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Communication as Bits and Metaphor

The two most important questions in therapy are whether a person has changed after therapy more than he or she would have without it and whether one therapy approach is more effective than another. When investigating such questions, clinicians often do not agree on how to describe the problem in the therapy situation. At one extreme are the behavior modifiers who wish to use a rigorous description and quantitative measurements. They would like to classify the therapy problem as the presence or absence of acts that can be listed as discrete items. Many other clinicians at the opposite extreme object to this approach and argue that no act is independent of another act, because both acts are connected through different meanings. Clinicians at each extreme argue that the other misses the point of the therapy experience. They cannot agree on procedures and results because they have not agreed on the language for describing a therapy problem.

When therapists listen to a complaint in a first interview, or when they investigate their results after therapy, they must classify in some kind of language what is happening. The ways they describe what they hear and observe will be determined by their point of view and by their training. Some therapists classify what people say as symbolic communication. Others

listen for the frequency of some type of behavior. Others will be hearing what happens as a sequence of interpersonal action in an organization. To formulate problems and to answer the question whether therapy has been successful, one must clarify the different languages in which the problem situation is being defined.

Suppose that a woman enters therapy reporting that she washes her hands many times a day and would like to recover from this affliction. The behavior modifier might describe such a person by focusing on her behavior and counting the ritual washing acts performed per hour. Therapy would be defined as a set of operations to reduce or eliminate the inappropriate acts. The premise of this approach is that this person's behavior can be described in terms of ''bits'' of behavior. A traditional dynamic clinician might describe the same person by saying she is expiating guilt with this compulsive washing. The therapeutic task would be to offer a human encounter that would resolve the person's guilt and change her perception of the world. The ritual washing would not be described as a ''bit'' that could be counted. It would be a metaphor, an analogy, about her life.

Digital and Analogic Ways of Communicating

The fact that there are two such extreme ways of describing human beings may be based on the fact that the human being is capable of communicating in two different styles, or languages. Sometimes people communicate in precise and logical ways, and sometimes they express themselves in the language of metaphor. When someone is being logical, his or her behavior can be described in a logical, scientific language just as a scientist might describe plants or mollusks. Yet when a person is not communicating in terms of logical categories, no descriptive system made up of logical categories can encompass what he or she is doing. The ''map'' is not appropriate for the ''territory.'' Describing the person in logical categories would be as useful as counting the words in a poem. Conversely, when someone is communicating in terms of discrete categories, to describe the person in terms of metaphors is not appropriate.

One way to characterize the two different modes of human communication is as *digital* and *analogic* communication.* Digital communication consists of that class of messages in which each statement has a specific referent and only that referent. Something happens or it does not happen; there is *one* stimulus and *one* response. It is possible to make a computer classification of such communication because each message fits into a specific category. In this mode, behavior appears to be as logical as the object-linguists would like it to be: one cay say "If *A,* and only if *A,* then *Z,* and only *Z.*" Each message is about *one* thing and not about something else as well.

It is because human beings can communicate in digital language that they are able to build computers, reshape nature, and function in complex organizations. The use of digital language to describe human behavior appears most appropriate when the subject is the study of a human being dealing with the environment—when a person is building bridges. This language begins to be problematic when it is applied to human beings dealing with one another. To used digital language to describe people talking with one another, we must expect them to communicate in logical, rational ways, speaking words that have specified, previously defined referents. From the digital view, the description of a man pounding a nail and the description of a man fighting with his wife should be synonymous descriptive problems. In both cases it would be a matter of phrasing the description in a precise language of single referents. Yet describing an interchange between husband and wife in digital language may leave out the essence of the interchange. The fight a married couple may have over who is to pick up whose socks does not necessarily have socks as a referent but, rather, what the socks have tended to mean in the context of the relationship. If one tried to program the interchange into a computer, each message in the quarrel could not be placed in a single category but would need to be coded for all its multiple referents.

