SOME POSSIBLE CONTRIBUTIONS OF COMMUNICATION THEORY AND PRACTICE TO THE PSYCHIC PROCESS

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Everything human beings do may, in one way or another, fall under the general heading of "communications." Few areas of contemporary scholarship have suffered greater abuse than speculation on how and why people communicate. Dr. Jurgen Ruesch, a psychiatrist, calculates that at least forty disciplines may be employed in the study of communications, ranging from engineering and mathematics to architectural design and games. While he includes psychophysiology, neurophysiology and psychopharmacology, Ruesch does not mention any of the parapsychological areas. The speculation of this paper, therefore, is that the relationship of communication and psychic phenomena is a viable area for further study.

Since communications is an aspect of nearly every facet of modern epistemology, a communications expert could be defined in many ways. His orientation might be scientific or artistic, mathematical or literary, biological or political or simply theoretical or practical. It is this writer's perception that communications is eclectic; that it is not a discipline in the current universe of intellect. Therefore, when one speaks of communications, he is referring to an overriding phenomenon which is applicable to all facets of life.

The very word, communication, from the Latin, *communicatus* (to share, impart, partake) is perhaps the best key to what people have wanted the word to mean from the time it was first created. The intent appears to be to have something in common, to share, to transplant meaning from one to another, hence communion, community and communism. But definitions are inadequate without references to how communication works. If communication is all-pervasive, so must a working definition be highly inclusive. The definition which best fits the purpose comes from the late Irving Lorge, a psychologist:

Communication involves the interactions of sending and receiving signals, of composing and understanding messages and of sharing and enjoying ideas. These three interactions may be likened to interrelated stages involving the areas of engineering, psychology, and sociology. The engineering aspect deals with the means by which signs are sent and received accurately regardless of meaning. The psychological emphases are concerned with acquisition of language in its variety of meanings. The social level deals with the consequences of interchanges of communication.

While this operational definition may appear to be overly simplistic, it does specify three useful focal points for communication (engineering, psychology and sociology). The physiological aspect, which includes (1) physical touch, (2) visible movements of some part of the body, and (3) symbols, is a physical manifestation of the communication process. A brief review of each classification should provide a context for further analysis regarding the relationship of parapsychology and communication.

Physiological Aspects of Communication

The physical pressure of some part of the body, or an extension of it, acts as an event to stimulate responses in another person's nervous system, as in a handshake, a pat on the back or a slap on the cheek.

By moving some portion of our bodies in space, we change the angles of incidence and the angles of reflection of visible light waves. These changes, if seen by someone else, are events which can be interpreted—as with a finger pointing, a wink of the eye or a nod of the head.

The use of audible and visible symbols are attempts to let a surrogate "stand for" something which has been experienced internally. Spoken symbols are events, created by directing vocal muscles to vibrate, which pass through the air to the hearing mechanisms of a receiver. Visible symbols are created by manipulating muscles to form patterns. These patterns reflect visible light in unique ways, and thus can be distinguished from each other.

Mathematical/Engineering Aspects of Communication

Claude E. Shannon and Warren Weaver, electrical engineer and mathematician, are credited with one of the seminal models of the communication process from which other models have emerged in other fields.

The *information source* selects a desired *message* out of a set of possible messages. The selected message may consist of written or spoken words, or of pictures, music, etc.

The *transmitter* changes this *message* into the signal which is actually sent over the *communication channel* from the transmitter to the

receiver. The receiver reconstructs the message from the signal. The *destination* is the person (or thing) for whom the message is intended. Unwanted additions or distortions are called *noise*. Others have added *feedback* to the model to determine the congruency of the message sent and the message received.

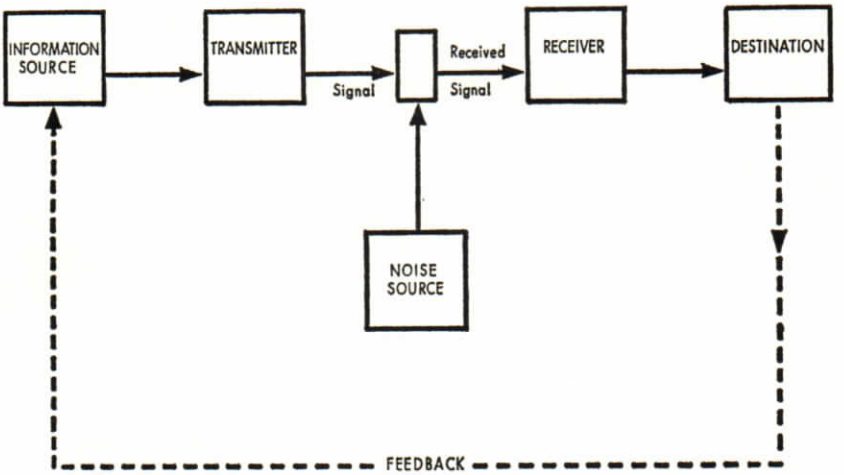

FIG. 1 A DIAGRAM OF THE SHANNON AND WEAVER MODEL WITH FEEDBACK ADDED

While Shannon and Weaver intended that their formulation be applied to mathematics and electrical engineering, it provided a model for other analyses of the communication process.

