THE CASE FOR TELEPATHY AS REVEALED IN SLEEP RESEARCH FINDINGS

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Parapsychological researchers no longer need to concentrate their efforts on proving the existence of the phenomena in question. The case for paranormal experiences has been established. It is rather the primary concern of today to find out what the specific psychological conditions are under which these phenomena occur.

This situation is particularly true for studies of telepathy. Telepathic transference has been demonstrated beyond doubt in various research areas. Evidence comes from numerous well-authenticated reports on spontaneous experiences, from innumerable quantitative experiments, and from many controlled qualitative investigations. But these impressive results, obtained by different research strategies, cannot conceal the fact that in many experiments, although designed with great methodological care, the telepathic hypothesis could not be verified. Not rarely, such "failures" have been explained by referring to the elusive nature of telepathy, by stating that the right moment was missed or by making the point that the artificiality of the experimental situation had inhibited telepathic transfer.

These explanations are somewhat paradoxical. At best, they demonstrate the present gaps of our knowledge of telepathic transfer. If, on the one hand, we can be sure of the existence of telepathic phenomena, then, on the other hand, it should be theoretically possible to track down the specific conditions producing telepathic transfer. In other words, there should be an optimal experimental design which increases the probability of telepathic occurrences.

One of the conditions favoring telepathic induction seems to be the sleep state. This assumption has already been suggested by analyses of spontaneous experiences: approximately 50 percent of telepathic events have been reported to have occurred in dreams. (Sannwald 1959/60). Recently, Eisenbud (1976) challenged the assumption that a dream is particularly psi-conducive. According to his opinion, this notion is a surprisingly weak foundation and "by passing from paper to

paper it seems almost to have achieved the status of an established truth." He rather holds that "paranormal dreams occupy at best only a narrow band of the broad spectrum of psi functioning."

Eisenbud's provocative point raises an interesting issue. Although there can be no doubt that telepathy does take place during altered states of consciousness, as demonstrated widely by the evidence at hand, it may well be that the dreaming state is not the most favorable condition for the occurrence and detection of paranormal phenomena. At least, there is one factor which may render a telepathic communication more difficult during dreaming than during waking: the primary process activity of dreaming may sometimes inhibit telepathic transfer rather than encourage it, or it is masking the telepathic stimulus in such a way that it cannot be easily detected. Aside from these considerations, telepathic induction of dream content has been a promising area of research. Parapsychological research profited by the methodological progress of experimental sleep research. By recording brain waves and eye movement activity continuously throughout the night, the various sleep stages of the percipient can be identified and telepathic transfer can be coordinated with those stages of the subject's sleep that most likely go along with vivid dream activity.

The experimental approach to the study of telepathy and dreams entered a new stage when, in 1962, a dream laboratory was established at the Maimonides Medical Center. Owing to the systematic investigations of Ullman, Krippner and Honorton, a standard procedure for telepathic dream experiments was developed. The standard design involves elimination of sensory cues and inadvertent communication, preparation of a suitable target pool, systematic collection of telepathically induced dream material, and refined evaluation techniques. One advantage of the Maimonides group was that research progressed along the same lines. Thus, they were able to replicate some of their results and variation within the standard design led to stimulating findings. Outside this laboratory, unfortunately, only a few experiments have been carried through utilizing comparable designs.

It is not the purpose of my paper to review the results accumulated by these experiments, as I assume that you are familiar with them. I would rather like to focus your attention on some aspects and conditions which seem to play an important role in telepathic sleep experiments. I have tried to bring together those considerations which researchers usually integrate into the discussion of their results. These concluding passages of published articles reveal remarkable perspectives of future research. It is a regrettable fact, however, that these

perspectives are rarely systematically incorporated into subsequent designs.

The Participants in Telepathic Communication

What, precisely, are the preconditions of agent and percipient, which stimulate a telepathic transfer? This question, although intensively investigated and discussed in parapsychological research, at present cannot be answered conclusively. The only thing we know is that there exists a set of conditions, which seems to favor telepathic communication. As far as the percipient is concerned, such conditions are:

—reports on spontaneous paranormal experiences
—a positive attitude towards parapsychological events
—emotional stability
—extraversion

If a subject is going to participate in sleep experiments, in addition to the above mentioned criteria, he should be a strong imager and a good dream recaller and his defense structure should not be too rigid.

