Family Systems Theory: Background and Implications

by Janet Beavin Bavelas and Lynn Segal

How the study of "wholes" rather than parts has advanced our understanding of family interaction.

The study of patterns of communication in a family has many similarities to the kind of study conducted by general system theorists, who seek to discover isomorphic relationships between various and at times seemingly dissimilar systems. In this article we describe the historical context of a systems approach to the family; define basic systems concepts with emphasis on their application to the family; and describe some axioms of human communication theory and the role they play in understanding family communication from a systems viewpoint.

The history of the emergence of modern systems theory from classical science is well known (see 3). However, the application of systems theory to the family did not in fact develop either from the natural sciences or from mainstream social science. Instead, it came from psychiatry and psychotherapy—via applied clinical practice—and its origins are specifically those of family therapy. In the early 1950s, psychoanalysis was the established mode of treatment, and its theoretical assumptions actually proscribed therapist contact with family members (cf. 2, 5). Given these sanctions, psychotherapists used two justifications to legitimize treating the whole family. First, family treatment was called research. Second, this "research" was done on clinical prob-

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lems—especially schizophrenia—that did not respond well to the established psychotherapies of that time.

A research program of particular importance was the Bateson Project funded by the Rockefeller Foundation to study communication. Gregory Bateson had been a participant in the Josiah Macy Conferences, begun during the 1940s, which were interdisciplinary meetings concerned with information, feedback, and systems theory. A group now well known in the field of family therapy, including Don Jackson, John Weakland, and Jay Haley, studied a variety of communicational phenomena. Although the Bateson Project is primarily identified with the "double-bind" theory of schizophrenia (see 1), of even greater importance are its more general implications for viewing disturbed behavior as disturbed *communicative* behavior which is maintained and structured by interaction with others in a social context. Jackson (9) summarized this new viewpoint as follows: "Thus symptoms, defenses, character structure, and personality can be seen as terms describing an individual's typical interactions which occur in response to a particular interpersonal context" (p. 1).

The three most important words in Jackson's statement are "can be seen," for they imply that there is an alternative, new way of conceptualizing psychopathology and therefore a new way of treating it. This is not simply an additional theory about the nature of human behavior but, as Wilder (14) suggests, a paradigmatic leap in conceptualization à la Kuhn, to a new epistemology. Most social science models still reflect the traditional epistemology of physics, based on energy and the first law of thermodynamics (the transformation of energy). This new epistemology was based on the concept of information, on circular rather than linear causality, on pattern, stochastic process, entropy, and, in a sense, the second law of thermodynamics. From this perspective it is not the material structure that defines an object but its organization as defined by the patterns of interaction among its parts.

In 1967, Watzlawick, Beavin, and Jackson delineated the implications of this shift for the study of disturbed behavior:

> *If a person exhibiting disturbed behavior (psychopathology) is studied in isolation, then the inquiry must be concerned with the nature of the condition and, in a wider sense, with the nature of the human mind. If the limits of the inquiry are extended to include the effects of this behavior on others, their reactions to it, and the context in which all of this takes place, the focus shifts from the artificially isolated monad to the relationship between the parts of a wider system. The observer of human behavior then turns from an inferential study of the mind to the study of the observable manifestations of relationship.*

> The vehicle of the manifestations is communication (12, p. 21, emphasis in original).

Many psychiatrists and psychotherapists whose professional interest was the individual person began to ask whether it might be useful to consider the individual as existing in a special kind of ecological system, namely, his or her family. Thus, the beginnings of a systems approach to the family were extremely simple, in that professionals began to look past and around the patient and to "see" for the first time his or her family. However, just as when a camera changes focus the new scene is blurred and often unrecognizable, one does not necessarily know *how* to see the new phenomenon. A new focus, a new language, a new kind of thinking was needed. The infant "systems theory" began to speak a language that family therapists urgently needed in order to understand and convey what they were seeing by expanding their focus from the individual to the family.

The basic terms and concepts of systems theory seem to fit naturally the system called a family.

A system is "a set of objects together with relationships between the objects and their attributes" (7, p. 18).[1] When the "objects" happen to be people in relationships with other people, one of their most important attributes is their communicative behavior. Thus, a family system is a

The following is adapted from Watzlawick *et al* (12, chapters 4 and 5), where more details and further examples can be found

special set of people with relationships between them; these relationships are established, maintained, and evidenced by the members communicating with each other. In general, any human interactional system can be defined as "persons-communicating-with-other-persons." Note that even this simplest definition of a system has the effect of putting the "objects" in the background and bringing their relationships to the foreground. Moreover, as will be seen below, insofar as family relationships endure, they form patterns over time, and it is this patterning over time that is the essence of a family system.

