

CLOSING REMARKS

HOYT EDGE: I would be remiss if I did not begin these concluding remarks with a note of appreciation to the Colys for all they have done in setting up this conference. My toast to you last night during the reception was more detailed, but to make sure our thanks becomes an official part of the Proceedings, let me once again express the appreciation of all the participants, as well as the observers.

Friday afternoon I had a tour of the building of the Institute for Parapsychology, and we visited the attic. Among all of the boxes of data from experiments over the many years, there was a collection of old Cox macro-PK machines. These were marvelous and unique creations. Also, there was an apparatus built for an automated gerbil experiment. It looked like a miniature ferris wheel that the gerbils rode, cycling around until it came time for them to participate in the experiment. I came away from the attic, not only with a fuller sense of history but in relationship to the theme of this conference, with the conviction that psi methodology has changed.

There is no doubt that over the last twenty years, we have become much more sophisticated technologically in our experimentation. However, Ed May has pointed out to us today that technology is a mixed blessing. Sophisticated technology allows us to explore more sophisticated systems in psi research; computers allow greater ease and complexity in statistical analysis, as well as automated control of the experiments. On the other hand, Ed warned us that we face the danger of using technology without fully understanding its limitations, especially when we use "off the shelf" equipment. As Ed pointed out, technology is not always the answer in psi research.

However, when we get down to it, the most sophisticated instrument that we use or can use in psi experiments is not a product of technology at all; rather, it is the human organism. William Braud gave us good reason to pursue research in the distant mental influence on living systems, including, among others, the effect on autonomic nervous system activity. His research has shown that the effects of distant mental influence are relatively reliable and robust. The implications of this research are far reaching, especially since the effects are able to be specifically directed on particular aspects of the living systems, and the influence is bi-directional.

As a parenthesis, let me say that I have been impressed with William's research for a long time, because I feel it is an example of the development of a specific research program. It may be that we do not have an over-arching explanation for psi, but we do have sufficient conceptualization to drive sophisticated, progressive and successful research programs. To me, this is an indication of our maturing as a science.

My further concluding remarks should not be taken as a summary of the Proceedings. I would fail to capture the subtlety of papers and have to leave out a wealth of material if I attempted such a summary. Rather, I plan to focus on those areas where ideas from papers seem to cluster. There was convergence of ideas and emphases in the various papers, and it is these idea clusters which I would like to summarize. Let me list six of these ideas, or idea clusters, and briefly talk about them.

Idea 1. We can learn things from other fields.

Victor Adamenko suggested that we may be able to understand precognition better by using conceptualizations from the Russian physicist Kozyrev. My physics is insufficient to understand everything that Victor talked about, but he argued that Kozyrev's notion that time has physical properties can become a way that we can bring our understanding of precognition into physics. He talked about an experiment done by Kozyrev in astrophysics which displayed these principles.

In the past, Chuck Honorton has taken meta-analysis and applied it to Ganzfeld research. In the paper at this conference, he summarized his use of meta-analysis on published precognition studies. I will refer a bit later to this analysis, but at this point, it is important to see that Chuck was able to take a methodology employed in other sciences and apply it creatively and helpfully in parapsychology.

Rex Stanford argued that a major reason we have not made more progress in some areas of Internal Attention States research, especially hypnosis research, is that psychologists know so little about what is really happening when a person is e.g. hypnotized. Without an advance in understanding Internal Attention States in psychology, parapsychology will probably not be able to advance much farther in our own internal attention research. The lack of progress in other areas of science, in other words, bodes ill for parapsychology. Yet, Stanford pointed out that there is material in psychology from which we can learn. For instance, there is good data on the phenomenon of self-handicapping, when someone engages in behavior which secures less than optimal performance. Self-handicapping may be displayed in

parapsychology, for instance, by people who fear the implications of having psi ability. Rex urged us to learn about the problem of self-handicapping and how the literature in psychology tells us how it can be mediated.

Idea 2: Other fields may learn a few things about methodology from parapsychology.