Mainly the last point is extremely important for a favorable outcome in telepathic dream experiments. Ullman and Krippner (1970) have suggested that sometimes motivational factors may have accounted for the absence of a telepathic effect, as conscious or unconscious resistance to telepathic intrusion may have become operational. This observation is illustrated by one of their unsuccessful subjects, who afterwards wrote the following comment: "The ESP experiments were a great threat to my equilibrium. I could not have allowed myself the open awareness that was needed. I had the feeling of sabotaging the experiment because of fear of losing control, by allowing an impact from another person."

It is a well known fact from laboratory sleep experiments in general that the experimental situation tends to awaken stress reactions in the participating subject. Being asleep is a highly vulnerable state and implies a great deal of trust in the experimenter who observes the ongoing activity and applies above all technical apparatus. Superficial compliance of the subject often conceals deeper underlying anxieties and resistances, only coming forth after the experiment has started. Indications of stress reactions are extended delay of sleep onset, inhibition of dream recall, or incorporation of the experimental situation into dream content. Particularly the dreams themselves provide insights into the motivations concerning participation in the

experiment. Prevailing themes of such dreams are anxieties and resistances directed towards the experimenter, the experimental equipment and the subject's own behavior in this situation.

In parapsychological experiments, the expectation of telepathic induction may even increase anxiety responses. This factor has to be taken into account by establishing a positive relationship between subject and experimenter and by making the subject familiar with the experimental procedure as far as possible. So far, there were only some few dream experiments where some of these aspects were considered. Ullman and Krippner asked one subject to select his own agent, and Globus (1965) selected a couple of friends, who were ESP believers, to act as agent and percipient. Further improvement of experimental results may be achieved by preparing a subject more intensively for the experiment. This may be achieved, for instance, by explaining the monitoring of the physiological variables and by making the experimental set up clear. The offering of a reward for hitting a target may be an additional incentive, as has been demonstrated in sleep experiments where subjects had to give a behavioral response to stimulations below waking threshold.

In many parapsychological experiments the personality structure of the agent was not considered to be important for a subject's successful psi-performance. In sleep experiments, however, the role of the agent may be of more importance than previously recognized. It seems desirable, if not necessary, that the agent should have a positive attitude towards the subject and that he should be able to create an atmosphere of mutual trust. Of particular importance, however, is the ability of the agent to identify with the respective target material at a given moment. Many incidents have demonstrated that the percipient may pick up aspects of events in the agent's life not connected with the formal target. The Maimonides group claimed that the agent has to make the stimulus a dynamic part of his conscious processes. To achieve an assimilation of such a kind they used multisensory target material. Hall (1967) on the other hand, selected target themes which the agent had to act out pantomimically. The advantages of such procedures are evident; they should be incorporated into every experimental design. Everybody who has had the chance to be an agent for telepathy knows how difficult it can be to concentrate on a target which has been randomly selected. An agent may achieve a dynamic integration of the target by utilizing all his possible ways of perception, action, cognition and emotion.

If we consider the favorable conditions for agent and percipient separately, we run the risk of overlooking the fact that every telepathic communication involves a specific dyadic interaction characterized by

mutal emotional involvement. An assessment of the dynamic relationship between agent and percipient seems to be important, as we have reasons to believe that a previous emotional commitment plays an essential role in telepathic transfer. In telepathic sleep experiments, the artificiality of the laboratory setting does not facilitate an emotional engagement, particularly when the experimenter acts at the same time as the agent. This double function of the experimenter has been economical, but it is accompanied by a confusion of his roles. It may be worth while to employ in future experiments one experimenter who only takes care of the monitoring procedure, and one agent who is closely related to the percipient. By selecting couples who alternately take the role of agent and percipient, the experimental setting could lose some of its anxiety provoking character.

The Target Material

In telepathic dream experiments the target material has to serve several functions:

1. The target should possess metaphorical qualities in order to facilitate its incorporation into dreaming. Although cognitive elements are by no means absent in dreams, the predominant dream characteristics are metaphorical. Following this supposition, which interestingly enough has not been questioned so far, in most of the experiments art prints were used as targets.

2. The target has to be clear cut so that its appearance in dreams can be detected unequivocally. As telepathic stimulations have to be evaluated as either hits or misses, this claim has to be emphasized. The Maimonides group used targets which were simple, distinct in details and vivid in colors.