*G. Bateson and D. D. Jackson, "Some Varieties of Pathogenic Organization," in D. D. Jackson (ed.), *Communication, Family and Marriage* (Palo Alto, Calif.: Science & Behavior Books, 1968), pp. 200-215.

When a message has multiple referents, it is no longer a "bit." It is analogic, in that it deals with the resemblances of one thing to another. In an analogic language each message refers to a context of other messages. There is no single message and single response—there are multiple stimuli and multiple responses, some of them fictional. Analogic communication includes the "as if" categories; each message frames, or is about, other messages. Included in this style of communication are "play" and "ritual," as well as all forms of art. The analogue can be expressed in a verbal statement, as in a simile or verbal metaphor. It can also be expressed in action—the showing of how something is by acting it out. A message in this style cannot be categorized without taking into account the context of other messages in which the message occurs.

If there were a continuum from digital behavior to analogic, the problem could be more easily resolved. But there appears to be a discontinuous change from one style of communication to the other. This change forces a dichotomy. To illustrate the problem of discontinuity, we can take as an example a television picture or a halftone newspaper photograph. Both are comprised of a series of dots, or "bits" of information. Yet the newspaper picture is more than the sum total of the dots that make up the picture. If we build such a picture by adding dots, they continue to be dots until a certain point at which the picture becomes recognizable as a representation of something, such as a scene or a person's face. At the point where the shift takes place from bits to scene, the change from digital to analogic communication is discontinuous. Information theory and the theory of quantification of bits of behavior can easily deal with the dots, but these approaches cannot easily relate the scene of the picture to the original scene or describe what is being communicated to the reader by the photograph. If the picture has a caption, the problem is the same. It is merely a group of letters, or digital bits, but at the point where the bits form a recognizable word, the communication has shifted from digital to metaphoric. The problem is not one of extremes of a continuum but, rather, a dichotomy between two types of communication. Problems of description arise with these two styles of communication when-

ever one is talking about human action, particularly in the field of therapy and its evaluation.

Therapy and the Use of Analogies

The use of analogies, or metaphors, seems especially central to the procedures of therapy. Quite different schools of therapy have in common a major concern with the use of analogic communication. It is not simply that the behavior modifiers concern themselves with "bits" and the dynamic clinicians with analogies. Behaviorists do tend to be digital when describing problems and when evaluating outcomes, but their actual therapy can be described as both digital and analogic.

Psychoanalysis was a procedure that encouraged patients to talk in analogic style. The request for "free association" was a directive to the patient to temporarily abandon the digital style of communication and say whatever came to mind, no matter how irrational it seemed. Speaking in this way, patients offered a series of analogies about their lives. The analyst also requested dreams, and when the patient was reporting a dream, the style was again analogic. The analyst's task was to apply analogies of his or her own by interpretations and to explore the connections between the various metaphors that the patient was communicating. The dream metaphor was exposed to free association, which led to a description of an event that was, in turn, discovered to be a metaphor about other aspects of the patient's life.

Rather than have the patient offer the analogies, some behavior therapists offer analogies when attempting to change the same type of patients. The patient is asked for a list of "anxiety" situations, and he ranks them in order from those that make him least anxious to those that make him most anxious. Then he is asked to relax while the therapist offers a series of analogies about those situations. For example, if the person is afraid of blood, the therapist first describes a scene where there is a little blood and increasingly emphasizes wounds and bleeding as the scenes progress. The patient responds only by a digital indication of whether he is "anxious" or not as he listens to the metaphor. He does not offer analogies himself, except in

describing his problems and in casual discourse with the therapist, but he has veto power over the analogies offered to him by the therapist. When the patient indicates he is "anxious," either by a word or by a movement, the therapist stops offering analogies or shifts to a milder kind.*

In an opposite approach, rather than avoid making the patient anxious by carefully paced metaphors, as in behavior therapy, Thomas Stampfl developed implosive therapy, a procedure of helping people become less fearful by asking them to be fearful.† He forces the patient to be "anxious" by building extreme metaphors. For example, if the patient says she is afraid of bugs, the therapist will tell her that she is surrounded by bugs, the bugs are getting bigger and approaching her, they are overwhelming her, and so on. In this kind of therapy the patient has no veto power, since becoming anxious only increases the extreme nature of the metaphor offered. She can "recover" only by not being anxious, often by laughing as her fears are reduced to absurdity in the analogies offered by the therapist. Paradoxical intention therapy follows a similar procedure.‡

