant breathing pattern, and their preferred target aspect (timed trials vs. body part). With two exceptions, the ratings on the mood and closeness dimensions were taken simply as the digit checked by the experimenters and subjects on the appropriate

scales. The subjects' closeness ratings during the sessions was the first exception. These were derived by combining responses to the two questions about feelings of merging with the group which were answered when they left the group to receive impressions. Similarly, the "state" of the experimenter at the beginning of each session was obtained by adding their responses from the 7-point mood scale to their responses on the 7-point energy level scale; using either one individually did not give a broad enough range for meaningful comparisons to be made.

The correctness of the trial responses was determined and also recorded on the scoring sheets. Finally, a deviation-from-chance score was calculated for: 1) the timed trials alone, 2) the body party trial alone, 3) timed and body part trials combined, and 4) high assurance trials (those which the subjects rated 5 or above on the 7-point assurances scales). This score was derived by adding together the deviation scores from each of the trials, as outlined in the table on the next page.

TABLE 1

Individual Trial Deviation Scores

For each timed trial

Was subject the target?	Subject's response	Chance probability of being correct	This trial's deviation from chance
Yes	Yes	1/3	+2/3
Yes	No	2/3	-2/3
No	Yes	1/3	-1/3
No	No	2/3	+1/3

For the body part trial

Chance probability of choosing correct body part = 1/3

Therefore, if subject is correct, deviation from chance is +2/3

if subject is incorrect, deviation from chance is -1/3

The total deviation scores, as well as all the coding, were checked independently by a second person, with any inconsistencies corrected. The data for all participants in each group were then transferred in summary form to a group scoring sheet, along with experimenter mood, energy state, and group cohesiveness impressions for that session. Group deviation-from-chance scores were taken as the sum of scores of the group's members. One other measure of each group's success was then calculated--its signal detection score.

Scoring by this method factors out contributions toward hit rates due to response biases, yielding an index which is a function of the group's sensitivity and the magnitude of the signal. This index, d', was obtained by subtracting the z score corresponding to the proportion of false affirmatives ("yes" when subject wasn't the target) from the z score corresponding to hits ("yes" when subject was the target). It represents the difference in sensitivity to the signal and underlying noise distributions. (For a complete summary of signal detection theory, see either Clark [1969] or Kling and Riggs [1971].) This statistic was not calculated for individual subjects, since there were not enough data points to make that meaningful. In addition, since it is based on binary data, it does not include body part scoring.

IV

RESULTS

Background Influences

Before any inter-condition differences can be assessed, it must be determined whether the levels of background influences were similar across conditions. Table 2 summarizes scores of a number of factors thought to be related to psi receptivity.

TABLE 2

Summary of Background Factors

Factor	Experimental Condition I 10 Groups of friends	II 10 Groups of strangers	III 10 Sets of friendly individuals
Total number of "goats"	0	0	0
Number of subjects who practiced ESP often or regularly	4	5	1
Number of subjects who ate within 2 hours of session	34	20	10
Average pre-session mood rating (1 elated to 7 low)	3.3	3.5	3.4
Average pre-session closeness rating (1 not close to 7 close)	5.7	3.2	6.2
Average session closeness rating (2 not close to 14 closest)	9.1	7.9	9.3
Experimenter's average mood (1 elated to 7 low)	3.7	3.3	3.1
Experimenter's average energy state (1 awake to 7 tired)	3.2	3.1	3.2
Experimenter's average closeness rating (1 not close to 7 close)	5.4	2.5	5.4
Total Number of Subjects	60	56	30

It can be seen that no persons in any of the conditions answered the question about their belief in psychic ommunication in such a way that they would be classified as "goats", or non-believers. This was as expected--all subjects were volunteering a full evening of their time and had expressed a personal interest in the study. Only a small number of persons reported practicing telepathic communication regularly, and there is no significant difference between conditions on this dimension. There was, however, a sizable difference in the number of persons who had eaten shortly before the sessions (χ^2=6.86; $p < .05$, 2 d.f.): a larger percentage of those in condition I (groups of six friends) than in either of the other conditions reported doing so. The effect of this difference would presumably be to operate against the main hypothesis, making the study an even more conservative one than had been planned.

The next items reported in Table 2 are three differenct measures of group cohesiveness. The point in question is whether the assignment of groups to the three conditions was actually reflected by appropriate differences in closeness ratings. It is clear that participants' and experimenters' pre-session closeness ratings both show the expected pattern: groups in conditions I and III rated almost equally close, and both rated markedly closer than groups in condition II. The range of closeness self-ratings for stranger groups was 2.8 to 4.2 and for the other two conditions the range was 4.6 to 7.0. Nor were experimenter ratings for any group in condition II higher than those for any of the "known" groups.

The pattern of participants' closeness ratings during the sessions was similar, though not quite as clear. The smaller differences on this scale between condition II groups and the others were still significant (t_{I-II} =3.34, 9 d.f., $p < .01$; t_{III-II} =2.57, 9 d.f., $p < .05$), but evidently the induction had helped to blur those distinctions.

Numerous studies have linked subject and experimenter mood and attitudes with psychic success, so questions relating to these factors were included to check on whether there was any confounding of the experimental variables. Average mood ratings of subjects in each condition were virtually identical, as were experimenters' ratings of their own energy states, but experimenter mood was somewhat lower in condition I groups than in either of the other classifications (higher numbers signified a more negative mood), though not significantly so ($p < .15$). Again, any influence of this factor would presumably be in a direction antithetical to the primary hypotheses; the groups expected to do best may have been burdened by experimenters in relatively poor moods.

In summary, the participants did indeed experience their groups according to the a priori classifications. Most background factors displayed no differences acrosss conditions, and what differences there were would be expected to operate counter to the major hypotheses.

Scoring and Hypothesis Testing

1) Group comparisons

Total scoring for each type of group is summarized in

Table 3. (Separate tabulations revealed no significant scoring differences between subjects participating under the direction of different experimenters.) The summary figures presented in this table were not used directly in any statistical tests, but are shown to give an overall view of the scoring pattern. Note that the "Total" column includes figures from the six groups discarded from the primary analyses. For both the timed and body part trials, it can be seen that there was a trend toward higher scoring for the friendly groups than for either the groups of strangers or the friendly individuals, with the latter two conditions scoring approximately at chance level. Also evident from this table is the fact that overall, deviation scores for the timed trials appear better than body part deviation scores. Note too that in each condition and overall, there was a marked bias toward responding "yes" more often than on 1/3 of the trials.

Table 4 is a tabulation of scoring for each of the 30 groups, again showing the breakdown between body part and timed trial deviation scores. Histograms of total deviation scoring for all individuals in the three conditions are drawn in Figure 1. These show the frequency of deviation scores in condition I to be skewed in a positive direction, while scores in both conditions II and III are skewed slightly in a negative direction. Standard deviations of the means were estimated by dividing the standard deviation of the individual scores by $\sqrt{n}$, n being the number of subjects (and scores) in each condition.

TABLE 3

Scores of All Subjects for Timed Trials and Body Part Trials

Trials and Responses	Chance probability	Experimental Condition: I Groups of friends 60 Ss		II Groups of strangers 56 Ss		III Friendly individuals, 30 Ss		Other (6 groups) 26 Ss		Total 172 Ss	
		# Rs	△	# Rs	△	# Rs	△	# Rs	△	# Rs	△
Timed trials											
Group sending to percipient											
Response correct ("yes")	1/3	63	+42.00	56	+37.33	28	+18.67	32	+21.33	179	+119.33
Response incorrect ("no")	2/3	75	-50.00	69	-46.00	41	-27.33	37	-24.67	222	-148.00
Group not sending to percipient											
Response correct ("no")	2/3	173	+57.67	143	+47.67	85	+28.33	69	+23.00	470	+156.67
Response incorrect ("yes")	1/3	105	-35.00	121	-40.33	56	-18.67	44	-14.67	326	-108.67
Total, Timed trials		416	+14.67	389	- 1.33	210	+ 1.00	182	+ 5.00	1197	+ 19.33
Body part trials											
Percipient correct	1/3	23	+15.33	16	+10.67	5	+ 3.33	10	+ 6.67	54	+ 36.00
Percipient incorrect	2/3	36	-12.00	40	-13.33	24	- 8.00	16	- 5.33	116	- 38.67
Total, Body part trials		59	+ 3.33	56	- 2.67	29	- 4.67	26	+ 1.33	170	- 2.67
Total, all trials		475	+18.00	445	- 4.00	239	- 3.67	208	+ 6.33	1367	+ 16.67

table abbreviations:

Rs are the responses in each category

△ is the contribution to deviation from chance score for each category

TABLE 4

Deviation from Mean Chance Expectation for Each Group

(groups listed in ranked order)

	I-Groups of Friends					II-Groups of Strangers					III-Friendly Individuals				
Rank	Group #	# Ss	Timed Trials	Body Part Trials	TOTAL SCORE	Group #	# Ss	Timed Trials	Body Part Trials	TOTAL SCORE	Group #	# Ss	Timed Trials	Body Part Trials	TOTAL SCORE
1	I-7*	6	10.33	1.00	11.33	II-2	6	6.33	0	6.33	III-4*	3	3.67	-1.00	2.67
2	I-4*	6	8.00	-2.00	6.00	II-13	6	1.00	0	1.00	III-11	3	3.33	-.67	2.67
3	I-6*	6	2.33	3.00	5.33	II-4	6	0	1.00	1.00	III-8*	3	2.33	-1.00	1.33
4	I-3*	8	5.00	-.67	4.33	II-6	5	1.33	-.67	.67	III-1	3	1.00	-1.00	0
5	I-2*	6	-.67	1.00	.33	II-12	5	1.00	-.67	.33	III-2*	3	1.00	-1.00	0
6	I-11	6	-1.00	1.33	.33	II-11	5	0	-.67	-.67	III-10	3	0	0	0
7	I-1	5	-.67	.33	-.33	II-5	6	-1.33	0	-1.33	III-5	3	0	0	0
8	I-10	6	-2.33	2.00	-.33	II-10	6	-.67	-1.00	-1.67	III-6	3	-3.00	2.00	-1.00
9	I-8	5	-2.67	-.67	-3.33	II-9	5	-2.33	-.67	-3.00	III-7	3	-3.00	-1.00	-4.00
10	I-5*	6	-3.67	-2.00	-5.67	II-8	6	-6.67	0	-6.67	III-3*	3	-4.33	-1.00	-5.33
Total Deviation from Chance		60	+14.67	+3.33	+18.00		56	-1.33	-2.67	-4.00		30	+1.00	-4.67	-3.67

* signifies those groups classified as "extra-close"

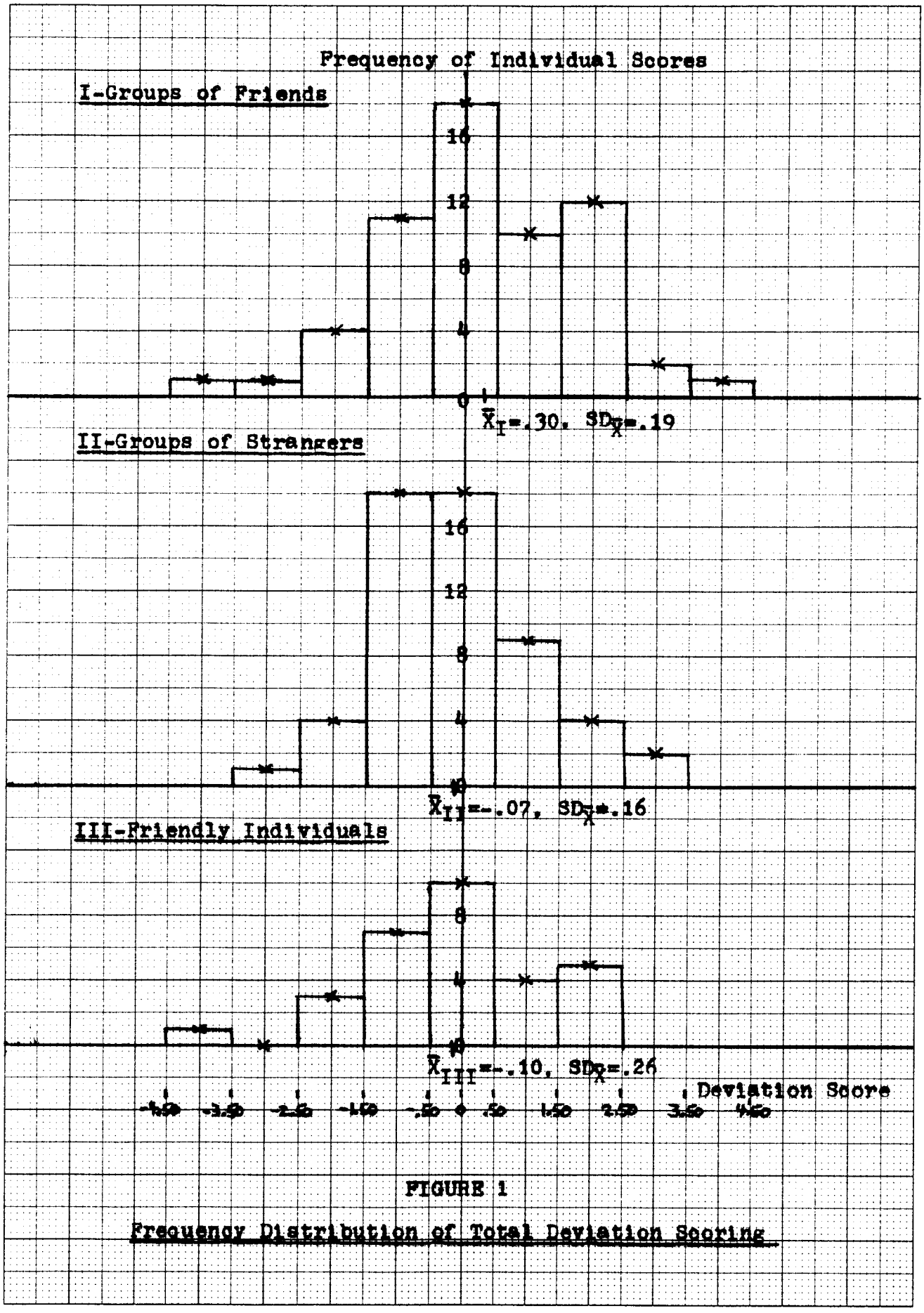


FIGURE 1

Frequency Distribution of Total Deviation Scoring

Critical ratios based on the individual subjects' total deviation scores show that none of the three comparisons made attained the .05 significance level. The trend of the data, though, support the hypothesized differences, that scoring in condition I would be better than in condition II (C.R.=1.49, 1-tailed $p < .07$, 2-tailed $p < .14$), better than in condition III (C.R.=1.34, 1-tailed $p < .09$, 2-tailed $p < .18$), and better than chance (C.R.=1.58, 1-tailed $p < .06$, 2-tailed $p < .11$).