Psychological Aspects of Communication

The psychologist's contribution to the analysis of the communication process stems from learning psychologists of the stimulus-response school. Essentially, these psychologists are studying changes of behavior as a result of experiences. They are looking for old responses to new stimuli and new responses to old stimuli. The model developed by David Berlo, a communication theorist, serves as an example of several models which have evolved from psychology.

Whenever humans communicate, some *stimulus* is perceived through one of the five senses. If learning is to take place, the individual must *decode* and *interpret* the stimulus. Decoding involves the association of incoming stimuli to patterns of past stimulations and to other ideas and associations in the person's repertoire. *Interpretation* determines what is perceived and how it is perceived. After interpretation, the individual encodes some response. Encoding may represent only part of the individual's response to a stimulus. After the response is produced,

the person usually observes the *consequence* of his response. If the consequence is rewarding, the person will be more likely to make the response again; if not rewarding, the person will probably make a different response to similar stimuli.

By superimposing the concept of *feedback* on consequences, the psychological model takes on a communication complexion. Feedback is both direct and indirect. Direct feedback occurs when a source is able to observe both the responses of a receiver and the consequences of those responses. Indirect feedback does not provide the source with direct receiver contact.

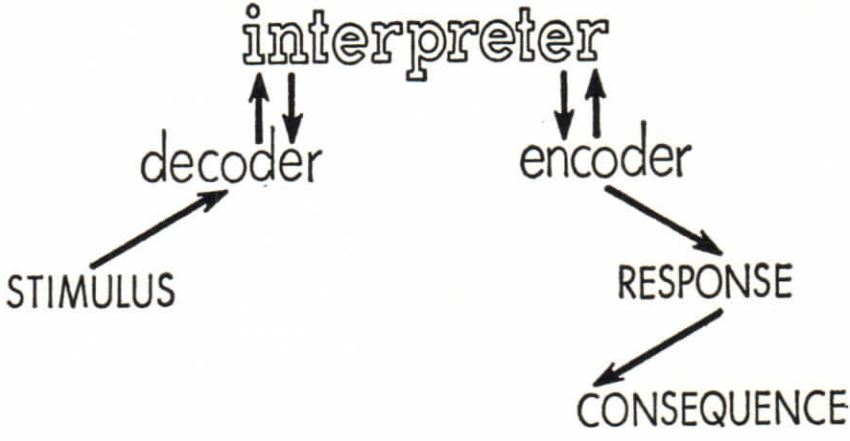

FIG. 2 A PSYCHOLOGICAL MODEL OF COMMUNICATION

Sociological Aspects of Communication

In an early attempt to describe the communication act, Harold Lasswell, a political scientist, used five basic questions:

Who
Says What
In Which Channel
To Whom
With What Effect?

Laswell describes the utility of his model in this manner:

The scientific study of the process of communication tends to concentrate upon one or another of these questions. Scholars who study the 'who', the communicator, look into the factors that initiate and guide the act of communication. We call this subdivision of the field of research *control analysis*. Specialists who focus upon the 'says what' engage in *content analysis*. Those who

look primarily at the radio, press, film and other channels of communication are doing *media analysis.* When the principal concern is with the persons reached by the media, we speak of *audience analysis.* If the question is the impact upon audiences, the problem is *effect analysis.*

The Lasswell construct can be used both as a predictive instrument and as a device for thinking in retrospect about an act of communication that has been completed. The model also provides the opportunity to consider various forms of communication—verbal and non-verbal. This is valuable since any schema which focuses attention on language alone is only partially adequate in our present society.

Lasswell's model does not lend itself to precise quantification. It does not suggest how and under what circumstances one element is more important than another and it does not offer an "if . . . then" approach to the analysis of communication. It is a good checklist.