3. The target has to be unique enough that the probability of its occurring in normal dreaming is rather low. Therefore, the target should allow an estimate of the probability of its natural appearance in dreams. The best solution is to utilize a dream series of the experimental subject as a control.

4. The target should possess an emotional cue function for the percipient. The more a target is in tune with the actual drive state of a percipient, the better he can assimilate it into dreaming.

5. The target also has to fit into the psychological condition of the agent. As it is highly probable that a percipient gets in touch with the stimulus as it is perceived by the agent rather than with the stimulus itself, it is necessary that the agent be able to assimilate the target at the given moment of intended transfer.

These criteria for suitable targets have not been emphasized equally.

Particularly, the actual drive state of percipient and agent has been neglected with regard to target selection. This is mainly due to the strict experimental procedure, where a target is selected by chance out of a great possible number. In sleep research, a number of experiments were conducted testing subjects' ability to react to sensory stimuli presented during different stages of sleep. The findings indicate that those stimuli which are unfamiliar and which have cognitive and emotional cue-functions have the greatest chance to elicit a response. It is this specific cue-function which may also play an essential role in telepathic transference, although we may be wide of the mark in assuming that telepathic communication can be compared to sensory transfer. At any rate, it would be worthwhile to test this hypothesis by tailoring the targets more specifically to shared emotional states of agent and percipient. It is true that the art prints that have been used as targets so far, do possess a potential emotional cue function, but they must not necessarily be congruent with the emotional state of the individuals involved.

Time of Telepathic Stimulation

It has been widely assumed that the elaboration of telepathically received stimuli preferably takes place during REM-sleep. This assumption is based on the findings that spontaneous psi reports frequently are connected with metaphorical dreaming and that REM-sleep represents a more primitive sleep state where archaic communications may have their origin. Due to these presuppositions, subjects were predominantly awakened from REM-sleep in order to obtain telepathically induced dream material. Telepathic stimulation, however, has not been varied systematically along the time dimension. In those experiments where the same target was used for awakenings of one night, the target was represented in the agent's mind from the time he first looked at it. In those experiments where a separate target was used for each REM-period, the intended transfer usually was started shortly before the supposed onset of another REM-period. Although a substantial number of experiments has demonstrated that the elaboration of a telepathic message can take place during REM-sleep, there is no convincing evidence that the stimulus was perceived at the same time. Telephathic transfer and incorporation of the telephatic stimulus into dreaming may not occur simultaneously.

There are some reasons why perception of telepathic material could take place outside REM sleep. Studies of different kinds of mental

activity during sleep have suggested that NREM mentation (stage 2 EEG) persists through the night. NREM mentation being more thoughtlike, more conceptual and more composed of temporary life events, resembles the unfocused background activity of waking states (Rechtschaffen 1963). Because of these findings, REM dreaming cannot be regarded as an isolated experience, but rather emerges from mental activities with secondary process characteristics. NREM mentation, carrying mainly recent memory traces, like day residues, thus contributes to the constructive elements of REM dreams. As we do not know whether an agent actually transfers a target image, or a concept of the image, or his thoughts about the image, it may well be that a sleeper receives a thoughtlike message about the target during NREM sleep which later enters REM dreaming by being transformed metaphorically.

There is another reason why REM sleep itself may not be the optimal state for telepathic perception. From subliminal sensory stimulation during REM states we know that the percentage of direct stimulus incorporations into dream content is rather low. Dement and Wolpert (1968) stimulated subjects during REM sleep with lights, tones and sprinkles of water. Subsequent dream recall showed incorporations of light in 7 percent, of tones in 23 percent, and of water in 43 percent. Berger (1963) applied multiple stimulations during REM sleep with neutral and meaningful names. By using a rather soft criterion for estimates of similarities between stimulus and dream elements, he found stimulus elaborations in 56 percent of dream reports. The rather low percentage of sensory stimulus incorporations into REM dreaming may be connected with awakening thresholds. With regard to auditory stimuli, waking threshold is lowest at sleep onset and during stage 2 EEG, as compared to deep sleep. Waking thresholds during REM sleep vary considerably, probably due to the sleeper's involvement in dream experiences. Although telepathic stimulation cannot be equalized to sensory stimulation, it is possible that in REM sleep a lower vigilance to external stimuli also extends to telepathic signals. This would mean that a telepathic transfer during REM sleep could be inhibited if the target has not a specific cue-function and does not match with the ongoing themes of dream processes.