The trial-based critical ratio comparing condition I scores vs. chance expectation yielded a somewhat stronger result (C.R.=1.75, 1-tailed $p < .05$). This statistic, based on the exact binomial probability per trial, appears to be the more appropriate one for this comparison, though the above subject-based calculations are more apropos for the inter-group comparisons. Therefore, one of the three overall scoring hypotheses is marginally accepted and the other two rejected at the predetermined significance level.

As discussed in the previous chapter, d''s, signal detection sensitivities, were also calculated for each group. These are listed in Table 5. Note that though the friendly groups still demonstrate a tendency toward overall scoring superiority, the differences appear less clear than when the deviation scores were compared. Possibly this is because they take into account only the timed trials portion of any scoring differences, or because there were many fewer data points used. Critical ratios based on these group signal detection scores are as follows: condition I vs. condition II

TABLE 5

Signal Detection Scores, Ranked by Group
(d', measure of sensitivity)

	Experimental Condition					
	I, Groups of friends		II, Groups of strangers		III, Friendly individuals	
Rank	group #	d'	group #	d'	group #	d'
1	I-4 *	1.61	II-2	.85	III-11	1.16
2	I-7 *	1.52	II-6	.24	III-4 *	.80
3	I-3 *	.59	II-12	.18	III-8 *	.62
4	I-6 *	.32	II-13	.15	III-1	.35
5	I-2 *	-.13	II-4	.03	III-2 *	.25
6	I-1	-.14	II-11	.01	III-5	.07
7	I-11	-.16	II-10	-.12	III-10	0
8	I-10	-.17	II-5	-.26	III-6	-.76
9	I-8	-.44	II-8	-.76	III-7	-.86
10	I-5 *	-.48	II-9	-.91	III-3 *	-1.17
Mean		.252		-.059		.046
Standard Deviation of Mean		.229		.151		.229

* signifies those groups classified as "extra-close"

C.R. =1.14 (1-tailed $p < .13$, 2-tailed $p < .25$), condition I vs. condition III C.R.=.64 (1-tailed $p < .27$, 2-tailed $p < .53$), condition I vs. chance C.R.=1.10 (1-tailed $p < .14$, 2-tailed $p < .28$).

With the major hypotheses failing to be substantially confirmed, the question arose whether a stronger contrast between types of groups would yield significant differences. Perhaps, though persons in condition I and III sessions all knew other participants quite well, the relationships still weren't intense enough to generate the effects being investigated. Possibly interpersonal barriers had to be exceedingly low for this type of subtle communication to evidence itself in just one session. The questions and scales on group closeness were too gross to provide any further insight into this question. One additional factor which could be considered, though, was the frequency of contact among persons in the familiar conditions. Assumedly, if the original discussion of group cohesion and levels of communication had any validity, then persons with more intense contact with one another should share a more total range of communication if they were open to that, as friends would be. Though frequency of contact is only one possible measure of intensity, it was the only additional one readily available for analysis. As outlined in the Methods chapter, the twenty familiar groups had been divided into those composed of people who either lived or worked together and those composed of persons with less frequent meetings (generally about once a week). The "extra-

close" groups are so indicated in Tables 4 and 5. The same type of group comparisons as those made earlier were calculated, but this time, for condition I', n was 38 rather than 60 subjects and the total deviation score was +21.67. For condition III', n was 12 instead of 30, and the deviation score -1.33. The results can be seen in Table 6 below.

TABLE 6

"Extra-Close" Group Comparisons

Type of Score	Statistic or Test	Comparison: Extra-Close Groups vs. Groups of Strangers	Comparison: Extra-Close Groups vs. Extra-Close Individuals	Comparison: Extra-Close Groups vs. CHANCE
Trial-based total deviation scores ($N_{I'}$=301)	C.R.	---	---	2.65
	1-tailed	---	---	$p < .005$
	2-tailed	---	---	$p < .01$
Subject-based total deviation scores ($N_{I'}$=38, N_{II}=56, $N_{III'}$=12)	C.R.	2.21	1.26	2.38
	1-tailed	$p < .02$	$p < .11$	$p < .01$
	2-tailed	$p < .03$	$p < .21$	$p < .02$
Group-based signal detection scores d' ($N_{I'}$=6, N_{II}=10, $N_{III'}$=4)	C.R.	1.79	.89	1.80
	1-tailed	$p < .04$	$p < .19$	$p < .04$
	2-tailed	$p < .08$	$p < .38$	$p < .08$

Once again, the comparison between the familiar groups of six and of three (individual sender condition) show no significant differences, though a trend is still in the predicted direction. However, comparison of this subsample of friendly groups of six with the full stranger group sample does yield a significant difference, as does the comparison against chance expectation. It seems that making this stricter definition of what constitutes a close group allowed the

hypothesized differences to be manifested. It also seems to support my pre-experimental view that the present set-up, with just one session per group, would only be favorable to extra-chance performance for the large groups of friends.

2) Correlations

The relationships between scoring and other variables were put in terms of correlation coefficients, first in Table 7 for individual scores, and then in Table 8 for group scores. In those cases where the scales were inverted, that is, a lower score actually signified a higher value of that dimension (for example, the mood scale), the signs of the correlations were adjusted so that the values in the tables correspond to real rather than to scalar relationships. In the first correlation table, individuals' deviation scores are shown to be unrelated to their own ratings of closeness or mood. Significant positive relationships are demonstrated, however, between the pre-session and session closeness self-ratings and between each of those scales and the subjects' self-rated mood at the start of the sessions. Results in Table 8 paint a slightly different picture. Here, both group deviation scores and group signal detection scores have been included, and the subjects' closeness ratings used were the averages for each group, since what was of interest was the total gestalt of how members felt about one another. In addition, two experimenter variables are included: their closeness ratings of each group, and their "state" at the beginning of each session. As expected, the two scoring measures

TABLE 7

Correlations of Individual ESP Scores with Self-Reports of Closeness and Mood

	Closeness Ratings		Mood
	Pre-session	During session	
Condition I (Groups of Friends), n=60			
Total deviation score	.20	-.08	-.01
Pre-session closeness	--	.10	.34**
Session closeness	--	--	.28*
Condition II (Groups of Strangers), n=56			
Total deviation score	.09	-.07	.11
Pre-session closeness	--	.34**	.46**
Session closeness	--	--	.29*
Condition III (Individual Friends), n=30			
Total deviation score	-.33	.10	-.32
Pre-session closeness	--	.06	.07
Session closeness	--	--	.11
All Subjects, n=172			
Total deviation score	.13	.00	-.02
Pre-session closeness	--	.33**	.25**
Session closeness	--	--	.25**

* $p < .05$
** $p < .01$

TABLE 8

Correlations of Group ESP Scores with Closeness and State Ratings

	Signal detection score	Closeness Ratings by E	Closeness Ratings average of Ss, pre-session	Closeness Ratings average of Ss, in session	Es state
Condition I, n=10 groups:					
Total deviation score	.90**	.20	.38	.35	.76*
Signal detection score	--	.35	.40	.16	.76*
Closeness, by E		--	.64*	.35	.30
Pre-session closeness			--	.32	.38
Session closeness				--	.08
Condition II, n=10 groups:					
Total deviation score	.92**	.45	-.02	-.04	.66*
Signal detection score	--	.19	.16	.18	.49
Closeness, by E		--	.05	-.24	.44
Pre-session closeness			--	.73*	.48
Session closeness				--	.34
Condition III, n=10 groups:					
Total deviation score	.94**	.09	-.17	.18	.26
Signal detection score	--	-.02	-.14	-.04	.06
Closeness, by E		--	.32	.00	.17
Pre-session closeness			--	-.29	.02
Session closeness				--	.54
All groups combined, n=36 groups:					
Total deviation score	.88**	.21	.15	.10	.36*
Signal detection score	--	.19	.19	.06	.24
Closeness, by E		--	.83**	.35*	.05
Pre-session closeness			--	.41*	.03
Session closeness				--	.06

* $p < .05$
** $p < .01$

correlated very highly with one another. The only other variable with which they demonstrated a sizable relationship was experimenter state. This relationship achieved overall significance and was especially strong for the two larger group conditions (I and II). Thus, experimenter mood and energy level emerged as a prime factor involved in ESP success.

Scoring in the groups of friends (condition I) correlated more strongly with the closeness ratings than did scoring in the other types of groups, but still fell short of statistical significance. The intercorrelations among the three cohesiveness measures were all significant, and it was especially strong between subject and experimenter pre-session ratings. The figures seem to indicate, though, that the later closeness rating, obtained during the sessions, was actually tapping a somewhat different dimension than the two earlier ones.

3) Body part scoring

Inspection of Table 3 refutes the hypothesis that body part scoring would be superior to timed trial scoring. Only in condition I was it even insignificantly better (deviation from chance of .056/trial vs. .035/trial). Detailed body part scoring patterns are outlined in Table 9. The boxes where target and response are the same represent correct choices. The figures in this table indicate several noteworthy points. First, though the overall a posteriori probability of each body part being chosen actually came close to

TABLE 9

Body Part Scoring Patterns
(number of responses in each category)

I-Groups of friends (10 groups)

Target	Response: head	heart	navel	Total
head	12	8	2	22
heart	8	7	7	22
navel	5	6	4	15
Total	25	21	13	59

II-Groups of strangers (10 groups)

Target	Response: head	heart	navel	Total
head	7	12	7	26
heart	3	6	4	13
navel	9	5	3	17
Total	19	23	14	56

III-Friendly individuals (10 groups)

Target	Response: head	heart	navel	Total
head	3	-	-	3
heart	9	1	3	13
navel	10	2	1	13
Total	22	3	4	29

Total, all subjects combined (36 groups)

Target	Response: head	heart	navel	Total
head	24	21	9	54
heart	27	21	14	62
navel	28	17	9	54
Total	79	59	32	170

1/3, that probability varied greatly across conditions, especially in condition III, where the a posteriori probability of "head" being chosen was only 3/29. Secondly, there was an overall bias toward choosing "head" as the perceived body part, especially so in condition III again. The interplay of these two factors might mean that subjects in the individual sending condition were overpenalized for incorrect body part choices. It appears that low body part scoring in condition III may have been due to this chance factor.

4) Assurance trial scoring

Table 10 is a summary of assurance score figures contrasted with the regular deviation scores already reported above. Assurance trials as originally defined were those on which subjects checked 5,6, or 7 on a scale from 1 ("very unsure" of their answer) to 7 ("very sure"). If a person checked the same number for all trials, the data were not included in this tabulation, the supposition being that they weren't making distinctions between strengths of impressions on different trials, not distinguishing high from low assuredness. The table also includes two more stringent definitions of assurance trials--first counting trials rated 6 or 7, and finally, just those rated 7. Perhaps, it was thought, scoring would improve with increasing feelings of assurance.

High assurance trial scoring, though, (by any definition) was not significantly superior to regular scoring for any class of trials. For the timed trials, there was an overall trend for scoring to improve with the first two assurance definitions, then to drop off markedly when only the 7s were

TABLE 10

Assurance Scoring

Experimental Condition	Type of Scoring	Timed Trials		Body Part Trials		Total Trials	
		n	Δ/n	n	Δ/n	n	Δ/n
I	regular	416	+.035	59	+.056	475	+.038
Groups	5,6,7	200	+.033	33	0	233	+.028
of	6,7	130	+.064	22	+.030	152	+.059
Friends	7	53	+.006	10	+.067	63	+.016
II	regular	389	-.003	56	-.047	445	-.008
Groups	5,6,7	155	-.008	24	0	179	-.007
of	6,7	91	0	16	-.020	107	-.003
Strangers	7	32	-.147	8	-.209	40	-.192
III	regular	210	+.004	29	-.161	239	-.015
Friendly	5,6,7	109	+.067	22	-.151	131	+.030
Individuals	6,7	66	+.060	17	-.157	83	+.016
	7	28	+.060	8	-.209	36	0
TOTAL	regular	1197	+.016	170	-.015	1367	+.012
All	5,6,7	536	+.029	93	-.064	629	+.015
Subjects (includes S^s not in I, II, or III)	6,7	324	+.045	60	-.066	384	+.027
	7	125	-.032	27	-.111	152	-.046

table abbreviations:
n is the number of trials in each category
Δ/n is the (average) deviation from chance score per trial

considered. The trend for body part trials was somewhat different: scoring decreased with higher assurance ratings. The data also seem to indicate that any beneficial effects of assurance scoring were confined to the persons who knew one another (conditions I and III), despite the fact that those persons had a larger percentage of their trials rated as sure ones than the strangers did.