Verbal conditioning therapy operates in a way opposite from Wolpe's behavior therapy and from Stampfl's procedures even though all the approaches are derived from conditioning theories. Instead of the therapist offering analogies while the patient responds with digital signs, the patient describes his or her life in analogic style and the therapist offers digital responses. From the therapist's view, these responses—nods of the head or encouraging words—"reinforce" certain parts of the patient's communication. For example, if the patient says something like "My life is a drag," the therapist does not respond, but when the patient says, "My life sometimes looks bright," the therapist smiles or nods to encourage further metaphors of this kind.

A neglected aspect of research on therapy is the fact that

*J. Wolpe, *Psychotherapy by Reciprocal Inhibition* (Stanford, Calif.: Stanford University Press, 1958).

†P. London, *The Modes and Morals of Psychotherapy* (Orlando, Fla.: Grune & Stratton, 1964).

‡V. E. Frankl, "Paradoxical Intention and Dereflection," *Psychotherapy* 12 (1975): 226–237.

it is not uncommon for therapists to offer analogies about life, often in the form of examples from their own experience or reports about patients' experiences. This use of analogy is not usually considered a focus of the therapy but is done in passing, during informal interchanges with the patient. A surprising number of therapists tell their patients jokes. Some employ a systematic use of anecdotes with patients. Milton Erickson has developed this procedure more fully than most people. He tells the patient a story that is formally parallel to the patient's problem, and he views therapeutic change as related to the shift in the patient's analogies provoked by the analogies the patient is receiving.*

Analogies in Family Interviewing

The procedure of interviewing whole families has made evident a level of analogy that is also implicit in all forms of treatment. Family therapy consists of many approaches by different schools, but usually the whole family is seen together and typically a therapist asks the family members to offer verbal analogies about their problems. Simultaneously, as the family members deal with one another in the interview, they are enacting an analogic portrait of their life together.

The verbal descriptions by the family are examples of what is happening that is analogic to other things happening, and the therapist responds with metaphors about the family or about other families. However, in addition to the verbal exchange, many family therapists actively request changes in behavior of the family members either in the room or outside it. It becomes more evident when one observes this style of therapy that in all therapy the relationship of patient and therapist is analogic to whatever is being communicated in the therapeutic sessions. For example, the therapist may note that a father talks to his

*J. Haley (ed.), *Advanced Techniques of Hypnosis and Therapy: Selected Papers of Milton H. Erickson* (Orlando, Fla.: Grune & Stratton, 1967), pp. 229–312, and *Uncommon Therapy: The Psychiatric Techniques of Milton H. Erickson, M.D.* (New York: Norton, 1973); S. Rosen (ed.), *My Voice Will Go with You: The Teaching Tales of Milton H. Erickson, M.D.* (New York: Norton, 1984).

son only through the mother. The therapist's intervention may be to ask the mother to sit over to one side while father and son move their chairs so that they face each other and have a talk. Sometimes this request is phrased as being necessary "to see how father and son talk to each other." This interchange between father and son is then a metaphor about their relationship with each other, but when the therapist makes this arrangement, he or she is also acting out an analogy about many aspects of the family, including how the mother should remain out of the interchange. Whether the interview is with one person or several, each act by a therapist is also an analogy about how to behave. This relationship analogy or metaphor is *meta,* or "about," the content of the discussion. If therapy were merely a matter of offering digital bits of information to patients to give them understanding, the relationship would not be particularly relevant. However, the change in the behavior of the patient occurs as an aspect of the analogic changes in the relationship with the therapist.