These considerations are very speculative but they can be put under investigation by varying onset of telepathic transfer systematically along different sleep stages. Accordingly, recall of sleep mentation should be obtained from various points of the sleep cycle. The purpose of such variations of transfer onset would be to learn more about the qualitative components of telepathic transfer.

Incorporations of Telepathic Stimuli

The demonstration of telepathic effects in dreams is often rendered difficult because of the processes of dream work. As it is evident from the phenomenology of dreaming, recent or past memory traces are rarely illustrated in dreams in a complete and realistic fashion. As compared to real life situations, memory material is generally distorted, more or less disguised and arranged in a different context. External stimuli presented during REM sleep also undergo these alterations. Incorporations of sensory stimuli can be categorized along the dimension of complete vs. fragmentary representation, and along the dimension of undisguised-inferential-symbolical.

Incorporations of the experimental situation into dreaming have been investigated in several sleep research studies. Whitman et al. (1962) found that one third of the laboratory dreams were dealing directly with the experimental situation, whereas another third of the dreams represented elements of the experimental setting in a disguised way. Dement et al. (1965) analyzing a large number of dreams recalled in the laboratory, found in 12 percent complete depictions of the experimental situation, in 10 percent partial undisguised representations, and in 15 percent inferential elaborations in a thinly disguised manner. From these incorporations of day residues into dreams one could expect that a telepathically received stimulus should also be completely or partially represented with reasonable frequency. Analyses of spontaneous case material have already shown that a substantial percentage of paranormal dreams can be categorized as realistic representations of the real event. Ullman and Krippner emphasized variability of telepathic stimulus incorporations: "In many instances the telepathic stimuli appeared to be distorted; in other cases, however, they remained quite free from change and emerged from the dream report in an undisguised way."

At present we cannot predict the conditions under which a telepathic message is elaborated either directly or symbolically. But the same is true for representation of day residues in dreams. Mode of incorporation probably depends on several factors. One has to consider at least the content of the telepathic message, the impact of the telepathic stimulus, and the percipient's state of mind in which the telepathic cue is received.

There is one more aspect which may contribute to the solution of these open questions. So far, the wide range of individual differences apparent in all sleep and dream parameters has not been accounted for in telepathic sleep experiments. Subjects differ in the way they incorporate sensory cues into sleep experiences. It should be possible

to select those subjects for telepathic dream experiments who, aside from the above mentioned criteria, have demonstrated in pretests that they are able to incorporate sensory stimuli in a rather complete and direct fashion. By pretesting various styles of reaction, one may be able to predict patterns of telepathic representations as well.

To summarize my reflections on telepathic dream experiments: after the case for telepathy has been established experimentally, predominantly by the sleep experiments of the Maimonides group, there is a chance to probe deeper into the specific conditions favoring telepathic transfer. Starting from our present knowledge, I would suggest multivariate designs, based on the standard procedure. These multivariate designs should take into account:

—a positive emotional relationship between agent and percipient;
—target material that is tailored to shared emotional states of agent and percipient;
—systematic variation of transfer onset and awakenings during various sleep states;
—response styles of stimulus incorporations.

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DISCUSSION

SERVADIO: In my opinion, the most important passage in your paper was where you say, "If we consider the favorable conditions for agent

and percipient separately, we run the risk of overlooking the fact that every telepathic communication involves a specific dyadic interaction characterized by mutual emotional involvement." But this, ultimately, it seems to me, destroys the very concept of agent and percipient in telepathy and of telepathic transfer. This is a concept that has, really, very little substance nowadays, I think. Then you say: "We do not know whether an agent actually transfers a target image," and we all know that Vasiliev tried his best to transfer something from A to B, screening this possible something, but what happened, happened all the same. In the analytic situation, when we have a psi phenomenon, there is no more analyst, no more patient. There is something that unites two human beings. So I think that many difficulties in these experiments that you have so ably reported, are due to this fact—that we still, in spite of everything stick to the idea that something is transmitted from A to B.

STRAUCH: The point is that, in telepathic sleep experiments, we are always in between two demands. On the one hand, we hope to follow a strict experimental procedure; on the other hand, we realize that here is a chance of a spontaneous dynamic interaction. I remember there was a pilot experiment that Montague Ullman reported, where agent and percipient were both sleeping and the mutual dream reports were compared. I think this was a very interesting approach, but of course, it's very difficult to adapt this approach to an experimental design.