5) Reported breathing patterns

A significantly larger proportion of subjects reported breathing through their left nostril than through their right nostril ($\chi^2 = 4.76$, 1 d.f., $p < .05$): 83 left breathers vs. 48 right breathers. The total deviation from chance score for left breathers was +5.00, and for right breathers +14.00, a non-significant difference, so overall scoring was clearly not better for those reporting left nostril breathing (as had been hypothesized). Left-right scoring differences within each condition and for each of the two types of trials were likewise insignificant. The fact that more persons reported left breathing (if their reports are taken as generally accurate) was very possibly a function of the relaxation induction procedure putting them in a more receptive state, as expected. Apparently, though, this did not aid their scoring.

6) Preferred target aspect

Subjects were asked "Which aspect of the communication did you prefer to receive?", and they reported either "body part", "regular trials", or "both". A number of them had

trouble understanding what was being asked for, since both forms of communication were being sent at the same time. Eighty-two of them did indicate a preference, however, and for these, deviation scores were tabulated for both "preferred" and "non-preferred" aspects. The total figures, as well as the figures within each condition, revealed no differences in scoring between the two (see Table 11). This appears to violate the findings of previous research concerning the "differential effect". The most likely explanation is that the two aspects were integrated with one another, not independent and separate tests, so clear distinctions couldn't be made.

TABLE 11

Deviation Scores for Preferred vs. Non-preferred Target Aspects

Experimental Condition	Preferred Aspect Score	Non-preferred Aspect Score
I-Groups of Friends	+.33	+5.67
II-Groups of Strangers	-.67	- .67
III-Friendly Individuals	+.67	-2.33
Total, All Groups (includes those not in I,II,orIII)	0	+7.33

7) Target frequency effect

Persons hypothesized to score better on body part trials, those who were the target on three or more of the seven timed trials, chose the correct part on 25 of 73 body part trials. Those who were the target fewer than three times were correct 29 of 97 times. Thus, there was only a miniscule trend in

the hypothesized direction, certainly not a significant difference. Examination of the actual pattern of correctness as a function of target frequency, shown below in Table 12, reveals the same suggestive trend, but no significant pattern.

TABLE 12

Body Part Correctness as a Function of (Timed Trial) Target Frequency

# of times S was the target in the series of 7 timed trials	Body Part Correctness		
	# S^S Correct	# S^S Incorrect	% of S^S Correct
0	2	7	22%
1	10	29	26%
2	17	34	33%
3	15	23	39%
4	6	19	24%
5	4	5	44%
6	0	1	0%
7	-	-	-

8) Early vs. late timed trials

Table 13 summarizes subjects' early vs. late timed trial scoring in each condition and overall. For this comparison, only in condition II was a trend evidenced, in the hypothesized direction of poorer scoring in the later trials, what has generally been termed the "decline effect". Statistics performed on this difference, though, failed to achieve significance (matched $t = 1.74$, $d.f. = 57$, $p < .10$). It is possible that those in condition II, who were strangers to one another,

were less likely to maintain 1) contact with the group over the full set of trials, 2) confidence that such contact could take place, or 3) interest in the experiment.

TABLE 13

Scoring Differences Between First Four and Last Three Timed Trials

Experimental Condition	Total Deviation Score for First 4 Trials	Total Deviation Score for Last 3 Trials
I-Groups of Friends	+8.00	+6.67
II-Groups of Strangers	+7.00	-8.33
III-Individual Friends	+1.67	- .67
Total, All Groups (includes S^s not in I, II, or III)	+17.67	+1.67

Supplementary Analyses

1) Sub-session order effects

Many ESP studies in the past have noted the decline effect, decreasing performance levels as experimental sessions continue. It's already been noted that such an effect was not strongly evidenced within each subject's trials (subsection 8, above). A post-hoc analysis was made to determine if such an effect was present in this study between subjects receiving in the two or three different cycles of each session. The pattern discerned, however, within each condition and across all conditions, was just the opposite: total deviation scoring for all first sub-session subjects combined was -8.00, for the second, +14.00, and for the third, +9.67.

For all conditions combined (as reflected in these figures), the critical ratio of later (second and third cycle) vs. first cycle scoring reached 1.67 ($p < .10$), still only suggestive. The pattern within each condition was even weaker. If this trend is accepted (and this must be done very tentatively, given the number of statistical comparisons made to this point), it could be attributable to one or all of several factors: 1) the experiment was engaging enough to maintain the participants' interest throughout, 2) later subjects had a chance to sit through the full procedure at least once and were thus more familiar with the mechanics and probabilities involved, and 3) later subjects were generally more comfortable--the music and other elements of the situation had a cumulative positive effect.

2) Intrasubject high vs. low assurance scoring

The impression recording procedure allowed subjects to make any number of high assurance calls, possibly with detrimental effects on their discriminative abilities. In an effort to overcome this and to get at the actual discriminations being made, in this analysis, comparison was made between each subject's highest assurance trials and lowest assurance ones, whatever the actual (7-point) scale ratings were. For instance, if a person rated assuredness on the trials as either 1's or 2's, the trials marked 2 were counted as high assurance and those marked 1 as low assurance. On the other hand, for a different subject marking all 6's and 7's, the trials marked 7 were considered high assurance

and the 6's as low assurance. As in the prior assurance data analysis, if all trials were marked with the same assurance score, these data weren't counted here. This modified assurance score analysis yielded a non-significant difference (C.R.= 1.39, 1 tailed $p<.09$) between high and low assurance scoring. The average high assurance deviation-from-chance score was +.035/timed trial, and the average low assurance score was -.018/timed trial. The total high assurance score for all subjects combined was 11.67, while the low assurance total score was -5.00.

3) Mode of impression perception

An open-ended question at the end of the session questionnaire asked participants to state how they sensed impressions. Their answers fit relatively easily into one of several categories. A large majority relied on bodily sensations of one form or another, a large minority received their impressions through visualizations in their minds, and a smaller number experienced either both of these modes together or another form completely, such as through an "illusive presence". For each of these categories, the following tabulation was made, of persons scoring above or below chance expectation (Table 14). The heavy bias toward bodily sensation impressions shown by these data prevents any conclusions being drawn about relative success rates. However, the bias suggests that the focus on body parts during the transmission might have overly influenced subjects to try to receive in that way, thereby masking their inherent (and possibly more

accurate) means of telepathic perception.

TABLE 14

Scoring as a Function of Mode of Impression

Scoring	Type of Impression			
	Bodily Sensation	Visual-ization	Bod. Sens. & Vislztn.	Other
# S^S above chance	34	10	6	6
# S^S below chance	45	8	2	3

4) Majority vote scoring

Several past studies have obtained scoring success using the majority vote technique, taking as the scored response the one recorded by the majority of a small group of percipients (Brier & Tyminski, 1971). In the present study, the clearest instance of a trial on which concurring opinions by the two percipients would both be rewarded was in their choice of body part. Obviously, a "majority" in this case would only occur when they both chose the same part. Table 15 compares the number of correct and incorrect choices made when subjects receiving at the same time (in separate rooms) chose the same part. It can be seen that overall success for this type of score was still at the same chance level as regular body part scoring. What might be worth noting, though, is that 32 of 60 pairs of receivers who knew one another chose the same body part, as contrasted with only 12 of 34 pairs of strangers. This suggestive difference ($\chi^2=2.84$, 1 d.f., $p < .10$) could be indicative of an unconscious communications link between the two familiar percipients.

TABLE 15

Majority Vote Body Part Choices

Experimental Condition	Number of pairs in each category	
	Correct	Incorrect
I (n=31 possible pairs)	6	9
II (n=30)	3	6
III (n=21)	2	7
All groups (n=94)	15	29

V

DISCUSSION

None of the initial hypotheses were confirmed at the .05 level of significance. Nevertheless, trends tended to support the original line of thinking, and the additional analysis of "extra-close" groups did yield significance. Despite the fact that the data do not justify unequivocal rejection of the null hypothesis, I am placing some credence on the trends obtained because I agree with Zenhausen (1974) that at this time it is important to "detect theoretically meaningful effects even if they are weak." My purpose here is not to argue the issue of telepathy in general, nor to offer hypothetical models to explain its occurrence--others (e.g. Krippner, 1974) have done so elsewhere. Nor is a discussion of the full range of personal and social implications of telepathic communication within the range of this paper. Rather, I will accept the demonstration of telepathy by prior research and will attempt to elucidate the clues this study has generated towards understanding several factors which may enhance such effects.

General Conduct of the Sessions

For the most part, sessions ran smoothly, with occasional noise interference from outside, and several tape malfunctions. My own perception of the instructional tape (and of the entire session) was that it sounded too sombre and experimentally-oriented, that it could have been livelier. There were no complaints along these lines, but several participants did complain that the Indian music was unpleasant or that the induction seemed too drawn out and interfered with their own relaxation processes. However, most subjects expressed appreciation for both these tapes. Given variations in personal taste, acceptance of the procedure was very good. Maybe future work could allow subjects to choose from among a number of background music and induction tapes those most suited to their own personal tastes.

The majority of subjects found it easier to send than to receive, but that may be more a function of the common mode of communication in this society than of their real ability to "transmit" non-verbal non-proximic signals. That is, this preference may simply have been a reflection of people's propensity to talk to others rather than to listen quietly to them; just because they found it relatively simple to send doesn't necessarily mean that they did it properly. Some participants expressed difficulty with having to switch between sending and receiving roles, while others found the change energizing. There were those who felt the trials were too abbreviated and often, who felt rushed, while others got their impressions as soon as the beginning signal rang and

felt that the allotted time period gave them too much time to think and waver about their responses. On balance, then, the general pace of the study and the time periods for the trials seemed reasonable. In future studies, a stronger expectation set by the experimenter to the effect that subjects only need a very brief period to communicate in this way might very well eliminate their mental conceptions that a more extended time is needed. As Targ and Puthoff (1975) have just reported , the assumption on the part of experimenters that the desired effects can be produced easily does seem to abet their occurrence. In general, the influence of investigators on the outcome of parapsychological studies appears to be great, so it's probably wise to use this fact in a constructive way, using it to enhance the effects being examined.

Experimenter Effects

Some reflections on the course of my own mental state while this study was in progress might shed some light on the question of why greater contrasts didn't occur. Though excited by the project at its inception, the rigors of recruiting, scheduling, and conducting all the experimental sessions in just 2½ months took their toll on my outlook. All this activity added to my regular job created a very tight, hectic life, certainly not the frame of mind best suited to induce relaxation in others. Of course, I made every effort to relax a bit and unwind before each session, but still the underlying feverishness was there. I was happy when other experimenters

ran their sessions, though even then I had the responsibility of assisting in setting up the materials and debriefing participants. In short, as the study wore on, I became less concerned with any potential results and more concerned with just completing it and getting it over with. This pattern may not be unlike that undergone by other dissertation researchers, but I feel it was especially cogent in this case, since the phenomenon being explored was so subtle. I offer this (somewhat understated) account not as an apology, but as an additional factor to hang in the background as the reader peruses this work.

What makes my progressively deteriorating mood even more relevant is the fact that due to difficulties in scheduling suitable sites, only two groups in the first half of the study were made up of six persons who were friendly with one another (condition I), while five groups were made up of strangers (condition II), and eight were composed of three friends (condition III). Thus, a large majority of those groups expected to perform best were run later in the study, when I (and possibly other experimenters as well) was becoming quite weary. This trend was evidenced by the generally more negative mood self-ratings given by experimenters in condition I than in the other conditions. Couple this with the statistically significant correlation found between experimenter state and group scoring levels, and we have one reasonable explanation for smaller than expected inter-condition contrasts.

Experimenters had a clear role in each session, they did not participate in the general introductions and sharing of experiences, nor did they try to send impressions. Yet the results indicate that experimenter state was closely tied to telepathic success. Therefore, considering the person leading each group to be separate from the others may have been unrealistic. The experimenter effect tended to be stronger for the larger groups than for the smaller ones: the correlation between scoring and experimenter state was $r=.76$ in condition I and .66 in condition II (both significant at $p<.05$), but was only .26 in condition III (n.s.). This could be due to the scheduling differences cited above. Or perhaps the groupings of three friends had more clearly defined boundaries, less permeable to the inclusion of an experimenter as one of their own. Also, the connection they were trying to feel when they were receiving was with just one other person, while in the other conditions the receivers were asked to open themselves up to impressions from a whole group. Thus, subjects in the larger groups might have been more prone to allow unintended impressions from the experimenter to enter their consciousness. Another possibility is that the physical arrangement of persons in the central room either increased or decreased the relevance of the experimenter (and his mood) to the receiving persons. When there was only one individual sending, the experimenter sat opposite that participant, but when a group was sending, his position was more like that of another person in the circle. Maybe

this difference in the experimenter's physical relation to the larger and smaller configurations was reflected by a parallel difference in his psychical relationships with the participants. Whatever the proper explanation, his (or her) state appears to have interacted strongly with subjects' scoring levels in the larger groups.