When we recognize the multiple levels of analogic communication that occur in therapy, we can face the complexities in the process of inducing therapeutic change. Each statement by a patient is multiply coded. It refers at least to her previous statements, to her context of interpersonal relationships, and to her current relationship with the therapist. That is, the patient's statement "fits" a complex set of situations by resonating analogically to these multiple facets of her context. The patient appears peculiar—that is, neurotic or psychotic—when her statements are of a deviant kind because they must "fit" a deviant context. For example, if a psychotic patient says to a therapist, "My stomach is full of cement," with no cue that indicates she is speaking in metaphor, the statement is an analogic expression of a complex context. She may be metaphorically speaking about the hospital food and expressing an analogic statement about her relationships in the hospital. By providing no cues to how her statement is to be received, she is indicating her distrust of the therapist. Simultaneously, the statement may also be a metaphoric response to a previous comment by the therapist. When the patient is "cured," she might communicate

in a more normal way by saying something like "The food in this place is terrible, and the way I'm treated makes me sick to my stomach anyhow." Then she would be properly labeling her metaphor. She still would be speaking analogically but would be using a more "normal" analogy. Change in the patient would be shown by a shift in the style in which she indicates the kind of situation she is in with the person to whom she is talking.

When we examine the question of how a therapist induces a patient to change her communicative style, it would seem evident that insofar as the patient's communication is adaptive to her context, then that context must be changed for her communication to change. The life situation of the patient, and her relationship with the therapist, must shift if the way she communicates to the therapist is going to shift. The patient's style cannot be changed by "working on her communication," but only by making organizational changes in the situation to which she is adapting.

A Problem as a Metaphor

Let us take an example to illustrate the use of analogy in therapy. A man enters therapy because, he says, he is afraid he is going to die of a heart attack. He has been assured by a number of doctors that his heart is functioning well, but he still fears that his heart will stop at any moment and he will die. The therapist is faced with the task of changing this patient's style of communication.

If the physician takes the patient's analogy as a digital statement about his heart, she is likely to reply with a digital answer: "Your heart is all right." The patient then proceeds to the next doctor even if the physician supports her reassurance with impressive scientific instruments for examining the heart.

Some therapists will receive the patient's communication about his heart as an analogy—a statement that means something about something else. They will ask a series of questions to gather information about aspects of the patient's life that are analogic to his statement about his heart. These questions typically are "Can you tell me more about that?" (to increase the

flow of analogies), "How do you feel about that?" (to encourage more specifically analogic material), and "Do you have similar fears about other things?" (to bring out related analogies).

The kind of analogies that interest the therapist will depend on his particular theory about the "cause" of the patient's presentations. The psychodynamic therapist as well as the behavior therapist is interested in metaphors about the past because of an assumption that past traumas lead to present difficulties. For example, should the patient say, "My fear came on about the time my brother died of a heart attack seven years ago," both kinds of therapists will show active interest even though their therapeutic procedures will be different. The psychodynamic therapist will begin to make "interpretations" to help the patient connect the analogies about his own fear of death and his feelings about his brother. The behavior therapist will have found an area of anxiety, the trauma of death, to be deconditioned. He might deal with the present rather than the past in his therapy, but his causal explanation will be oriented toward the past.

A family-oriented directive therapist will have quite a different view: he will assume that the patient's statement about his heart is analogic to his current situation. He will inquire about how the client relates to his wife, about his job, about his children, and so on. The therapist will also want the wife present in a session so that he can examine how they deal with each other and how the complaints about the heart are used in the ongoing interchange between husband and wife. When he interviews husband and wife together, the therapist will take an interest in the wife's response when the husband is feeling better and when he is feeling worse. For example, he might note that she communicates depression when the husband is emphasizing the better aspects of his life and health and that she appears more involved and animated when he discusses his heart problem. The family-oriented therapist will construct a theory that the husband's communication about his heart is a way of stabilizing the marriage. The kinds of data he will seek are those that reveal how the heart analogy is built into the person's ecology, or interpersonal network.