These three approaches to the theory and practice of communication subsume most of the disciplines which claim to have an active concern for the study of communications. Are they adequate to explain psychic communication or must the parapsychological field constitute another category of communication? If indeed parapsychology involves *extrasensory* stimuli, would the concept of a "sixth sense" be sufficient to permit an analysis of the process using the engineering, psychology and sociology models?

It would seem that the very foundation of parapsychology must rest on a communications base. Without it, all those phenomena which find a generic home in the field would be illusions. If parapsychology can accept the definition of communication which emphasizes sharing, having something in common, transplanting meaning from one to another, then psychic communication can use the existing models for analysis of the process. If the field must generate its own definition, there will have to be new models developed for analyzing the process when psychic phenomena are investigated. Let us assume that the conventional definition will suffice.

From the *engineering standpoint*—in telepathy, for example, a message is selected from a set of possible messages by the information source; the telepathist is the transmitter who changes the message into a signal, which is often distorted by conflicting messages, and usually speaks in audible symbols through the air to the receiver (which, in this case, is the associated eighth nerve of the original information source) and is decoded by the destination (the mind of the information source). Confirmation or rejection of the message originally selected constitutes feedback.

From the *psychological point of view,* using precognition as an ex-

ample, the stimulus is perceived by a clairvoyant who decodes the symbols and interprets them in light of past associations and ideas. Once the interpretations are sufficiently clear, the encoded response is made, probably using audible symbols (the spoken word) or visual symbols (the written word). The consequence is the degree of congruency observed between the predicted event and the actual happening.

The *sociological* analysis would focus on one or more of the elements which constitute the process. In attempts to communicate with the dead, for example, the "who" would be the source of the message (the one who has died); the "says what" would be the content of the message; the "channel" in this case would be the medium (although the medium most likely uses the channel of audible symbols); "to whom" is the person being addressed and the "effect" will vary depending upon the content of the message—if the contact is made at all.

These are crude uses of very general models but may help to develop a more useful approach to the study of the communication process in relation to psychic matters.

Practice usually precedes theory. Theory is composed of tentatively-held hypotheses. The tentatively-held hypotheses serve as the basis for research which hopefully will yield valid conclusions upon which modified practices may be instituted.

It seems that parapsychology has collected a host of practices. These practices have stimulated tentatively-held hypotheses, many of which are being discussed at this meeting. Some of the hypotheses have been tested in research settings of varying quality. During this time of inventory, practitioners and scholars must come to some agreement on those hypotheses which can be accepted for the time being and those which must continue to be tested. Only through the painful process of well-designed research can progress be made for the benefit of the practitioners who, in the final analysis, move the field ahead or impede its further development.

OPEN DISCUSSION

GREENBANK: Was it only the lack of time that caused you to omit those communications as between lovers, which do not seem to be communicated by any of the methods that you mentioned? And yet I don't think that we would really call them the field of ESP. "So much to say. So little time to say it. Words which fail so sadly to express it; when lovers have been overlong apart. The touch, the hand, the heart."

ELY: I think that this could be subsumed under one of the three models. This type of communication with which I agree and concur and which I highly endorse, can be explained, I believe with the kinds of communication models that are indicated, so I don't think that it's eliminated except in the sense that it wasn't mentioned directly.

PAHNKE: In your example that you gave as Diagram No. 1, I was a little confused when you said the signal comes from the receiver and in through the eighth nerve. Now what has the eighth nerve—the auditory one—have to do with telepathy? Usually telepathy comes direct.

ELY: You would hear through the associated eighth nerve the interpretation of the medium speaking; otherwise the receiver would hear the words of the medium.

PAHNKE: I thought the receiver was the medium.

ELY: No.

PAHNKE: Where does the medium come in? On the diagram.

ELY: The medium is actually the transmitter. I find myself wanting to comment in terms of Levine and his life space. The relationship of life space is a somewhat amorphous overlapping as compared with the more graphic, separate kind of analysis that these models tend to portray, and I don't know whether that says anything to you or not.

MUNDLE: This discussion is proceeding, of course, as if telepathy is what has to be explained and of course it is so much easier to explain

telepathy and think of it as communication. You've got the two brains, two people, but there does seem to be as good evidence for clairvoyance. Now can you treat this as communication in terms of your model? The source of the information is what—a pack of cards or drawings? Wouldn't we have to suppose that there is some form of radiation, some form of physical energy passing from each physical object in the world which is overlooked by the physicists?

ELY: I think it's overlooked. I think it's well known that our source of energy is ninety-three million miles away, and that we have unseen a whole spectrum of X-rays and radio waves and all kinds of waves which, in fact, do permit energy to be used to get information from one place to another, and I would say that perhaps it would be easy to hypothesize that the same kind of energy might be used in a clairvoyant activity.