BRAUD: I'd like to reinforce your suggestion that we look at different stages of sleep to find if, in fact, dreams are more psi conducive than other stages. I think we've been assuming without any evidence, really, that dreams are psi conducive. All we can say safely is that *sleep* is. Perhaps, if the kind of model that Chuck Honorton and I have been working with is valid, then dreams themselves might provide a lot of noise which would be absent in other stages of sleep. I do have a question, though, about a point you raised in connection with target material. You suggest that we choose targets that are congruent with the needs or the drives of the percipient. If we do this, we run the risk of a methodological problem involving response bias, because one will certainly tend to mention a lot of content that's congruent with the need, and this might artificially inflate our measure of psi.

STRAUCH: Well, I thought about that problem and I was sure that someone would raise that point. By tailoring a target to a specific drive state of the subject, you can choose targets which are nevertheless specific enough in detail. You have however, to be very strict with

regard to the evaluation procedure. The criterion has to be a direct hit rather than a hitting of the theme. The subject has to hit the elements of a target directly.

DIERKENS: I wish to mention something about being asleep as a highly vulnerable state. Of course, it is, and experimental setups have to be quite different, I think, if you use very sensitive subjects or not. Most mediums have too frequent uncontrolled psi occurrences. They are anxious because, too many times, they are just overflowed by those occurrences, and what you should do here is not only to reassure them but to improve their filter, so that they could control the situation. But for other subjects, who are not sensitive, you have, on the contrary, to charge the situation, to lessen the filter and to try to give some emotional charge not anxiety. I was always struck by the difference between psi occurrences. For instance, if I have a psi occurrence, I'm very happy about it, because I have it that seldom. But mediums are bored with it or they find they are depersonalized. Modifications of the filter have to be quite different.

STRAUCH: I agree with you that the subject should, of course, be positively motivated in experiencing or producing psi events. But I was rather concerned with the anxieties I met when I was engaged in sleep experiments. Even if I took care beforehand by preparing the subject for his task, many incidents occurred when this underlying anxiety came forth once a subject was going to sleep, having the electrodes attached and knowing that an apparatus was recording the brain waves. This is an anxiety-provoking situation for a subject who has not experienced these kinds of experiments before.

HONORTON: This is the most useful guide for anyone who wants to do psi dream experiments, that has been put together so far. Certainly, in a sleep experiment, the subject is coming in not just to do a 45-minute or one hour session. He's going to be there all night. It really is very much of a team feeling with the experimenter and the subject and the agent. One thing that I would add to this is, don't use conventional sleep technicians in this kind of study. That doesn't work very well. The experimenter monitor who is doing the interviewing and awakening, is extremely important in terms of providing the subject with the ability to disclose the intimate details of dreams. Also, my impression is, that one of the real problems with any kind of dream research is that it's hard to do systematic studies because it takes so long to collect the data. But my impression is that, in the earlier studies when we were giving feedback to the sender, we were getting more dramatic results in the

telepathy studies. Now this is highly confounded by very talented subjects, but my own impression was that it certainly increases the drama of the situation and the intensity of interest for the sender. And one other thing—in terms of couples or what kinds of pairing you're going to do, I think I disagree with you slightly about that. I think the best pairing in our work involved people who had a very good relationship in the laboratory but didn't necessarily know each other outside the laboratory. Very often you find a married couple who don't want to be *that* close. It's like you'd unburden yourself to the barber or the taxi driver in some ways more easily.

TART: I'd like to reinforce two points. Let's say, this can be a highly dynamic situation, but at the same time there are enormous individual differences. For some people it's a very casual matter to have some electrodes put on their head and their dreams monitored and they don't even really fantasize about whether those electrodes go to a TV set or not. For other people, this is an incredibly threatening kind of situation. Now, we can speculate about this as a contaminating variable, but I realize, on the other hand, we have the way to formalize this as a measurable variable. We can have some skilled judges, psychoanalysts or psychotherapists, say, who look at nothing but the dreams of the percipient, with no reference to the target material, and simply make an overall assessment—this is someone who is quite comfortable in the situation versus this is someone who was quite uncomfortable. Same thing for the thought processes of the agent. An outside judge this way can judge how much discomfort or comfort there was in this situation and we could begin to make differential predictions about how much we would expect the dynamics of the situation to interfere with the free flow of communication.