For example, the family and work life of a person with this kind of presenting symptom is organized around this analogy. The children must be quiet or it will upset father, who fears for his heart; trips and recreation are determined by the state of father and his heart; the kind of job he has and his task performance on the job are regulated by his heart. Often the problem is both the focus of fighting and the way of avoiding conflict in the marriage. For example, sexual relations must occur only under circumstances determined by the man who is concerned about overtaxing his heart. Conflicts about sex between the couple can be avoided when the heart is such a convenient issue. One also finds, in such cases, that husband and wife fight in the morning because he says he cannot go to work because he might die if he exerts himself, while his wife insists he must go or he will lose his job. Often one finds that the days the husband stays home because of his heart are those days he is most worried about his wife's state of mind and is afraid to leave her alone.

What Causes Change?

When we turn to how to bring about changes in a person who communicates this kind of analogy, we must make a distinction between how different therapists understand such a problem and what they do about it. All therapists, whatever their schools, are attempting to change a metaphor in such a case—they wish to change the patient's communication that he expects to die of heart failure at any moment. Many therapists would not see it as a problem of changing the patient's communication. They would postulate something inside him that has to be changed, such as a conflict, a fear, an idea, or an incubus. However, the definition of successful change would be that the person no longer communicates a statement about dying of heart failure.

By the nature of their approach, most therapists would not reassure the man that his heart is all right, as many physicians, wife, and friends have done. However, implicit in all their communication to him is the message "There is nothing wrong

with your heart, and your statement is an analogy about something else.'' By not responding to him as having a ''real'' heart problem, their metacommunicative behavior indicates to the patient that his heart is all right. It is important to emphasize that this framework exists, in order to make it clear that even if a therapist should take literally the metaphor about dying of a heart attack, he does so within a framework that indicates there is nothing wrong with the person's heart.

There are two approaches that appear to succeed with this problem more often than they fail. The first approach defines the problem as a one-person situation, and the subsequent therapy attempts a shift in perception. (Actually, there is no such unit as one person. There is at least the client and the therapist, or an observer, making the description of a person who is part of the system. There are also always other people who will respond to what happens in a particular situation where supposedly only one person is involved.) The second approach assumes it is a multiperson problem, and the therapy is family-oriented.

The first approach is a paradoxical intervention that includes taking literally the person's metaphor about dying of a heart attack. Typical exponents of this way of working are Victor Frankl and Stampfl. The procedure is to advise the person that not only is he going to die of a heart attack but he should drop dead right now. If this procedure is used improperly, it merely dissuades the person from returning for another session of such treatment. If it is used properly, it brings about a transformation that includes abandoning the communication that he is going to die of heart failure. The proper approach includes, first, establishing a trusting relationship with the person. This step involves defining the relationship as one in which the therapist is being helpful and is on the client's side. It must also include the communication that there is nothing wrong with the person's heart. In the second step, the person is encouraged to fall dead of a heart attack at that moment. This approach takes the person's metaphor about his heart absolutely literally: since he has a heart that will fail, it should fail now. The person's communication is not received as an analogy about something else but as a digital statement about his heart.

Both aspects of this procedure must be included: the framework of helping the person over the problem with an indication that his heart is all right and the statement that his heart is failing and he should drop dead right now. When the therapist is successful, the patient abandons his analogy about his heart, often laughing at some point in the procedure. The procedure is repeated at every instance of the expression of a fear about the heart.

Although this approach can be successful, it does not take into account the consequences within the person's family of the change when the heart analogy is abandoned. Predictably the wife and other members of the family will be pleased, but they might also become at least temporarily upset. Marital uproar may occur and may lead to a separation. One cannot change this kind of communication without changing, often unpredictably, the organization in which the person lives.

A Family Approach

Milton Erickson has developed a procedure that is similar in that it also takes literally the metaphor about the heart but that also takes the family into account. Rather than himself take the metaphor about the heart literally, Erickson arranges that the wife do so. In such a situation the wife usually believes the doctors who say that her husband's heart is normal, but she also responds to her husband's behavior by fearful concern that he might indeed have something wrong with his heart. Essentially, she oscillates between condemning her husband at one moment for his illusion and sympathizing with him at the next moment for his heart condition. This kind of oscillation is typical of the intimates of people who show various kinds of severe psychiatric symptoms.