Although we are heavily dependent on research in other fields of science for our methodology, it may be that progress we have already made or may make in the future could benefit other fields. For instance, Jessica Utts has made good progress in proposing statistical techniques that could help solve problems in other areas of science. These statistics have focused on the problems involved in judging free response material in parapsychology. Two traditional techniques have been used, atomistic analysis and holistic analysis. The problem traditionally involved in atomistic analysis is that there are many features of targets which cannot be categorized on the atomistic list used to evaluate the targets. Further, gestalt features of a response are often more informative than atomistic features. To solve these problems, Jessica has used the statistics of fuzzy sets, which incorporate vague information into the analyses. The main problem involved in holistic analysis, on the other hand, stems from the use of decoys. Often they are too close to the target and therefore a judge cannot discriminate the target picture from the decoy. In order to assure that there is a qualitative difference among the targets in the pool, Jessica has used cluster analysis to separate all of the potential targets into distinct groups. Once a target is randomly chosen, decoys from other groups are then chosen as decoys to insure the qualitative distinctness of the pictures in the judging pool.

Bob Morris pointed out that parapsychologists are imprecise in describing the volitional activities of subjects. One reason for this is that the concept of volition is theoretically vague and some contemporary philosophers even argue that volition is an unuseful notion. Yet it seems fundamental to psi research. Parapsychologists tend to assume that volition is present in the experiment but often we don't focus on it, and we don't realize all of the ways in which volition can be present in the experimental situation. Along with Richard Broughton, Bob urges us to pay more attention to the notion of volition. Furthermore, he suggests that if we can understand better the role of volition in the performance of psi tasks, we may contribute to the general psychological literature in this area, especially since performance psychology—such as sports psychology—takes volition to be central.

Idea 3: Results in parapsychology have been more robust than we may have thought.

Chuck Honorton's paper on the meta-analysis of precognition showed us that the overall results are consistent and robust. The effect size across the precognition experiments is as good as in many areas of psychology and in medical testing of drugs. It seems to me that Chuck's work in meta-analysis should put to rest once and for all the critic's objection that there is no repeatability in parapsychology. The rate of replication may not be as high as in the physical sciences, but it appears to be as good as in most areas of psychology.

Although parapsychology has not made the progress that it had hoped—in that we have not answered all of the questions that we wanted to, nor have we moved as quickly as we had hoped to—Sybo Schouten pointed out that progress is better measured by looking at other areas of science dealing with human nature and comparing our progress with theirs. His analysis showed that they are also slow in development, and when you take into account the relatively small levels of funding and the minimal numbers of researchers in parapsychology compared to psychology, our relative progress should be considered on a par with psychology's. Schouten mentioned three additional criteria that we can use in measuring our progress. The first is that we have progressed by rejecting some old ideas. The second measure of progress is whether we have changed opinions in society about our field. We could use more progress in this area, but at least there has been some change. The third additional criterion of progress is that science moves from a collecting phase, one in which data are merely collected, to a cumulative stage, where data is not merely collected but where one piece of data builds on the next. Although parapsychology is still a collecting science rather than a cumulative science, in general the same can be said for psychology.

Idea 4: Parapsychology works in a system.

This idea is admittedly vague, but what I have in mind is the general idea that our phenomena are understandable only in terms of the relationship within some sort of system. For instance, John Palmer discussed the experimenter effect and urged us not to ignore this effect nor give up on our understanding it; rather, we should attempt to test it directly. In the past, insofar as we have attempted to get at the problem, we have wanted to test whether or not it is the experimenter or the subject who has contributed to psi. Palmer suggested we should

expect both experimenter *and* subject to contribute, although one may contribute more in a particular experimental condition. The aim of our experimentation should be to see how much is contributed by each rather than to attempt to eliminate the contribution of one or the other.

Based upon a psychoanalytic interpretation of self, Bill Roll employed the concept of a "larger self," as well as the idea of a "long body." Employing some philosophical arguments and using the data of spontaneous cases, Roll argued that we ought to understand ourselves as emplaced as well as embodied, not only in the material body but in the environment with which we come into contact. Roll suggested that if we engage this "long body," which is a system incorporating both participant and agent in ESP tests, we should get more robust results.

Ramakrishna Rao recommended that we employ the "fusion" hypothesis rather than the "exclusion" hypothesis. Traditionally, parapsychologists have been concerned with separating psi from all other modalities, thinking that if the involvement of sensory modalities in the experiment has been eliminated, what is left would be psi. Rao pointed out that psi may work *in tandem with* sensory modalities, and research, at least in its initial phases, might be more successful if we employed conditions which allowed sensory modalities to work also. Then we might be able to find out how much psi enhances the reception of information.

Finally, Richard Broughton suggested that in serving the needs of persons, psi may blend in seamlessly with normal activities.

Idea 5: We should pay more attention to individual differences.