MUNDLE: Well, there have been tests done in Faraday cages, lead screens, etc., that block all forms of electromagnetic radiation, and successful results have been reported, even with ranges of mountains between sender and receiver. It's these sorts of fact which make it difficult to apply this physical transmission system and model to extrasensory perception.

ELY: What I think it does is to help raise the kinds of questions you're asking rather than answer them. In other words, if we can take clairvoyance as an example using a model, we would ask ourselves where are the unknowns and where are the voids and what might we do to help interpret those unknowns, rather than to say this is the way to explain clairvoyance and here is the model. Here's the model but here are the voids in the model that need to be studied and perhaps this is the way we can get the research questions raised in the first place.

HANSEL: One of the difficulties in card guessing is, it seems to me, that the subject is forced to guess and the question of signal detection against noise comes up and as far as I can see no signal technique has yet been employed in parapsychology. I wonder if there is anything about the model that would be of use to parapsychologists in their attempt to increase signals in their experiments?

ELY: I think I would recommend the use of telepathy rather than the pure type of ESP coming from the Zener cards, for example. And this is an easy answer. It doesn't really get at your point, but I feel the research could be so much more useful if we had the intervening person

in telepathy rather than the random use of cards. This is just a personal point of view.

MRS. GREENBANK: You raised the point, and I think it's a very valid one and I think Mr. Cohen mentioned it yesterday, that there's no charter, no "this is it." I think maybe one of the reasons is you've got two conferences going under one name. I in my own mind separate them as psychics; not the people who are sensitive or anything, but the people who are interested in psychic phenomena and the parapsychologists. I think they're two different branches looking at two different things and I see very little communication between the two different kinds.

ELY: You mean like science and religion?

MRS. GREENBANK: Yes, exactly.

HERBERT: I want to refer to your comments on the experiments in Faraday cages and the screened conditions. It seems you support my 5-D hypothesis—that the results are better the more screening there is from electroradiation, and this is mentioned in my talk about the 5-D hypothesis.

MUNDLE: I don't think the results have ever been better in Faraday cages. There hasn't been any difference.

HERBERT: I think Mrs. Eileen Garrett got better results in a Faraday cage. I think this lends a little support to my 5-D hypothesis.

MRS. GARRETT: Well, I think if you're in a Faraday cage and they tell you that you can communicate, suddenly you find that you are going to communicate.

MUNDLE: It's more of a challenge when you're in a Faraday cage.

HERBERT: May I ask Mrs. Garrett a question? When you're in a Faraday cage do you experience euphoria? A feeling of well-being?

MRS. GARRETT: I would say yes. Very content, excited about what's going to happen now, and liking it very much.

ELY: Did you mean to imply, Mrs. Garrett, that the reason that you did better in a Faraday cage was because of the suggestion that you would? Or do you think that the Faraday cage itself . . .

MRS. GARRETT: No, it's the Faraday cage itself. I am enclosed, so to speak, from outside events, and that's not true because I am on my mettle to produce anything and everything. I become more observant.

HERBERT: It does occur to me that there are various ways of inducing the Faraday cage effect; in a sense, one gets to the point of isolating things. But could we consider other sensory-deprivation conditions? Have parapsychologists tried experiments under similar conditions?

HANSEL: I've tried experiments in deep caves and have found that ESP seems to operate. If some people are in deep caves and other people are in a neighboring cave or maybe on the ground in some vehicle that is metal-lined, they do seem to have some sign that something is happening.

MUNDLE: I wonder if Mr. Roll or Dr. West would tell us if experiments have ever been done under sensory deprivation conditions suggested by Hansel? I can't remember any.

WEST: In the mediumistic sitting, it is sometimes a situation of modified sensory deprivation; often the noises are kept out and the lights are subdued and mental imagery is increased. But have we done any actual experiments? Now, I can't recall offhand if we've really centered on that.

MUNDLE: Well, if it hasn't been done before it seems worthwhile trying it, doesn't it?

OTHER:* May I make a remark about this kind of model here? I have been following it or sort of accepting it, but I'm now wondering about it for several reasons. First of all, one thing that makes me wonder is the lack of effect of feedback. I know of no subject, medium or psychic, who is able to distinguish correct impressions from incorrect impressions and I know of none who has been able to learn ESP even by immediate feedback about success and failure. Perhaps one of these models can be fitted into the actual situation, whatever that may be. As suggested by the term extrasensory perception, we think of some kind of signal being sent out voluntarily and the subject directing himself at some kind of target. But I'm wondering if, in these ESP situations, what we're confronted with is not a perceptual or any other kind of ability of that nature, but rather an ability to enter a state, and this state being an associational state reaching a complex of associations. Here they are just as likely to hit or miss, to displace in one way or another waves or ways that we are familiar with, and it seems to me perhaps that is what the field is moving towards. I think there is a slight indication of this in the work we're doing with brain waves and in some of the studies of expansion of consciousness. Perhaps we are concerned here with entering other states, a state of associations rather than a sending and receiving of messages.