Erickson establishes a trusting relationship with both husband and wife, which is essential in this approach. This approach includes assisting the wife with her problems that are avoided by the communication about the heart. When this relationship is set, and the wife is ready to have her husband give up this metaphor, Erickson arranges that the wife encourage the husband to die of his heart attack. He may have her do so in various

verbal and nonverbal ways, including having her respond to each complaint as if it were a real heart attack, calling for an ambulance or other proper medical assistance. An even more effective procedure he has used is to have the wife visit various funeral parlors and collect their literature on funerals. Each time the husband expresses his fear of dying of a heart attack, the wife quietly distributes the funeral literature throughout the house. This procedure rapidly resolves the problem.

To say that the problem is "resolved" with such an approach is to say that the metaphor has been blocked and the couple are forced to develop other ways of communicating with each other. In all areas of encounter between husband and wife where the heart metaphor was previously used, other styles of behavior must now develop. The system has been forced into instability. One might think the husband would substitute another incapacitating metaphor, such as a fear of cancer. However, this substitution does not occur in actual practice. The alliance of wife and therapist forcing the change in the heart metaphor also seems to force a change in that *class* of metaphors. Typically, the husband becomes angry and speaks more straightforwardly about various situations with his wife where the metaphor was previously used, such as sex life or recreation. The wife, in turn, expresses herself with another metaphor than depressive behavior, and in the process the two of them work out changes in their behavior with each other and more "normal" marital communication.

This example is similar to other kinds of metaphors which are expressed with bodily sensations and in which the bodily sensations change when a different kind of communication becomes necessary. For example, the wife with a "real" pain in the neck that has no organic cause can be described as a woman expressing analogically her opinion of her intimates. Similarly, the pain in the head, the pain in the stomach, the nausea, and so on can be understood as metaphors about family life and so treated. Some people seem to be able to say, "You give me a headache," and not have the headache. Others must actually develop a headache, using themselves as an analogic tool to express a statement about their system. Often patients

who use the headache metaphor can be taught in therapy to say verbally they have a headache when they have not, so that the verbal statement continues to serve the purpose of the metaphor without the pain. Usually this approach leads to the patient's abandoning both the somatic and the verbal metaphors.

Whatever therapeutic approach clinicians use, they are distinguished from other students of human behavior by their particular interest in analogic communication. When social scientists insist clinicians are "soft" in their approach and should deal with facts, the clinician says they misunderstand and are overlooking the importance of metaphoric communication.

Assessment of Therapy

When we turn to the question of change in therapy and how change can be described and evaluated, one problem seems immediately apparent. Most people evaluating therapy have tried to evaluate change by focusing on digital communication. Evaluating a change in a metaphor is a problem with an undeveloped methodology.

Most evaluations of therapy in recent years have attempted to be scientific by comparing factual information gathered before and after therapy with similar information gathered from some contrast group such as prospective patients on a waiting list. The methodology used relies largely on the self-reports of the people involved. Two factors are usually emphasized: Is the problem the patient originally presented still there, or has it been relieved? Has the patient sought assistance from other people after the termination of therapy? The investigator gathers this information by self-report from the patient, the therapist, and perhaps family members and looks for responses that can be coded as "bits" for quantifiable measurement. The responses must be in a "yes or no" form or in the form of a scale involving "no change, some change, great change," and so on. For example, if the patient presents the problem of a fear of dying of a heart attack, some classification of severity is made at the beginning of therapy. At the end he is asked whether he still has the fear, and if so, he is asked to classify its severity. Whether

a phobia, a depression, or whatever, the attempt is to make the problem a "thing" that is either present, not present, or partially present.