In his paper on Internal Attention States, Rex Stanford pointed out that individual differences are especially important. If we understand how internal attention states work, we can take advantage of these individual differences in our psi tests. Sybo Schouten further argued that unless we take into account individual differences, our experimentation with unselected subjects may not be productive.

As an aside, I want to mention here that in general, although there were some dissenters, the participants seemed to be in a good deal of agreement in recommending that we work with selected subjects. Even some who have not worked with selected subjects became more convinced that they should do so, at least until we know more about the effect of individual differences on psi testing.

Idea 6: We need to go back and ask for fundamental definitions.

At the Parapsychological Association Convention in Montreal, the Edinburgh group gave several papers showing their interest in defining more precisely some basic terms in parapsychology, such as what a target is. Bob Morris presented a paper here in which he was concerned with understanding the notion of volition better. Indeed, there has been a general emphasis—by Broughton, Morris, and Braud, among others—that we need to focus more on needs/volition in the experimental situation. One of the problems in understanding how volition works in psi tasks is that our experimental write-up has been sloppy in describing in any precise way how volition may have played a part in the experiment.

Finally, Richard Broughton suggested that we should go back to the very notion of psi and ask what its purpose is. He suggested that it must be a product of evolutionary development and should therefore have survival value. That value may not be a defensive value, but in some sense it should be need-serving. Perhaps psi serves us in a general need for well-being. If this is so, Richard suggested that we should make sure that psi tasks are challenging, and we should pay more attention to the research environment.

Let me conclude these remarks by making a general statement. This could be a time when parapsychologists are downcast and pessimistic. We are losing the lab in Utrecht; there are problems in Germany; the effects of the negative NRC Report are yet unknown. There are other signs, however, that are much more positive. In the first place, the Parapsychological Association commissioned a response to the NRC Report. This excellent rejoinder, written by Palmer, Honorton, and Utts—three of our panelists—is receiving some public play in the media. The New York Academy of Sciences has asked Chuck to write a report about the controversy. The excellent article in *Brain and Behavioral Sciences* has given a boost to the field. Also, the Office of Technological Assessment held a conference last month in Washington to evaluate psi research. The panel included several parapsychologists and several skeptics, including the two who wrote the parapsychology section of the NRC Report. In this kind of forum, in which one had a chance to ask penetrating questions and respond, parapsychology was able to demonstrate how strong and robust the field is. In sort, we came out smelling like roses.

In keeping with this general trend, I sense a real optimism at this conference. Of course, the optimism is tempered by experience, but nevertheless there is optimism and there is pride.

The conference ended twenty years ago with a great deal of optimism. Although we have not made all the progress that we had hoped in those twenty years, we can conclude this conference by being positive about what we *have* done. Although our attitude is wiser and more realistic, based on the work of these last twenty years, nevertheless we can be optimistic about and proud of our field.

LISFETTE COLY: Well, I am aghast to have to follow that very stirring speech, Hoyt, but the Parapsychology Foundation would like to thank you for your participation in this conference. Of course, our panelists certainly deserve our thanks for their stimulating papers and their lively discussions. The observers—and some of you have also traveled a long way to attend this conference—have contributed so much to making these meeting a success. We thank you. The Foundation is particularly grateful to our very good friend and capable moderator, Dr. Hoyt Edge, and I think he deserves a round of applause. A conference with discussion periods such as ours can easily unravel, but he always kept us seemingly effortlessly in order, with a smile, and we are very grateful to him.

I am going to digress for a moment to share with you on behalf of the staff of Parapsychology Foundation and the family of Eileen Garrett our deep appreciation of the warm welcome we have received here in Durham. In a sense it has been a feeling of coming home, despite the fact that we do not visit nearly enough. I hope we shall be able to remedy that in the future. Thank you all.

As we close this conference we would like to leave you with one more reference to a quotation in that conference held 20 years ago which we feel is worth repeating as we continue our various methodological approaches to the questions raised by psi. There was an exchange between Jan Ehrenwald and George Owen in which Jan Ehrenwald said, "I think the experimental design has to be flexible enough to accommodate different qualities of the psi function. We must not try to force it into the straightjacket of our preconceived experimental design." George Owen responded, "I agree heartily with that. We do not want to be like the man who went to South Africa to look for gold and when he came back he said it was a total failure, 'I found very little gold; only a few diamonds.' "

As researchers and academicians we continue our mining operations in parapsychology. I hope that soon we will find both gold and diamonds! Until then, Ladies and Gentlemen, the 37th Annual International Conference of the Parapsychology Foundation is adjourned.