The above discussion may serve to highlight an underlying assumption of this research project, that the relationships between participants are as important as the participants themselves (and any individual skills or characteristics they each may possess). The major hypotheses which I tested are of a relational nature, concerned with aggregate group performance rather than with individual differences. In hindsight, then, it seems silly for me to have underestimated the importance of the experimenter's relation to the subjects. As I conducted sessions throughout the study, it seemed to me that my (or any experimenter's) "vibrations" might enter into the experimental mix and help to determine what came out. There were a few occasions when I detected uneasy or hostile feelings within the groups--either intersubject or directed at myself. I decided to stick with the pre-ordained experimental procedure and ignore those perceptions of mine, for to do otherwise, I thought, would jeopardize the level of control established. Sometimes these feelings would become more evident and eventually surface in some explicit or disguised way: participants in one session started bickering with one another and then refused to continue; several persons expressed hostility towards me

in the debriefing at the end of their sessions; three of the four crayons broken in the course of the experiment were broken by subjects (as they wrote their names) I had already perceived as being hostile or excessively withdrawn; and the only time the induction tape broke was during a session in which one subject later admitted to great hostility directed at the sound of my tape recorded voice (another experimenter was present there). Often, however, any such feelings detected by myself or other experimenters never did come to the surface, but remained as a pent up reservoir of unexpressed emotions which possibly interfered with the telepathic communications. The point I wish to make here is that my rigid adherence to the experimental design may very well have made less sense than a more flexible procedure which allowed the experimenter to act on his or her subjective feedback with each group. In future studies of this sort I would recommend that the person leading the sessions at least record, and preferably focus on any potentially disruptive feelings within the group, bringing them to the fore so that a more harmonious feeling might be allowed to flow forth.

A recent article by Honorton, Ramsey, and Cabibbo (1975) also concluded that "performance in extrasensory perception tasks is differentially affected by positive and negative experimenter-subject interactions." This finding, of course, is not confined to ESP--Rosenthal for one has documented similar effects in more general psychological research. Due to the subtle nature of telepathic communications, though,

the experimenter effect seems to take on more dramatic proportions. The direction proposed by Honorton et. al. is to get around this factor by using "automated testing devices." At some point, however, an "experimenter" must come into contact with the subjects--ignoring this interaction doesn't lessen its effects. My proposal would be to acknowledge the operation of this variable and try to explicitly maximize its potential usefulness in ESP studies by having experimenters engage in positive interactions with subjects. If this doesn't happen, or if they don't feel they can work well together, then new subjects should be found, or perhaps a different experimenter could take over. I believe this would be a legitimate manipulation of the experimenter effect since it might serve to magnify otherwise weak manifestations of ESP phenomena, thereby making it easier to study the influence of other variables. Whether or not this is done, the experimenter effect could be studied further by having subjects answer a questionnaire concerning their attitudes towards the experimenter. In a group study like the present one, this could be done separately from other paper work, and anonymously, still providing useful data which could be related to the group's scoring level. Non-anonymous administration would present some obvious possibilities for bias, but still might provide information which would further elucidate the operation of this variable. As Anderson and White (1969) found, I'd expect any positive affective links with the experimenter to be reflected by increased motivation and openness to communication in his or

her presence.

In summary, experimenter state and subject-experimenter interactions appear to be crucial aspects of investigations into ESP (and any other subtle) phenomena, and should be explicitly recognized as such in the design of experiments. It is no wonder that ESP findings have been repeatedly upheld by believers of these events, while being unreplicated by their detractors. We should accept the hypothesis that experimenter state is a prime determinant of subject performance, that the experimenter is a participant in the study, and use this outlook in a constructive fashion.

Group Closeness

Though the groups of six friends scored suggestively better than chance, their performance was not significantly better than the groups of strangers until consideration was narrowed to those groups which had an extended degree of interpersonal contact. The picture which emerges from the data is one in which persons who were not just friends, but who were also involved in some unifying activity with one another, were most adept at telepathic communication. Apparently, having a focus which they were all centered on opened them up enough to allow non-ordinary connections to be made. Involvement in a task which required the merging of their energies, the lowering of individual barriers, seems to have been the critical factor. Aside from a lowering of barriers, people who work together share many conscious and unconscious thoughts which give them a broad base of common memories to draw upon in any communication process. This supports the

post hoc findings of Rice and Townsend (1962) who reported that telepathy scores were a direct function of how long couples had been relating together, with those together the longest scoring the highest.

The highest scorers in this study were members of a healing group who lived together and channeled their healing powers (through the laying on of hands) to those seeking help, three days a week. The next highest scorers were members of a theatre troupe which had been meeting four or five times a week for close to a year. Their rehearsals and performances, which I observed, were very intense, involving the emotional mirroring of one another--a progressive immersion into other actors' roles and beings. The other four "extra-close" groups did not appear so unified, but each involved a convergence of personal interests: a group of women who worked in the same office together, the staff of a private school for young children, seven persons in their twenties who lived communally and ran a plant store together, and a group of young professionals who shared a house in the city. My original conception of conditions which would enhance telepathic communication, then, may not have gone far enough. Perhaps a greater degree of closeness than had been supposed is necessary for ESP of the type studied to be solidly demonstrated. It does make sense that in situations where individuals' actions are highly interdependent, they would develop the ability to communicate with one another on all possible levels. (And it was in group living situations

that I first considered this possibility!) It would be interesting to see if this ability were present only for those who held each other in positive regard, or whether mutual dependence regardless of associated affect would be sufficient for the ability to arise.

Only one of the six "extra-close" groups just mentioned above failed to register a greater than chance telepathic performance. I analyzed the context of that session in an effort to determine if there were any extraneous factors which might have contributed to a poor performance. Three possibilities presented themselves: 1) three persons not in the group were active in the house during the session, a potential source of distractions; 2) the two receiving rooms were a long way from the central group, but very close to each other, perhaps making the two receivers feel closer to one another than to the rest of the group; and 3) two of the persons receiving at the same time were a very close couple, in effect a strong subgroup of the larger group. It is easy to see how communications directed at these last two persons could become mixed--bringing one of them to the minds of the others certainly must have activated some associations with that person's partner. Beyond these three post hoc explanations for this group's poor performance is the possibility that a more subtle, underlying dynamic might have been operating. For instance, although these persons rated themselves as very close with one another and worked closely together, maybe they'd had a fight or conflict that particular

day which I was unaware of. This sort of dynamic had definitely retarded communication in another (non "extra-close") group which hadn't scored very well. In that case, after the session, a friend who was acquainted with the group revealed to me that an undercurrent of female rivalry was present there. His information might explain why the two men in that group had scored well, while the four women did poorly. Perhaps some such impeding mechanism was at work in the group discussed above.

The reason I'm dwelling on this last point, aside from simply positing a reason for under-chance results, is to help bring out what may be an important difference in types of group closeness. One type may be referred to as "trait" closeness--an assumedly long-lived cohesiveness among persons who have a history of supportive contact with one another and a large base of shared experiences. The second type I would label "state" closeness, to signify cohesive feelings persons have with each other in a specific situation. The two types may or may not be present simultaneously. In the above examples of groups which scored below chance, for example, a high degree of trait closeness was possibly unaccompanied by similarly high levels of state closeness. In several of the groups of strangers, a relatively high degree of experienced state closeness was certainly unaccompanied by any trait closeness. But in the high scoring "extra-close" groups, it seems that long standing and situational feelings of cohesiveness were both present.

Unfortunately, the pre-session self rating closeness scale does not seem to have been very well anchored. Though it did successfully differentiate strangers from friendly groups on a very gross level, it was worded loosely enough so that persons might be rating either their "state" or "trait" feelings of closeness. Some strangers rated their closeness with the group as high as 5 on the 7-point scale, while there were persons in a group of friends who rated their closeness as only a 4 on the same scale. These and other participants could have been rating against very different standards. I believe that this is why no significant correlations were found between rated closeness and telepathic scoring levels. It is likely that most persons in the friendly groups used this scale pretty much as I had intneded, rating their closeness on a trait, or long-term basis, and their ratings had a (non significant) r of .38 with their ESP scores. Subjects in the groups of strangers, though, do not seem to have perceived the scale in a consistent way, and their correlational coefficient was virtually zero (-.02).

The closeness rating scale completed during the sessions was less susceptible to differing interpretations. It measured the transient state of closeness experienced by participants at that point in time. It is not surprising that this scale registered smaller differences between friendly and stranger groups than the pre-session scale had, since the induction-relaxation tape had attempted to bring them all to the same state. Of course, as Braud, Wood, and Braud (1975) have cautioned, "the presence of an induction procedure does

not guarantee that the desired state does indeed occur in the subject, nor does it indicate the degree to which the state is present in different subjects." This contention seems supported by the fact that the desired state was reportedly induced to a greater degree among the persons who knew one another than among the strangers. In other words, as expected, the effectiveness of the induction was in part a function of the participants' relationships with the others present.

I would now like to return to a point mentioned earlier, that if the two persons out of the room were extremely close, cross connections could develop and confuse their perceptions of the communications being sent. In a similar vein, Hardy, Harvie, and Koestler (1975) remarked at the great likeness between drawings or statements made by percipients during the same trial, but which bore no relationship to the actual target. Warcollier (1948) referred to this same phenomenon as "mental contagion", and there is reason to believe it was present in this study. A number of subjects commented they had thoughts or feelings about the other receiver while they themselves were separated from the group. And group members sometimes confessed that their thoughts would drift from the target person to the other one, especially if those two persons were very close. The tendency reported at the end of the Results chapter, that receivers who knew each other were more likely to choose the same body part than were strangers, is further evidence that "mental contagion" was indeed occurring. Just as I had underestimated the influence of the

experimenter on the total communications pattern, I also failed to take into proper account the potential inter-receiver influences.

These influences may also help to explain why the signal detection statistics did not yield so marked inter-condition differences as the deviation scoring statistics did. The sensitivity to a signal, d', is also a function of the magnitude of the stimulus being used. When this statistic is generally used, the magnitude of the stimulus remains constant while persons or conditions are compared, to detect any differences in sensitivity. However, when used here, there was no way of knowing to what extent the stimulus magnitude itself may have changed as the conditions varied. So the d's obtained denote subjects' sensitivity in each condition, but they are sensitivities to possibly very different stimuli! This is because it can't be determined how accurately and strongly each group (or individual) was actually "sending" the communication. Especially with all the potential noise contamination outlined above, it is doubtful whether we can assume that the signal strength was the same in the groups of friends and the groups of strangers. And it might reasonably be expected to be different in condition III, when only one person was instructed to send. At the time I proposed the signal detection analysis, I wasn't aware of these problems, but must now conclude that its use was questionable. For the purposes of this study, the deviation-from-chance statistics should probably bear

the focus of our attention. At the same time, an appreciation of the signal detection model should be retained, since, as Targ and Puthoff have noted (1974), "as with all biological systems, the information channel appears to be imperfect, containing noise along with the signal." This is especially true here, because the signals in this case are generally out of subjects' everyday awareness.

One more question remains to be answered in considering the contention that interpersonal involvement and closeness enhances the telepathic communication of a positive affective state. That is whether the obtained scoring differences could have arisen in any other manner (besides the possibility that they could be due to chance alone). The only other alternative that's occurred to me is that differential moods accounted for the scoring differences. It could be argued that since the friends knew one another, they could be more relaxed and in a more elevated mood. Also, since the sessions of groups of friends were generally run at a site familiar to them (whereas the groups of strangers were all conducted at a site unfamiliar to those subjects), it might be supposed that this could have been an aid to the friends. I don't believe that such a systematic bias occurred, though. First of all, results from the self-rating mood scale indicated no pre-session mood differences between conditions. Secondly, any tendency for the friendly groups to be more at ease in locations known to them was offset by a tendency for the experimenters to be less at ease in those same locations. The experimenters were more

comfortable in the houses familiar to them, which were primarily used for the groups of strangers. This might be another basis for their somewhat higher mood when leading groups in conditions II and III. A third indication that the location factor did not contribute to group differences in the hypothesized direction was the trend for the small groups of friends (condition III) tested in one of the standard houses to score better than those tested in their own homes. Possibly the most relevant "location" was the mental set established by the experimenter and the relaxation-induction procedure, regardless of the physical setting which actually housed any particular session.

The picture I propose, then, is one in which groups of friends have somewhat stronger non-verbal, non-proximic emotional connections with one another than do groups of strangers. These connections are stronger yet when the friends have a focus around which their energies are integrated relatively often. This argues against the belief that the only reason most reported spontaneous telepathic cases involve persons known to each other is due to the greater likelihood of confirmation in those cases. Under controlled conditions, with equal likelihood of confirmation, the familiar persons correctly perceived more communications than did strangers.

Group Size

No clear-cut conclusions can be drawn about whether (or to what extent) a group's increased size may enhance its potential for telepathic connections with its members. The

data show a trend in the direction of more accurate perceptions when a group of friends (condition I) was sending the positive emotion than when only a single individual was sending (condition III). However, support for the hypothesis was far from impressive. A number of observations may help to account for this. To begin with, there seemed to be a slight qualitative difference in closeness between the groups of three and the groups of six, reflected somewhat (though non significantly) by the pre-session closeness ratings: an average of 6.2 vs. 5.7 on the 7-point scale. A larger proportion of those in the smaller groups were participating with someone they shared a close dyadic relationship with. As the groups became larger, then, the average closeness between members may have been somewhat reduced. Maybe increasing the group size added to the number of close interpersonal connections, but didn't increase their total power as much as had been hoped. It should be noted too that what I've been calling the "individual" condition was actually that only during the testing periods. At other times during the sessions, persons in condition III formed a small (3-person) group, with all the benefits of group interaction and support outlined in the Introduction. Though only one person was sending at a time, a sense of the small group may have pervaded the sending room and aided in the transmission. The size contrast between conditions, then, may not have been as stark as a first glance would indicate.

The addition of more sending agents (in the larger groups) also increased the possibility of extraneous "noise"

in the system. There was more of a chance that some one member of the group would focus at least momentarily on the wrong receiver during any given trial. Thus, though the strength of the signal may have been increased somewhat, it may also have been partially offset by a higher probability of false sending in the larger groups.