* Unidentified voice.

MUNDLE: There have been a good many feedback experiments that have been tried to teach people, so that they know when they're getting hits and misses, but this has not worked. Their scoring rate doesn't seem to improve, so it doesn't seem to be a matter of learning as it should be if you're thinking in terms of the orthodox communications model.

PAHNKE: In the apparatus I described yesterday, we have a feedback feature where a person can have an "on" or "off" by throwing a switch "on" or "off." Sometimes we've done a series where we have fifty without feedback and where we've done fifty with, and either there's no difference or else it impedes the person's performance. When he starts getting feedback, he gets excited and loses ESP.

MUNDLE: This is also found by Dr. Schmidt in some unpublished papers which I've seen. The subjects were given the choice of having feedback or non-feedback, and most of them after a bit of experience preferred to have no feedback and got better results without feedback because they regard it as a distraction.

PAHNKE: Regarding sensory isolation, in our research center we have three such rooms that are sensory-isolated, also there are Faraday cages, so we can very well do the kinds of experiments that you suggested. I don't know anyone who has done that.

COHEN: I think Professor Hansel did make a suggestion that is one of the most fruitful as far as future research is concerned. There's enormous literature on the subject of sensory isolation. A lot of work has been done on this type of experiment. You wouldn't have to work out many of the techniques from the start. I don't think it's ever been done from the standpoint of ESP, but it seems to me from what Mrs. Garrett said, that in the usual mediumistic environment there is always a certain amount of sensory isolation that seems absolutely necessary—subdued lights, quiet—and it seems to me that this is an area for intensive research.

GREENBANK: It seems to me that we are doing our mediums and our subjects a disservice by taking either too philosophical or too physical an approach to them. The fact that a person in a Faraday cage feels a challenge to do better, has to be one variable and the removal of electromagnetic radiation another variable. Now I would suspect that there would be about ten thousand other variables that take place at the same time, and I think that in trying to look at just one, we lose the opportunity to see how really complex the situation is; particularly your changed feelings about the person you're working with as time goes on must indeed change the results. We could go on like this for

some time, but I would suggest that instead of looking for one or two variables, we should try and see how many different kinds of variables can be controlled in any given experiments.

MUNDLE: Yes, well the experimental method requires that you change only one variable at a time to find out whether that variable is there.

ROLL: I just thought I'd add something about isolation and relaxation. Here, we have distinguished between the transmitting situation and the receiving situation. There's no indication whatever that I know of that it is of any advantage for the transmitter—to be in a relaxed sensory deprivation kind of state. On the contrary, both from spontaneous cases and from recent experimental material, particularly in the experiments of Thelma Moss in California, there seems very little indication that the more adrenalin, as it were, that's fired into the transmitting situation, the better your results are likely to be. But now with regard to the receiver end of the process, there again I think we have to make a distinction according to the type of material and the type of target we're working with. There's no indication whatsoever that, for instance, the reception of ESP symbols is likely to take place any better in a situation of relaxation than otherwise. There's no indication that has come out in the experiments, as far as I know, that says it is better to be even in a hypnotic state or in a relaxed state or in a sensory-deprivation state.

We must remember here the experiments that are now being carried out at Maimonides Hospital in Brooklyn, where indeed we do have situations of sensory deprivation because the dreaming receiver is in a kind of isolation room and all types of input are reduced in the belief that this kind of situation improves the transmission process.

Now this conflicting situation makes quite good sense if we conceive of the ESP reciprocal process as a memory process, because it takes no effort to remember the five ESP symbols or two symbols or whatever you work with. On the other hand, in the case of free ranging, as in mediumistic testing, you have to be relaxed for your memories to come in.

PAHNKE: Before we leave this topic, I'd like to say that "sensory deprivation" is a misnomer. We really should call it "sensory isolation," not "sensory deprivation," for the reason that if you put somebody in such an environment, a lot of sensory things happen to him. As Professor Hansel has suggested, you get all kinds of altered states—hallucinations and feelings and emotions, etc.—so it's not "sensory deprivation."