Serious questions can be raised about self-report. Clients who have invested a great deal of money in therapy—or who like or dislike their therapists—will report "facts" biased by that context. Similarly, therapists are hardly objective observers of a task in which they have a large personal investment. The supposedly disinterested investigator also has his or her interests and works within a context that influences what happens. For example, a patient may exaggerate the problem to an investigator at the beginning of therapy even though the investigator will not be treating him, because the patient may believe that whether or not he is treated depends on the investigator's opinion. Another problem, besides bias and unreliability, is that self-report is metaphoric as well as digital. Insofar as what patients and therapists say is "biased" by the experience and context of the treatment, they are communicating analogically about that context even if they ostensibly respond in digital form. Communication is a metaphor from the person to the investigator, which not only has as its referent the problem, and whether the problem exists or not, but also carries an analogic statement about the relationship with the therapist, with family members, and with the investigator. The problem thus becomes one of evaluating a metaphor that is cast in digital terms.

It is also possible to approach the problem of evaluation as one that necessarily involves changes in the patient's analogic style of communication. When symptoms are seen as metaphors, the question is whether the metaphor has changed. One might use projective tests before and after therapy to determine changes in metaphors, but the reliability of these tests is most doubtful. A clinician would not stake his or her reputation on the outcome of a projective test, partly because the test must be interpreted subjectively and partly because the influence of the tester enters into performance. A more self-evident reason is that the projective test produces metaphors that are a communication to the tester—and the patient does not live with the tester but with his or her intimates. For example, a woman is likely to

give a different response to an ink blot if she is talking to a tester than if her mother is administering the test. The relationship is different, and so the style of communication is different. What is relevant to change is whether the patient has changed her style with those people with whom she lives (unless the particular symptom involves a problem of relating to strangers).

The importance of doing even digital evaluation of change in therapy is granted. But when there is such a focus by clinicians on analogic communication, it seems evident that evaluation must deal with analogy. Such an evaluation necessarily should include observation and measurement of the way the "patient" communicates with other people, including spouse, children, employer, and therapist. Since analogic communication has multiple functions in an interpersonal network, the network must be examined for change. Self-report about this kind of communication is not adequate. There must be actual observation of how the patient behaves with his or her intimates. For example, after therapy does the man still take his pulse when his wife looks at him amorously? Does he fight with his wife about other matters than his heart? The difficulties of research in this area are being explored with studies of films and with family testing, but the development of rigorous measurement has hardly begun. Without this exploration of change in analogic communication, most clinicians would feel that evaluation of therapy is incomplete and misses the point. (However, the difficulty in evaluation does not mean that therapists should be excused when they avoid evaluating the outcome of their therapy. The difficulties are a matter of degree. Certainly a therapist can keep track of his or her successes in helping clients get over their presenting problems while still accepting the more complex aspects of change.)

From the viewpoint offered here, therapy is an intervention by an outsider into a tightly structured communication system in which symptoms are a style of behavior adaptive to the ongoing behavior of other people in the system. Whether the problem is defined as a phobia, a depression, a character disorder, acting out, or whatever, the communication is functional within the system. The act of intervening, whether it is

called "individual therapy" or whether the therapist brings together the intimates of a patient in an interview and so calls it "family therapy," is an intervention into a family system. The therapeutic process may consist of easing the persons out of the metaphors they are using into more appropriate ones, or the metaphors can be blocked so that others must be developed. When therapy is done effectively, the total system in which a person lives undergoes change so that more normal communication is possible from everyone involved. Determining whether the change has happened is a more complex problem than the preliminary therapy evaluation studies would indicate.

To summarize, it is possible to describe symptoms as communicative acts that have a function within an interpersonal network. The symptom is not a "bit" of information but is an analogy that has as its referents multiple aspects of the person's situation, including the relationship with the therapist. From this view, the goal of therapy is to change the communicative behavior of the person—to change his or her metaphor. Insofar as the behavior is a response to the person's situation with intimates, that situation must change if the person's communication is to change. Various forms of therapy can be described as ways of responding to the patient's analogies in such a way that the analogies change. Evaluation of outcome should include not only the presence or absence of a "bit" of behavior by the patient but also an evaluation of the changes in the system to which the patient is adapting by his or her special form of communication.