The behavior of persons in the poorest scoring group in the entire study may also shed some light on the point being discussed. This group of strangers, I noted during the session, "felt as separate as any I've worked with," and one person in particular seemed to be the source of the lack of rapport. When the session was completed, she was the first to leave. As soon as she did, the tenseness in the air seemed to dissipate and the remaining participants opened up to one another, staying for another half hour or so to discuss their experiences. It was as though that one woman had changed the atmosphere for the other group members and prevented positive connections from being made. I had read previously of "energy sappers" (Karagulla, 1973), but hadn't seen so clear a demonstration of it before that session. No doubt, this same effect may have occurred in a less obvious fashion at other sessions. Pondering this possibility has led me to alter my previous view of the benefits of increased group size on sending power. I had conceived of an additive function, whereby more persons might or might not add strength to a group's signal, but certainly wouldn't detract from it. Now it appears to me that it might have a multiplicative element, with a negative component possibly

wiping out the contributions of a number of positive ones. Of course, it wouldn't be a strictly multiplicative function, for it seems unlikely that two negative energies would produce a positive effect. In any event, operation of the size variable is not as straightforward as had been supposed.

Another possible clue bearing on this point was gathered when I had the opportunity to run an extra sub-session with what was to become the best scoring group in the study--the healing group. Six members took part in the usual series of three testing sub-sessions. But just prior to that, following the relaxation-induction procedure, all fourteen members of the healing group who were present (and had sat through the induction) were invited to participate in a single sub-session. Two persons left the room and the remaining twelve attempted to communicate to them just as the smaller groups were asked to do. (After this single sub-session, the two receivers and six of the senders left the premises and the remainder of the session was completed.) The two subjects who recieved from their twelve friends both scored barely above chance expectation (deviations of +.33 each), while subjects receiving afterwards from the smaller group of friends had extremely high scores (an average of +2.00 each). These are scanty figures to draw any conclusions from. In addition, though, three of the six persons who participated in both the larger and smaller groups commented that they felt a more intimate contact with fewer persons present, and therefore found it easier to hold their energies together and

focus on their friends in the other rooms then. (The other three persons reported no difference in ability to send while in the two different sized groups.) Apparently, any beneficial effects gained from increasing group size may go beyond a point of diminishing returns and actually start to detract from the unity and sending power of the group. There may be an optimal size above which the connections already established start to loosen. In addition, as discussed earlier, the potential noise level of false sending increases with each additional person. If we could find or train a population of perfect "transmitters", though, this latter effect could be minimized.

In retrospect, it is not surprising that a group would become less cohesive, and a resultingly poorer transmitter, as its size grew beyond an optimal point. From my own and other persons' experience in conducting working and therapy groups, I know that once they get larger than eight or nine members, some intangible glue holding them together is lost. More thorough investigations are needed to determine whether this experienced effect holds true for telepathic communications as well.

Finally, the question still remains whether extremely large groups, in the hundreds, thousands, or more, might be effective in generating communication effects of the type studied. It is possible that group size might fully evidence itself as a factor only on such a macro level, and that any research involved solely with small groups would entirely

fail to discover this. If this is the case, then large scale group telepathy might be unconsciously awakened and manipulated by our mass media every day. It is important, then, to conduct research at that level too, possibly with the aid of those very media, to give us a more complete rendering of group size effects.

Body Part Targets

A number of factors combined to make the correct perception of body part target areas a more difficult task than had been supposed. Some of these difficulties pertained more to the receiving end, while others were tied primarily to the persons sending. Perhaps most outstanding in the former category was the fact that subjects weren't asked to note their target choice until all seven timed trials had ended. Though it was felt that this would give them time to build up a Gestalt feeling about the correct part, it probably had the unintended effect of allowing them to ignore their first (and generally best) impressions and to rely more on later thoughts about which would be the right choice. That is, placement of the question may have provided their rational processes the opportunity to dominate the desired intuitive responses. Another factor which might have retarded subjects' ability to respond correctly was their lack of practice at this task. Though given feedback on three timed trials, they had no chance to test their ability to feel where the communications were centered, and so had no standard against which to gauge their feelings. A final receiver-

based explanation for the poor results could be that each individual had their energies concentrated at a specific part of their body and could not easily detect changes in other parts. If this is so, then the preponderance of "head" responses might simply be an indication that the consciousness of most subjects was locked in their heads.

The strong head bias could be interpreted in another, equally likely way, however. No matter which body part was being sent to, many transmitting persons also held in their minds a picture of the face of the person being contacted. Thus, while focusing on another part of the body, some contact was also being established with the receiver's head. Many "incorrect" responses, then, may actually have been correct perceptions of improper, unfocused sending. A number of participants voiced difficulty in staying centered on any one body part through all seven trials--their attention would drift, usually to a neighboring part. Group sending assumedly minimized this "leakage" effect, with most persons focused on the correct part at any given point in time. But percipients may still have felt contact from a stray sender and responded to that impression.

A final point regarding body part scoring relates to the low level of "navel" responses observed. Whatever the reasons for this negative bias, past research (Stanford, 1967) had suggested that seldom made responses were more likely to be hits than were frequently made responses. Data from this study, though, do not support that finding.

Though body part choices did not prove successful as the

hoped for overall-Gestalt scoring measure, subjects did like making this type of response. Possibly in future research, body parts could be used as targets on an individual trials basis. However, I would advise against using two different aspects of receiving any more, for though no differential effect appeared, some form of task rivalry might have held down scoring for both timed trials and body part aspects.

Assurance Trials

The failure of the high assurance trial findings to support some prior research which linked higher assurance with higher scoring might be attributed in part to the fact that subjects were free to mark any trial as a "sure" one. Limiting the number of assurance calls might have resulted in more discrimination and improved scoring. Or perhaps high assurance trials only served to amplify the direction of scoring already present--improving it for good scoring conditions, while decreasing the performance of the poorer scorers. In any case, the general decline for trials rated most sure (7s) might indicate that those responses were based less on ESP information than on emotional or response biases. Possibly subjects were attempting to balance their responses to match the pre-stated probabilities and felt they would or would not be sent to on a specific trial, without regard to their actual impressions on that trial. In other words, their beliefs rather than the actual cues present may have been the primary determinant of these responses. This accords with some previous work (Beloff and Bate, 1970; Schmeidler, 1971; Stanford

& Mayer, 1974) which has suggested that subjects viewing an ESP task too overconfidently tend to do less well than those viewing it more realistically. One more, simpler, possibility is that the 7s indicated subjects were trying hardest on those trials, and therefore were not relaxed enough to receive well. Whatever the reasons, a high, but not the highest, degree of assurance came the closest to upholding the stated hypothesis.

Reported Breathing Patterns

The sharp difference between the number of reported left and right-breathers would seem to indicate that breathing sidedness may very well be a variable worth checking in future research. Though this difference was not reflected by performance variables in this study, it may have been accompanied by undetected psycho-physiological changes. Perhaps there were no left-right scoring differences because the processes involved in first perceiving and then recording an impression were more bimodal than unimodal, involving both intuitive and linear modes of consciousness. If responses could be easily recorded on audio tape, it might be less disconcerting to have subjects voice their responses rather than write them down. Under this type of procedure, the relaxed state which the induction assumedly puts them in would not be so disturbed, and we would have a clearer procedure to find out if those persons breathing through their left side evidenced the hypothesized scoring advantage. Another approach would be to have respondents

signal in some way only on those trials when they felt a communication directed at them (or alternatively, only when they didn't feel one). This would cut down greatly on interruptions of their state.

Of course, an obvious interpretation of the results obtained in this study would be that the telepathic process is unaffected by breathing patterns and/or hemisphere dominance. One would need to use more standard measures of laterality in conjunction with ESP tasks to determine if this were the case. In the meantime, I would hesitate to discard the hypothesis on the basis of this single set of negative findings.

Trial and Sub-session Order Effects

Scoring decline effects are usually interpreted as due to boredom or decreasing motivation. I attribute the failure of these effects to appear here as due primarily to the nature and procedural timing of the experimental task. Subjects were highly motivated to find out how well they'd receive impressions, and maintained that interest while others were removed from the group. The elapsed time between the first and last pair of subjects leaving the group was forty minutes, but this represented only about one fourth the time of the full session. Thus the relative difference in waiting time between early and late subjects was small. Once a participant had left the group, there was a total of just ten trials, so again the decline effect had only a

limited time to appear. Most subjects were very grateful to have had the opportunity to participate in the study, and many claimed to feel more relaxed and buoyant when the sessions ended than when they'd begun. The vast majority were definitely not bored by the procedure, a probable contrast to studies which produced the "decline effect."

VI

CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

No firm conclusions may be drawn on the basis of this research. However, a number of suggestive trends indicate that some of my original ideas justify further research and should be retained as reasonable working hypotheses. In addition, questions generated by this study provide some interesting leads for future investigations.

The two most suggestive findings of this research, relating to experimenter state and interpersonal closeness, both imply the importance of social and field effects on subjects' performance, irrespective of their individual capabilities. My feeling is that researchers should try to be as aware as possible of the total (psychological and physical) context in which any studies are to be conducted. I have some doubts about whether a continued step-by-step analytical approach will be successful in unearthing the basis of ESP phenomena. There are so many potential uncontrollable, interdependent variables which may bear upon these events that it seems the traditional scientific paradigms we've been following may need to be modified. I feel that I've made a small start in that direction, but that I haven't gone nearly far enough--I experience the weight of my formal training as holding me back, keeping me blind to the full nature of what I'm studying. Hopefully, completion of this dissertation will free me to see beyond my own veils. I have the strange feeling that all the results I obtained are just

a reflection of my own consciousness, that if I expand my outlook, my "results" will expand concomitantly. Perhaps the only reason subjects in the poorer scoring conditions failed to do better was because I didn't expect them to--for one thing, I had a bias against strangers being able to establish close connections in only one session. The comment on the induction tape that much practice was needed before impressions could be properly deciphered might also have discouraged extra-chance scoring. If we can collectively raise our expectations about the capabilities of our fellow (wo)man, then we might discover things we can't even conceive of today. The specter of our own self fulfilling prophesies should not be underestimated.

With the above cautions clearly stated at the outset, let me go on to say that despite its limitations, I feel the research reported herein can be useful in establishing a new methodology. Working with a general, not specially talented population, examining persons in their own setting, with their own peers, relating through a medium of some personal relevance, utilizing an experimental model in a non-experimental setting, might be leads worth following in other research. I would suggest a format in which, as in this study, participants are not simply used to satisfy the experimenter's data needs, but an exchange is set up whereby they receive some helpful training or can become involved in the design process in return for their assistance. Hopefully, future research can get still closer to the natural fields in which "subjects" are embedded, further away from contrived testing

situations. As relaxed as participants were in this study, a number of them still said they experienced anxiety once the practice trials ended and the regular ones began. (One possibility for making the sending of positive feelings even less artificial could be to use as subjects persons who have come to a healing or spiritual group for help. Then see if they could detect when the group was sending "positive energy" which might be of benefit to them. Assumedly, motivation would be high and subjects would be very emotionally involved with the communications being sent.)

The overall findings of this research suggest continuing to work with groups of persons friendly with each other, especially those whose members are highly interdependent in some way. I would expect the most productive area for discovering a high level of group telepathy would be in the study of assemblages of persons highly reliant upon the actions of one another, such as living groups, sports teams, musical and dance groups, or teams of policemen or firemen. If such studies were to be conducted, I would recommend using as the ESP target a feeling or concept directly relevant to the way in which the persons are related. For example, athletes might be asked to impart a specific direction of movement to a teammate, while policemen could be asked to convey a sense of impending danger or warning to one another. The two best scoring groups in this study (healing group and theatre troupe) might have performed so well because the message (love, caring) being sent was most directly relevant

to their own activities as a group. Positive feelings, then, might be the most effective connecting medium only for certain types of groups, an echo of previous research by Schmeidler and Craig (1972), who suggested that the mood patterns conducive to high scoring would vary from one group to another. What seems of prime importance in examining this hypothesis is that the communication task, whatever it is, be derived naturally from the group's environment, rather than imposed artificially to suit the experimenter's predetermined methodology. At the very least, this should help to ameliorate the deadening sense of experimental seriousness I've felt in this and other studies.

Due to the strong possibility of inter-receiver cross connections as discussed earlier, I think it might be best to have only one person at a time receiving. The resultant lenghtening of the experimental sessions might be compensated for by reducing the introductory and induction times somewhat. I believe this could be done without negatively affecting the results if all the groups being worked with were close already. Another suggestion, since the communication is based on a two-way interaction, would be to give practice trial feedback to the transmitting groups if at all feasible, allowing them the opportunity to adjust their sending style. An additional modification would be to have the groups choose which members would be the best receivers at a given session, trusting their intuition to help determine the most receptive individuals and the strongest transmitters.

This method might be especially appropriate if a longitudinal study were made of how group ESP ability developed over time--if a long enough time span and large enough sample were used, then there'd be no need to test everyone at each session.

If working with cohesive groups in the ways suggested yields a population in which telepathic communication manifests itself relatively strongly, it would present the opportunity to test the effectiveness of various induction techniques and transmission methods. Does it help to establish physical contact between sending agents? Is it more effective for the agents to passively envision the receiver, or to actively send to him? Does the physical position of participants have an effect on results? How does the general location of the groups affect scoring? (Possibly cities and other "noisy" environments are detrimental to ESP.) Is there an optimal range for group size? All these and other issues could be explored in contexts where people naturally communicate with one another on many levels.