A second point is that there is another approach that hasn't been tried very much that might be quite profitable. This is based on work I did years ago in using post-hypnotic suggestion to influence the content of stage 1-REM dreams. I haven't seen anything quite like that in the telepathic dream studies. My basic experimental procedure was that before an experimental subject went to sleep for the evening, he or she was hypnotized and instructed to dream about a particular content, spelled out A, B, C and D. Now these were always people I had worked with for some period of time before that. They were comfortable about being hypnotized. They were comfortable having their dreams monitored. The level of direct incorporation of the stimulus material was very high. I ended up using a kind of "count the number of elements that appear" technique, with judges correlating in the .90s on

their scoring of these dreams. This more directive procedure, rather than, "Well, he's sleeping over there, you're looking at a picture in this room, send it," with no more specific ritual or technique specified, might be a very profitable thing to apply here, especially as the training necessary to get people to be comfortable in this situation in the first place, will get around a lot of the dynamic problems caused by the unfamiliarity of the situation.

PARKER: If I can try and pick out a trend that's developing from this conference, it's the need to get away from purely behavioral methods of looking at, for instance, personality traits that agents have, personality traits that subjects have, etc., the need to look at the interpersonal relationship. We need also to look at the intrapersonal experiential state of mind that subjects are in. We need to develop more holistic methods of seeing what's actually going on in the experimental situation, rather than purely behavioristic methods. I'm a great pragmatist and I want to know where do we go from here? Now, how do we actually do this? I have one or two suggestions and I'd like to hear your comments on them.

There are actual scales that have already been developed for measuring things like rapport and empathy. I think we can make use of these. I think we can have audio-visual recording of what's going on in the experimental situation. Anecdotes and comments about relationships between agents and subjects, about already pre-established relationships, don't seem to be particularly useful. I think there's also an interesting point that sometimes people can get stuck in roles. I think we may be able to use some techniques that have been developed by encounter groups. We may have to set up encounter situations between subjects, experimenters and agents before we actually do an experiment.

STRAUCH: I would stress the point that we could use in future experiments a more multivariate procedure. But, for instance, we also would need more complex instruments. It just came to my mind when you said there are scales for empathy. They would only scratch the surface of the situation if you have to fill out a questionnaire how you like the experimenter, because it's my experience that, particularly in those physiological sleep experiments, very deep anxieties come to the surface which the subject cognitively never would have recognized before. Of course, I always used subjects who said they have no problems falling asleep; that they were really keen on doing the experiments; their anxieties only came through after the experiment had started.

BENNETT: I also, Inge, am intrigued by your suggestion that studies be done in the non-REM state for telepathy, but I would like to ask you what change in target material do you think would be necessary? After all, art prints are highly visual; REM dreaming is highly visual. What kind of material would you see in a target?

STRAUCH: I haven't thought about it yet, but I also was intrigued by the idea of trying the non-REM sleep because it has never really been systematically tried.

BENNETT: Would it be something like a linear problem, perhaps?

STRAUCH: Yes. There's one problem which I didn't mention with regard to non-REM sleep and that is that spontaneous recall is rather poor. So you would have to select those subjects who have demonstrated that they are able to recall with a reasonable frequency their sleep mentation. But there are enough subjects who are even able to recall dream-like dreams from non-REM stages of sleep. As far as the targets are concerned, I would try several sets of targets, varied on the conceptual and perceptual range.

SARGENT: I'm very pleased to see that Dr. Dierkens and Professor Tart do consider just how important the individual difference factor is. The question is not, "Is REM sleep the best state?" or "Is sleep generally better than waking?" The question is, "Yes, very well, it may be. But for whom?" There may be some subjects who are delighted to take part in sleep research and others who don't like that idea. There are some people who can sit down with electrodes on their scalp and enjoy it. I sat with electrode jelly on my scalp and saline dribbling down my neck, thinking "What am I doing, sitting here trying to do this?" That's one thing which I think is very important. Professor Bennett has already suggested that there may be differences between the states for different types of target material as well, which is a different idea completely and one which I think you'd also like to get to grips with. But finally turning to Adrian's point, I think before we go into holism, maybe we ought to simplify things. If I were going to be the subject in a sleep research dream telepathy paradigm—if you could get me dreaming in the first place, because I don't recall my dreams very well or very much—if I were going to do that, what I would want would be a fully computer automated setup so I could go in and sleep; I'd be woken up by a computer and the targets would be selected by a computer; they would be slung out through a hole, I could make my ratings and go away. The point is that that would be completely different from somebody who might want to be greeted by lots and

lots of people. I'm very much in favor of boiling it down, for the people who can do it, to just one person in a setup, then perhaps you begin to build on it. Before you go into holism where you have two hundred million independent variables and their interaction, boil it down to the simplest levels if you've got people who like it like that.