I believe it especially important to look more into the "sending" end of telepathic communications. It's generally been taken for granted that when an agent is instructed to transmit a specific communication, that is what takes place. We need, however, to explore the question of whether there are unintended transmissions--subjects in this investigation may actually have received much better than their scores indicated, only they received signals which the experimenter

didn't intend to have sent out. We need to determine the most effective instructional set for achieving clear, unambiguous connections. This will be a most difficult task, since it's still not clear how telepathic communications actually operate--are they more a function of the "receiving" or the "sending" end? Most likely, some integration of the two.

The notion of decreased interpersonal barriers aiding telepathic performance leads to several other research ideas. Would mothers and their young (dependent) children evidence strong connections of this type?--a large number of participants in my study suggested that this would be so. Would persons from another culture, with less clearly defined perceptual boundaries, such as the Trobriand Islanders (Lee, 1973), be more apt to pick up telepathic messages? Would a group whose members evidenced synchronous EEG, EMG, or GSR readings while in physical contact with one another (holding hands) communicate well telepathically?

Finally, if close groups really do prove reliable in producing telepathic effects, then perhaps the degree of closeness can actually be gauged by the level of those effects. How well a group can communicate in this fashion could conceivably be used as a measure to compare the cohesiveness of various groups. Such an application is obviously speculative at this point, but I feel it's useful to note ways in which parapsychology may interface with the more traditional interests of psychology. This last

suggestion also brings this research project full circle, for it was in the study of intimacy in living communities that I became interested in group psychic communication. It's possible that I've made a first step towards the operationalization of my original intuition.

Clearly, much of this discussion is no more than guesswork, couched in a combination of scientific jargon and personal beliefs. The true explanations may, after all, not be expressible in either our causal model or in a written language. Maybe we're trying to force the shoe of our reality onto something that isn't a foot at all, much less the right size. That is the doubt I live with now.

Where are you, Cinderella?

APPENDIX A

Log of Completed Sessions

Date	Time	Location	Experimenter	Type and # of group
3/2	7:30	1217 Evelyn, Berkeley @	AC	III-1
3/9	8:00	2611 Grant, Berkeley	AC	III-2
3/10	7:30	1619 Bancroft, Berkeley @	AC	II-1
3/11	7:30	6413 Hillegass, Oakland @	MK	II-2
3/12	7:30	1217 Evelyn, Berkeley @	MK	II-3
3/14	7:30	1434 Milvia, Berkeley	AC	III-3
3/17	8:00	50 Poppy Lane, Berkeley	AC	I-1
3/18	7:30	6413 Hillegass, Oakland @	MK	II-4
3/19	7:30	1217 Evelyn, Berkeley @	JB	II-5
3/20	7:30	1619 Bancroft, Berkeley @	AC	II-6
3/24	7:30	1619 Bancroft, Berkeley @	AC	II-7
3/25	8:00	935 Leneve, Richmond	MK	III-4
3/27	8:00	131 Central, San Francisco	AC	III-5
3/31	8:00	5547 Claremont, Oakland	BC	III-6
4/1	8:00	private residence, Pleasant Hill	MK	III-7
4/2	7:30	112 Hamilton Place, Oakland	JR	I-2
4/3	7:30	1217 Evelyn, Berkeley @	AC	II-8
4/6	7:30	Orchard Meadow, Mills College, Oak.	AC	III-8
4/7	7:00	1812 Delaware, Berkeley	JR	III-9
4/8	7:30	609 Valle Vista, Oakland	AC	I-3
4/9	7:30	747 14th Ave., San Francisco	JB	I-4
4/10	7:30	2854 Sacramento, San Francisco	AC	I-5
4/13	7:00	388 Elizabeth St., San Francisco	MK	I-6
4/16	8:00	Bolinas	AC	I-7

Log of Completed Sessions, Continued

Date	Time	Location	Experimenter	Type and # of group
4/20	8:00	1217 Evelyn, Berkeley @	BC	II-9
4/21	7:00	148A 29thSt., San Francisco	JB	III-10
4/22	7:30	222 Clipper, San Francisco	MK	I-8
4/23	8:00	1217 Evelyn, Berkeley @	JR	II-10
4/25	7:30	2817 Ellsworth, Berkeley	BC	I-9
4/28	8:00	1217 Evelyn, Berkeley @	AC	II-11
4/29	7:30	6413 Hillegass, Oakland @	AC	II-12
5/1	8:00	3116 Washington, Alameda	AC	MIX-1
5/4	9:00	384 Colusa, Kensington	AC	I-10
5/5	7:30	1217 Evelyn, Berkeley @	AC	II-13
5/18	4:00	6413 Hillegass, Oakland @	AC	III-11
5/26	8:00	2719 Derby, Berkeley	AC	I-11

@-denotes those sessions conducted at locations provided by the author; all others took place in the residences of participants

APPENDIX B

Experimenter Instructions

1. Make sure main area looks comfortable, pillows spaced about. See that receiver rooms have chair, writing table, and proper light. Start music on tape recorder.

2. Remove all possible distractions; i.e. animals, phone off hook; when all participants are present, put sign on door telling others that group is in progress. Wait only 15 minutes for late members. If necessary, run larger groups with only 4 or 5 present. Have them remove their shoes.

3. Explain who you are and that Andrew Condey will be there at conclusion of session to answer any further questions.

4. Give pre-session questionnaire form to each person. Fill out top and first three questions of experimenter questionnaire while they're filling theirs out. Collect it from each person directly (no passing around).

5. Pass out blank sheets of paper, place crayons in center of group, and have them each write their first name in large letters across the horizontal sheet. Then collect name sheets and crayons.

6. Present general talk on telepathy, covering and expanding on the following points (about 10 minutes):

a) we are each an energy field, how all our fields are interconnected, though we're often not aware of it.

b) importance of emotional involvement; how this study unlike others, deals directly with feelings for others rather than with cards or pictures.

c) telepathy as a natural unfolding of abilities which have generally been supressed in this society; emphasis as much on unlearning habits which have covered it, as on learning new skills.

d) TV analogy; how we must tune in to the proper frequencies; resonance of similar forms - i.e. a centered feeling for a person in us, will resonate in that person. Our minds act as tuning forks.

e) doing this requires quieting the mind.

f) then deciphering what comes in; we each receive differently and have our own internal symbols.

g) stress the importance of practice, as in developing any ability; they will be receiving some feedback in this session.

h) possible applications - healing, therapy, save on phone bill, greater awareness of others and therefore better relations.

7. Answer questions they may have about the above points.

8. Have each participant introduce themself and then spend a few min-

utes saying what brought them there, and sharing a telepathic or psychic experience they've had, if they can. (about three minutes each).

9. Point out items from their discussion which relate back to points you raised in your talk.

10. Describe the full procedure for the rest of the session (takes about 10 minutes):

a) function of low lighting, music, not eating: to help them relax and reduce external stimuli; music also serves to attune them all to a common frequency and make establishment of psychic connections easier.

b) explain how two people will leave at a time, and show everyone around to the rooms they'll be in; let them feel those rooms a bit, so they won't be strange later on.

c) explain how the trials will work, how many there will be, display sample body part pictures, SELF name sheet; show how the target person will be signified to the group.

d) emphasize that on each trial the probability will be one third that either person will be the target, one third for the other person, one third for the group (or individual) not to send out; but the trials will be totally random, so it's possible that one person might not be chosen on any of the seven trials.

e) they will fill out a questionnaire indicating for each trial whether they feel the group was communicating with them and how sure they are of this. Explain that they'll also be asked to note their breathing later since some evidence has suggested that this may be related to how well they receive impressions, but not to pay attention to it till then.

11. Answer all questions about procedure - it's important that everyone be clear now so their relaxed state is disturbed as little as possible later on.

12. Place proper number of folded papers in center of group, have them choose one each, then read off to you their code. This, you explain to them, determines the order in which they'll leave the room.

13. Have people get as relaxed as possible, remove eyeglasses, socks if warm enough.

14. Remove music (if its run out earlier, you've turned it on to the second side) and place on induction tape. In the event machine breaks or tape jams and you can't free it, put music back on and read induction talk from printed copy. While induction tape is on, complete the experimenter questionnaire.

15. At end of tape, allow people to stretch, without talking.

16. Have 1A and 1B go to receiving rooms, giving them their copy of the questionnaire and small envelope. Make others aware of who goes where. Move one speaker in direction of each receiving room so target persons can hear the timing tape through closed doors. Put timing tape on (re-

verse side of induction tape). (If the timing tape breaks down, put on the music tape and time the trials yourself, 35 seconds for each trial, 25 seconds rest between trials. Signal each period with the bell--one at the beginning and two rings at the end.)

17. Have group choose a body part envelope from the three marked BP1. Place the sheet in center of group. Before first practice trial explain to remaining persons how best to transmit:

> Visualize or sense recipient in some way, feel their essence as best you can, then send loving kindness to them, in a pulsing rhythm; give this love vibration as much physical, mental, and emotional energy as possible; see it flow towards that person's body part (whichever one has been chosen) and know that it's received. It may help to send this on a beam of white light. All the time be aware of others in the group doing the same thing and let your energies reinforce one another in this love message. Tell them to actively will the message.

18. Choose an envelope from among the three marked T--these contain the random target sheets. Just before each trial, remove each sheet just enough from the envelope so you can see who the next trial will be directed to and get ready to place the proper name sheet in front of the group. At the end of the trial, remove that sheet and prepare for the next trial.

19. Put microphone in recorder jack. Fifteen seconds after the end of each feedback trial, push down (only the) red Record button on the recording machine. This will stop the tape and activate the speakers as a public address system. While holding the Record button down, speak into the microphone "The group was sending to _____(person's name) on that trial." Then release the button and restart tape. After third practice trial, remove microphone from the machine.

20. Check off each trial on target sheet as it's done, to help you keep track. At end of seventh trial, while receivers are completing their questionnaire, remove all name and body part sheets from in front of the group and mark body part on bottom of target sheet. Allow group to stretch, without talking except for questions directed to you, then when receivers return, the tape will have everyone sit in a circle again, close their eyes, and re-establish contact. After about a minute of this, the next two persons are asked to leave (2A and 2B in the six person groups, or 1A and 2B in the three person groups). Then repeat procedure to this point, using the body part envelopes marked BP2. Tape should be stopped if necessary to allow receivers time to return before the next pair is sent out.

21. Similarly, repeat procedure with third pair (in the larger groups)--3A and 3B leave. If only five persons are present, have 1A leave again with 3B. (Use envelopes BP3 here.)

22. At end of last sub-session, compare their short results sheets with the target sheets. Do not remove their questionnaires from the sealed envelopes. Discuss what they felt during the session, and answer any further questions they might have. By this time Andrew Condey should be there to complete the debriefing.

Summary

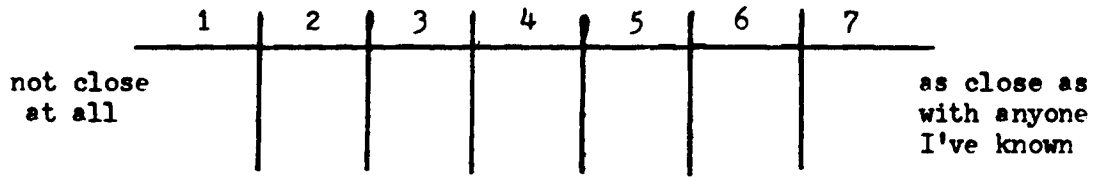
	approximate time
Settle down, pre-session questionnaire, begin experimenter questionnaire	5 min.
Crayon name sheets	2 min.
General talk and answer questions	12 min.
Sharing of individual experiences	20 min.
Detailed description of procedure and answer questions (includes showing everyone the other rooms)	10 min.
Choosing recipient codes from folded pile	1 min.
Induction tape	40 min.
Sub-session 1--two persons leave room and remaining persons transmit positive feelings for three practice and seven test trials (according to random target schedule)	15 min.
Regrouping--stretching and feeling group connections again	5 min.
Sub-session 2--next two persons become recipients	15 min.
Regrouping	5 min.
Sub-session 3--final two recipients (for six-person groups)	15 min.
Review results and exit discussion	15 min.
	2½ hours

APPENDIX C

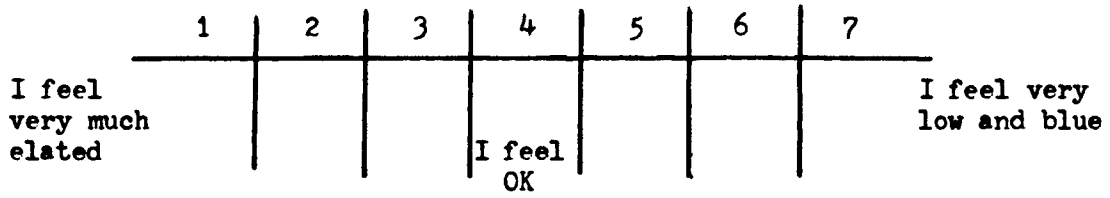
Pre-Session Questionnaire

Name_____ Date_____

1-How close do you feel with the other members of this group?
(mark appropriate box, showing the degree of closeness you feel)



2-What is your general mood now?



3-What are your feelings about psychic communication with others?
(check one)

_____I believe it's possible and expect it to occur here

_____I believe it's possible but I'm not sure whether it will occur here

_____It may be possible under other conditions but cannot happen here

_____I'm sure it isn't possible

4-Have you practiced psychic communication before this?

_____Not at all

_____Rarely

_____Sometimes

_____Often

_____Do it regularly

5-Have you had anything to eat or drink (besides water) within the last two hours?

Yes_____ No_____

6-Please write down your month and day of birth. (e.g. July 7)

APPENDIX D

Experimenter Questionnaire

Name_____ Date_____ Time_____

Location_____

1-General mood at beginning of session (check one box):

	1	2	3	4	5	6	7	
I feel very much elated								I feel very low and blue

2-Energy state at beginning of session:

	1	2	3	4	5	6	7	
Totally awake & full of energy								Very tired

3- Number of participants:

Number receiving communications:

4-Code numbers and letters: (fill in names)

1-A _____ 1-B_____

2-A _____ 2-B_____

3-A_____ 3-B_____

5-Impression of group during session:

	1	2	3	4	5	6	7	
Not close at all								Couldn't be closer

6-General impressions and comments:

Appendix E

Taped Induction Talk

(Indian music playing softly in background throughout)

Now... would you please assume as relaxed a position as possible, preferably sitting up, but if that's not comfortable, you may lie down.

Close your eyes... and let your body feel loose and relaxed.

First, get in touch with any tension that you're holding in your toes and in your feet. Feel that tension. Experience it... and now let go of it.

Now feel any tension in your ankles... and release it. Get in touch with the tightness, if there's any, in your lower legs... Feel that, really get in touch with it... And now let go of it.

Now with your knees... feel the tension... and release it. Experience any tension in your thighs, your upper legs... Feel it completely... and now let go of it. Feel the tension just flowing out of your legs... Let them be completely at ease.

Now experience any tension around your hips, your pelvic area, your genitals. Again, first feel that tension, get in touch with all of it... and now release it. Let it flow out of your body.

Now with your stomach... feel the tightness there, feel any tension... and release it.

Your chest... experience the tension, any tightness there. Feel it... and let go.

Now your lower back, the base of your spine, your buttocks. Experience any tension that's collected in that area. Feel it completely... and now let go of it.

Now your upper back... feel the relaxation spreading up from your legs, through your lower back, and up your back and to your shoulders... Feel any tension there, and then feel that tension just flowing out... Feel it being released.

Now, in your upper arms, experience the tension, any tightness you're holding there... Feel it... and let go.

The same with your elbows and your lower arms... Feel the tension... and then feel it being released.

Now let this relaxation flow down to your hands. Feel the tension in your palms and fingers. Feel it flow out the ends of your fingers. Experience your arms and hands as completely relaxed now, letting go of all the tensions you've been holding there.

And now your neck. Experience any tension held there... and release it.

Your face, feel any tightness on your face and allow it to flow out. Relax your jaw... let it hang loose, relax your eyelids... let them be loose. And feel an airy relaxation over your entire face.

Now, sense any tension that's collected in your scalp and head, and allow that to flow out the top, just let go of it... relax.

And now sense your entire body and let go of any tension remaining anywhere. Experience yourself as completely relaxed. Enjoy this total physical relaxation.

This is the first step in putting ourselves in a receptive place where we can pick up psychic communications from others. We need to relax our bodies completely. . .

Picture in your mind now a white screen. Project an image of a white screen in your mind. Make it as real as possible. See a colored frame around it, a green frame. Make that screen and frame as real as you can.

And on that screen now, project the number one. See the number one, absolutely clearly, very large, paint it if that helps, or sculpt it out of stone. But see that one as clearly as possible. Or, if your have much trouble visualizing, then sense the number one in some other way. That number one is associated with total physical relaxation. When you want to return to this state, all you need do is close your eyes, relax, visualize the number one or sense it in some other way, get in touch with the relaxation state you're in now and you'll be there. The more you practice this, the faster you'll be able to arrive at this state. You will be able to do it very quickly.

Now visualize on that screen the number two. This number will be associated with total mental relaxation. Let go of any thoughts in your mind, any things that occur to you, just let them flow through. Release any worries you have about things that occurred today or about events that might take place tomorrow, or any time in the future. Let go of all that and be here now. Be in this relaxed mental place and know that you can return to it by visualizing the number two, by projecting it on this mental screen and experiencing this relaxed mental state.

Now on that same screen project the number three. See it as clearly as possible, and let this number be associated with your creative center, with your openness to impressions coming in to you. With your ability to be in touch with other levels of consciousness. After you've relaxed your body and mind and then see this number three on your mental screen, or sense it in some other way, you will be in this state, in a patient, relaxed, waiting frame of mind. Now, just continue to relax, know that you can return to this receptive state by repeating this exercise and that the more you do it, the easier and quicker it will become.

These are the three basic ingredients necessary to a receptive state. Relaxing your body, clearing your mind, and allowing yourself to wait patiently in your center for impressions to arrive.

While you're in this space now, sense the presence of the other people in the group. Get in touch with any vibrations or impressions that are surrounding them and feel the connections. Know that they're there and get in touch with them and know that later on you'll be able to experience them even when you're removed from the group.

In a moment now I'll be counting from five to one and you'll be returning to your normal state of consciousness in this room. After a shourt break then, we'll return to this state and allow you to experience it once again thereby giving you practice in entering and leaving this receptive state of consciousness... So that you'll be able to do it more easily later on in the session and also at home on your own. The more you practice these techniques we'll be using, the more easily you'll be able to return whenever you wish. Five, you're starting to return back to your normal consiousness, Four, feeling alert, feeling refreshed, more energy then when we started. Three, coming back to this room, feeling very awake and refreshed. Two, almost fully returned now. One, now open your eyes.

Get in touch with the physical surroundings around you now and for the next minute or so just stretch and walk around if your like. Don't speak please, but feel free to move about.

Now please return to your sitting position.

Relax, take a deep breath and close your eyes once again. Now visualize in your mind a white screen and on it see the number one. As you see it, feel your body completely relaxed. Feel in touch with the complete sense of relaxation you were feeling before... Now visualize the number two and as you do, let go of any thoughts that are occuptying your mind, any worries. Let go of them all and relax your mind completely... And now visualize the number three and as you do, sense yourself to be in an open receptive state, in your center, where you can feel free to accept impressions coming in to you.

Now I'm going to count from one to ten. As I do, you will feel more and more in touch with this centered place. You will feel even more deeply relaxed, more in touch with your creative abilities, with your openness to impressions. One... two, this is something you can do with yourself later on... Three, counting yourself into a deeper state of relaxation... Four, in to a deeper state of consciousness... Five, a total sense of esse... Six, feel yourself bathed in white light from above... Seven, let that light reach all parts of your body and relax it further... Eight, as you exhale, feel the light spreading out from your center, carrying relaxation with it... Nine, you've reached a warm state of total restfulness... Ten.

Now just sense this place for a moment. Relax. Enjoy it. And know that you can return here by counting to yourself and bringing yourself into this deeper state... Now, in your mind, see your ideal place of relaxation. This might be your room at home, or it could be the seashore, or a peaceful mountain top, anywhere that you feel completely relaxed, totally sure of yourself, a friendly place... Now see that place and experience it with all your other senses. Smell it, feel it, sense it as completely as you can and know that you can return to this sanctuary of yours anytime you wish; just by willing it in this fashion.

Now feel yourself floating up above this place of relaxation. Floating up lightly, in an easy breeze and look down on it from above. Know that you're floating above it, still totally relaxed. And feel yourself floating up further and into some friendly, white, billowy clouds. No rain in them, just soft and cushiony. Sense yourself floating through these white clouds.

Still very relaxed, and know that at some point you can break through these clouds, you'll just float through them... And as they clear, an impression or answer to a question you've posed will come to you.

You'll just be floating and all of a sudden float through the clouds and you'll see very clearly an impression in front of you. To make it out it may help to concentrate as you inhale and relax as you exhale. You might not actually see anything, you might sense it in some other way. It's important to remember that everyone receives impressions or communications in their own way. Some people may see them, some hear them, some may feel them with their own bodies, some just sense them in a real knowing way, without relating it to any specific normal sense.

The main point here is to be patient and to allow the impression to come to you... and to be open to it in any form that it may take. Also, learn to trust your <u>first</u> impressions and not to get lost in associations your thinking mind may add to them... It's relatively easy to open ourselves to

these impressions. It's much more difficult to learn how to decipher, how to interpret them. It takes much practice to interpret the different cues that are coming to us. But you can do it by going through these exercises, relaxing, going to your place of relaxation, floating above it, through the clouds, till you experience some form of impression. Just wait patiently, not forcing anything to come, but relaxing and waiting as you're floating.

And now, whether or not you've actually experienced some input, feel yourself float down to your place of relaxation again, float down easily, return to that place. And know that you can go back to this relaxed, floating state of consciousness almost instantaneously by repeating the procedures we've been going through now. Know that you can relax yourself and open yourself up to these kinds of impressions at your will.

Now leave your place of relaxation and once again feel the connections in this room, experience the presence of the other persons here... And know that you can get in touch with those connections with these people or with other people, whether you're right next to them, or whether they're a few rooms away or whether they're hundreds or thousands of miles away. Know that it's a matter of opening youself up to the right frequencies, to the right vibrations, so that you can receive impressions from these other people.

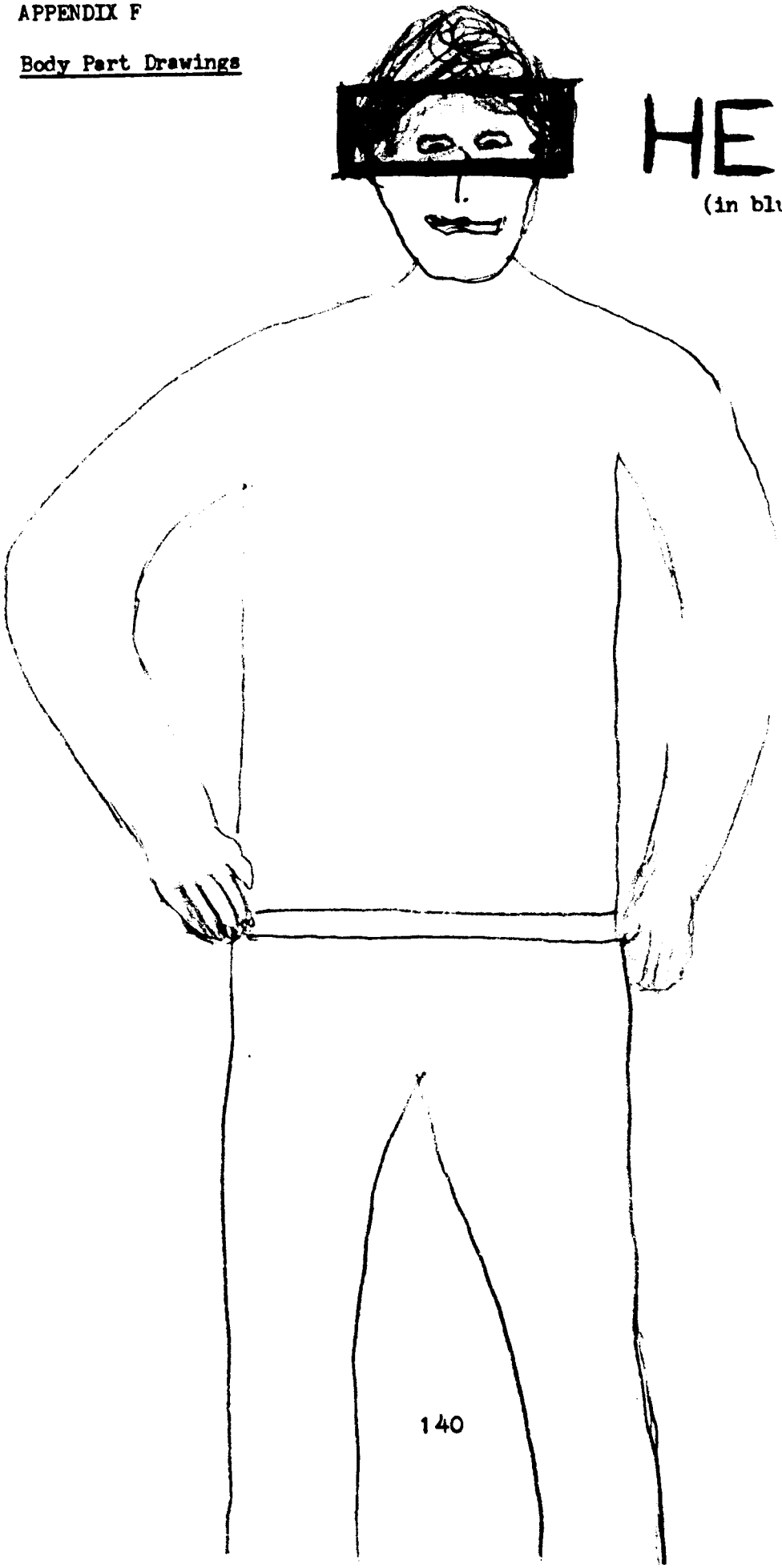
Now, send some positive feelings, some love, to each of the other persons here. When you're communicating in the trials in just a short while, the people removed from the group will be in a receptive state as you've been in just now. The group or individual remaining here will be making contact by pulsing out positive feelings while holding an impression of those persons in their mind. It can become very tiring to send continuously; it seems to be more effective to visualize or feel or experience that other person in some way, sending positive feeling, and then letting go, and sending again, and letting go, <u>knowing</u> that it's reaching the other person.