HONORTON: Two very brief methodological points. One is that Montague Ullman is now doing dream workshops where he is having people meet at weekly intervals and taking the dream of one person and having the group work on that dream and work out interpretations of it. He is observing what he considers to be some really strong and consistent psi interactions coming up in the context of this type of interpersonal situation. This might be a very good one from which to draw participants for experimental studies. And secondly, I don't think it's going to be very long before we'll be able to use telemetry to monitor people in their own homes, so that they can awaken automatically and give a dream report to a tape-recorder. Given what we know about the differences between home recall and laboratory recall, this could be a very important advantage.

PARKER: I'd like to make a few comments about holism. I think we can overrate what we mean by experiments. Experiments, really, in the end, are just a more definite ordering of everyday experience (at least, in psychology). If we take it too far, we can remove the important things and completely denude what is actually important to getting results in parapsychology. I think if we're going to try and reproduce psi phenomena in the laboratory, then we have to have real relationships and if we're going to try and measure these, there's no problem. There are scales available, and they are quite scientifically respectable; they do give predictive results, and they have been objectively verified, so I don't think you need worry about putting your scientific reputation at stake by launching out into this area.

STRAUCH: Regarding future experiments, I think I would put all my effort into not only tailoring the targets to the subjects, but tailoring the whole situations to the people involved in the experiment, because I'm really intrigued by the idea: how does this telepathic stimulus (if it is a stimulus) travel? For instance, which route, which "highway" does it take? And this needs different creative holistic case studies to probe into the various hypotheses—how a message travels.

SARGENT: I said at the end I'd like to do this myself if I were going into the laboratory; go into there with lots of computers. I said, for people who like it. I said, it's preferable because it's simpler, except

most people wouldn't like it like that. Do it with people who like it like that! It's potentially simpler. If you've got people who like it like that, it's much better than holism.

TART: This discussion has made me realize how much I want to reinforce one point. Psi dream research, so far (I'll overstate this slightly), has been entirely a case of "Dreams are wonderful; ESP is wonderful—let's hope they go together." So someone cuts his moorings adrift at night as he goes to sleep—you hope somewhere the ship of dreams will drift near the cargo loading point and maybe we're lucky. We have to begin to do something to gain more active control of this particular altered state of consciousness, such as the hypnotic procedure I mentioned earlier, such as some other kind of training procedure, in the hope that we get a more direct and controlled effect, rather than simply hope that somehow the two things will get together. It really represents the sad state of the art of combining altered states and psi research at this point.

PARKER: I think it's important to measure more carefully what's going on in interaction between people during experiments, the interpersonal aspects.

SARGENT: But, as I think you know, you're running the risk of losing significance and we have a huge matrix of independent variables, and I say the simpler you get it, the better. You're saying, if you simplify it, it becomes unrealistic. I say for a lot of people, particularly for my subjects, it's not true. They like me to go away some of the time. Providing that they can't cheat, I'm happy to do that.

LESHAN: On the concept of individual tailoring of experiments, I'd like to recall a remark of Eileen Garrett's in terms of her own experience with experimenters. She told me once that the way that the psychic worked, the way that psychic ability worked, was through an individual path winding through the forest. Each psychic went on his or her own path through this forest to the end and the experimenter came along and drove, by engineering methods, a broad straight highway through the forest and demanded that the psychic follow it, and then said, "how sparse are the results." She also commented on different kinds of targets, and she was a visual person, but she said, "I knew a psychic once who was an auditory person and we once worked with a scale of targets for this person—and I don't remember much about it except that at one end was the gaiety and joy of Hayden's *Creation* and at the other end was the sadness, the depression."

HONORTON: In response to Charlie Tart's suggestion, we did do some pilot work with hypnosis where the subject and the agent were hypnotized prior to the session. The subject was given post-hypnotic suggestions to dream about the hypnotic dream that the agent would be given with the subject's REM periods. We obtained results, but they weren't any better than what we're getting without hypnosis.