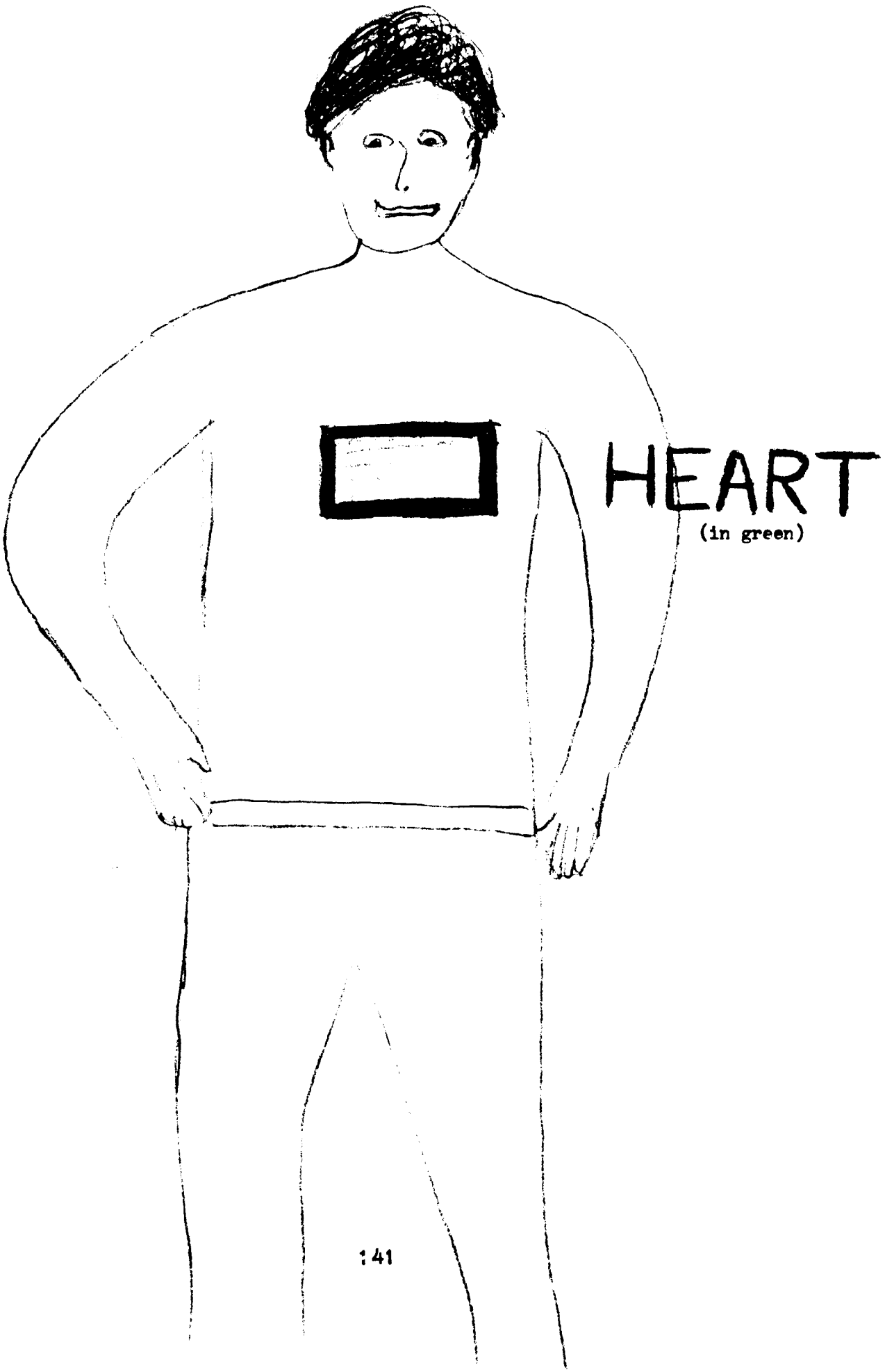
Try this pulsing communication now with the other persons here. Just a few seconds with each. Feel each person completely, sense their presence and send them some positive feelings.

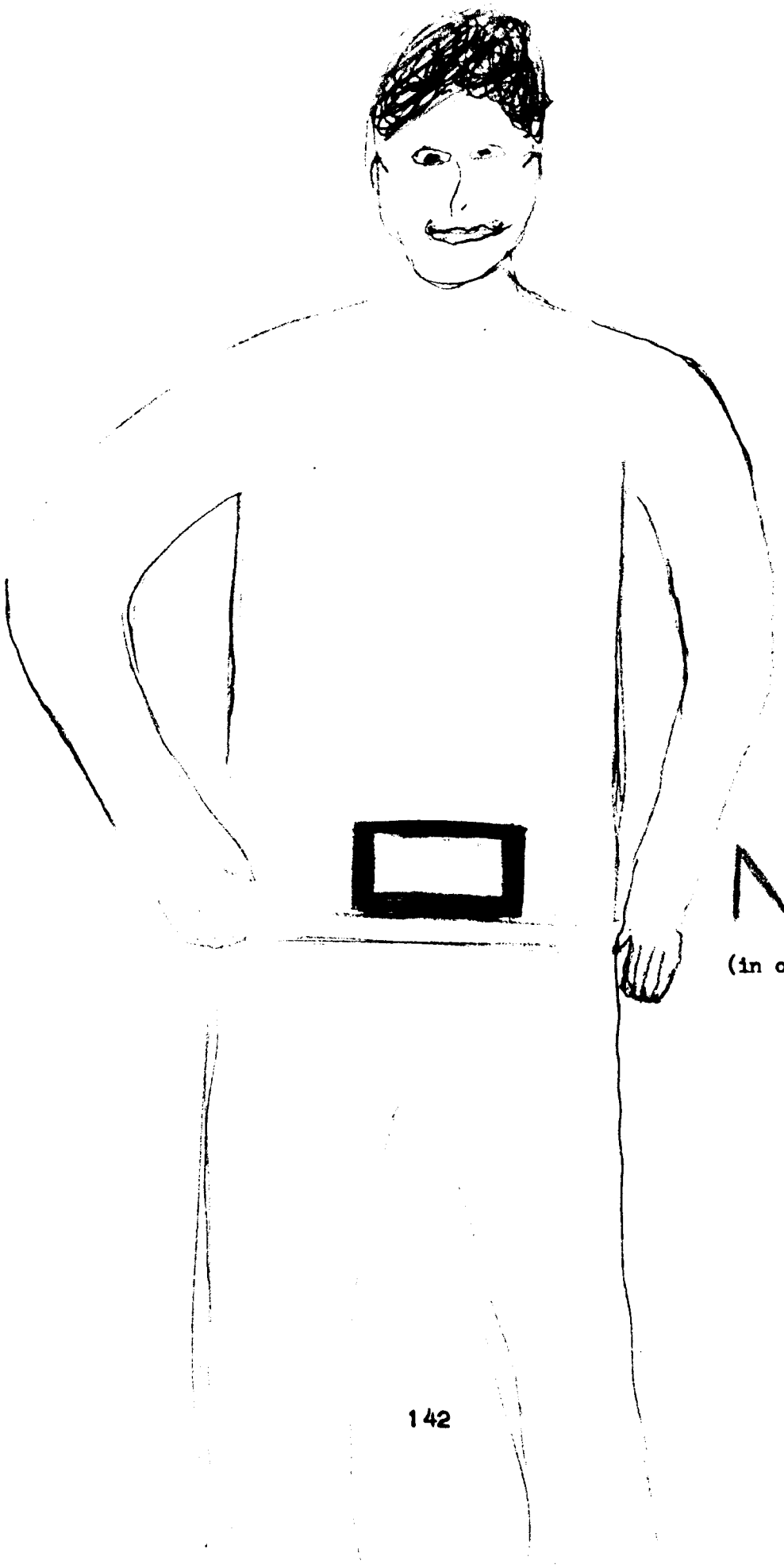
By tuning ourselves to the same rhythm, same pulsing frequency, and this music is helping you to do that, it should be easier for persons to make contact when they're removed from this room. Now, for a final time, sense all the connections with the other people here... and then count to yourself from five to one as you return to your normal state of consciousness in this room... Completely relaxed, yet awake, full of energy, ready to continue the session.

APPENDIX F

Body Part Drawings




HEART
(in green)



NAVEL

(in orange)

APPENDIX G

Target Sheet

Date_____ Session #(1,2, or 3) Number (of target sheet)

Time_____

Person A_____ filled in by E

Person B_____ "

Targets on each trial:

Practice 1	"A", "B", or "SELF" filled in here	(feedback given)
Practice 2	"	"
Practice 3	"	"
Trial 1	"	(no feedback)
Trial 2	"	"
Trial 3	"	"
Trial 4	"	"
Trial 5	"	"
Trial 6	"	"
Trial 7	"	"

Body part:

Head_____ Heart_____ Navel_____

(one checked by E at end of sub-session)

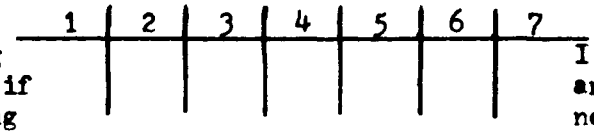
APPENDIX H

Session Questionnaire

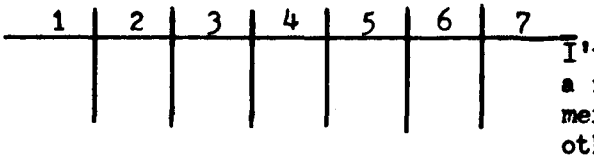
Please fill in your name and answer the 2 questions below.

Name_____ Number and letter_____

1. How close do you feel with the rest of the group now? (mark 1 box)



2. How have you experienced yourself in this session? (mark 1)



NOW RELAX

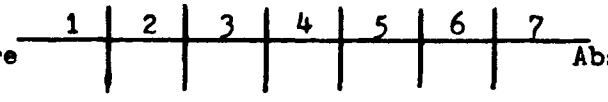
Practice trials: Write down your answers as soon as each trial is complete, as signalled by the bell. You will receive feedback about the correct answer soon after it's over. Relax as completely as you can during the trials.

Practice trial 1:

Did you feel the group was communicating with you on this trial?
(be sure to answer one way or the other)

Yes_____ No_____

How sure are you that they were or weren't communicating with you on this trial? (mark 1 box below) In other words, how sure are you of your answer?



NOW RELAX AGAIN

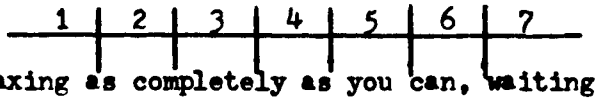
Practice trial 2: Yes_____ No_____

How sure?

NOW RELAX

Practice trial 3: Yes_____ No_____

How sure?



Now turn the page, relaxing as completely as you can, waiting for the bell which will signal the beginning of the first non-feedback trial.

Trial 1:
Did you feel the group was communicating with you on this trial?

Yes_____ No_____

How sure are you of this answer?

Very unsure 1 | 2 | 3 | 4 | 5 | 6 | 7 Absolutely sure

Breathe deeply, close your eyes and relax.

Trial 2: Yes_____ No_____
How sure?

1 | 2 | 3 | 4 | 5 | 6 | 7

Breathe deeply, close your eyes and relax.

Trial 3: Yes_____ No_____
How sure?

1 | 2 | 3 | 4 | 5 | 6 | 7

Take a deep breath, close your eyes, relaxing as completely as possible.

Trial 4: Yes_____ No_____
How sure?

1 | 2 | 3 | 4 | 5 | 6 | 7

Relax and close your eyes.

Trial 5: Yes_____ No_____
How sure?

1 | 2 | 3 | 4 | 5 | 6 | 7

Breathe deeply and return to a relaxed, centered state.

Trial 6: Yes_____ No_____
How sure?

1 | 2 | 3 | 4 | 5 | 6 | 7

Close your eyes and relax.

Trial 7: Yes_____ No_____
How sure?

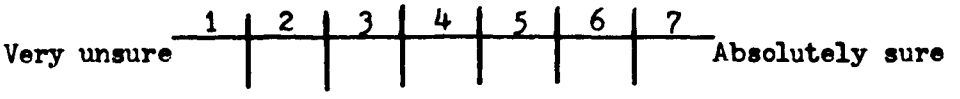
1 | 2 | 3 | 4 | 5 | 6 | 7

Now please answer the questions on the next page.

Overall, which part of your body would you say felt most contact from the group? (check one)

Head area____ Heart area____ Navel area____

How sure are you of this answer?



Which aspect of the communications did you prefer to receive?

Regular trials____ Body part____ Both____

Now check your breathing. Are you breathing mostly through your left or your right nostril?

Mostly left____ Mostly right____ About the same____ Can't tell____

If you can, state how you sensed the impressions from the group:

Other comments:

Now please seal this questionnaire in the envelope and return to the group. Thank you.

APPENDIX I

Short Response Form

Since your full questionnaires will remain sealed until the conclusion of the entire study, if you wish to check your responses later this evening, please copy them down here from the questionnaire and keep this copy out of the envelope.

1- ___Yes	___No	5- ___Yes	___No
2- ___Yes	___No	6- ___Yes	___No
3- ___Yes	___No	7- ___Yes	___No
4- ___Yes	___No	Body part:	

APPENDIX J

Individual Scoring Sheet

Name_____ Date_____

Number and letter_____ Group type and number_____

Month and day of birth_____

Goat? ___Yes ___No

Practiced regularly or often? ___Yes ___No

Eaten in past two hours? ___Yes ___No

Pre-session closeness rating_____

Pre-session mood rating_____

Session closeness rating _____

(rating on question 1 + (8-rating on question 2))

Trials:

#	Target (Yes or No)	Perception	✓if correct	Assurance rating	For high (5,6,7) assurance, ✓ if correct, X if not
1					
2					
3					
4					
5					
6					
7					

Deviation score: High assurance deviation score:

Body part:

Target	Perception	✓if correct	Assurance rating	High assurance

Preferred type of impression:

Regular trials____ Body part____ Both____

Breathing:

Left___ Right___ Same___ Can't tell___

Total Deviation Score: Total High Assurance Deviation Score:

How impressions sensed:

Scorer 1___(signature)_____

Scorer 2_____"_____

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