These relationships and patterns make a family system, like any system, whole, not summative. That is, it is a unit of analysis that cannot be reduced further. A non-systems approach to the family would be to enumerate and study each individual family member as an individual personality, with the goal of "adding these up" to form the family. This strategy of reduction to smaller units is almost irresistible, especially when, as in this case, the smaller unit is an individual person—the "natural" unit of psychology and indeed of our intuitive perception. Unfortunately, no advocate of reductionism has ever made it clear precisely how the parts are going to be put together in that great summation of the future, how a family will be understood by the understanding of its individual members. The systems view says rather that it is necessary to focus on the whole and to see parts only in the context of that whole, rather than to collect parts and hope someday they will add up to the whole. These are the complementary principles of wholeness and non-summativity.

If these principles make sense, they raise vexing questions: What size is the whole? How much must be included? If a family were a closed system, this would be easy to answer, because the system would be entirely defined by its members, but, obviously, no families (nor any living systems) are so isolated. Their boundaries are open to many interactions with other persons; individual members may form strong relationships with non-members; and a particular family exists in the context of a larger, extended family. An open system has precisely this multiplicity of inclusion and exclusion, so that defining it is more difficult.

A useful principle for this purpose is that of hierarchical relationships, in which an environment subsumes a system, which in turn contains several sub-systems. For example, the extended family may be an "environment" containing several nuclear family systems; each of the latter may contain significant sub-systems of, say, spouses, of children, or of cross-generational coalitions. It may be useful for some purposes to focus only on the main system; or on the sub-systems that make it up; or, expanding, to fit the system into its next-level environment. Being given such sliding concepts is not the same as being given license to define a particular system as "any or all of the above." Instead, it sets out a problem: For this family, define the system relevant for study; define its

sub-systems and also its environment(s). The criterion will be the influences exchanged. The eldest child, now living away from home, may still have a substantial reciprocal influence with the family, or the communication may be so attenuated that this is in fact an environment-system relationship for purposes of studying this family.

The systems approach is also a commitment
to look at how the parts are connected, and
this is a commitment to process as well as structure.

In some cases, the system may be describable solely in terms of its present process: how it works now. The broad term for this principle is equifinality, which rejects the "genetic fallacy" (10) that initial causes dictate outcomes. Equifinality is the proposition that, in open systems, the process determines the outcome—many beginnings can lead to the same outcome, and the same beginning can lead to quite different outcomes—because the process can override the initial conditions and become the sole causal factor.

This contrasts sharply with "logical" scientific thought that has defined cause-effect relations in a linear temporal sequence. (Indeed, to someone who thinks of the natural order of events as a trail of footprints walking in one direction, this must seem a pirouette into chaos.) Since our intuitive perception of "the march of time" is also temporally linear, it is not surprising that traditional psychological thought has also been that the "why" of the present is always to be sought in the past—parents cause children's behavior, childhood causes adult personality, and so forth.

The alternative can be illustrated by the "obvious" proposition that parental behavior reinforces a child's behavior; for example, that parents reward their child's behavior by giving it their attention and concern, so the child's behavior continues because it is attention-getting. This very reasonable statement has, on close examination, imposed the following temporal distortions. Many different parental behaviors, widely separated in time, have been cut out of their natural context and put in the observer's category, called "rewarding behavior." Similarly, many of the child's actions have been taken out of their place in the flow of time and frozen into another behavior category. Then these categories are put in a fixed temporal order, and one is said to "cause" the other. Oddly, in this particular example, it is the category that comes "after" (the reward) that is said to cause the category that has been placed "before." Common sense would at least demand that the category of the child's behavior, if placed "first," must be said to cause the rewarding behavior. It seems obvious that *both* are causes. The child's behavior leads to the parents' and the parents' behavior leads to the child's, in a circular fashion.

Thus a systems approach asks: What circles are happening in this family? Are there behaviors that lead to other behaviors that lead back to

themselves? For example, in Eugene O'Neill's play, *Long Day's Journey into Night,* the family members watch the mother closely, which makes her visibly nervous, which makes them watch her closely. . .until the circle winds into a spiral leading to the return of her addiction, which they all fear. The above description could also have begun: the mother is visibly nervous, which makes the family watch her closely, etc. Our addiction, as analysts of human behavior, is to "beginnings" and "causes"; we cannot help thinking that it *must* start somewhere (11). And well it may, but it may not matter any more where it started—which is the principle of equifinality.

Two general kinds of equifinal processes, negative
and positive feedback, are the most well known.

Open systems, like the family, in which input is possible, are likely to deal with that input by a feedback process. This much-misused term is actually a description not of an individual action but of an entire system's sequential function. For example, negative feedback is the organization of the system to maintain stability (homeostasis) and to prevent change. Suppose the child, at about age 18, begins to leave the family, which would be a major change in the system. Some families might react to the child's initial moves by strong counter-measures: dissuading the child, imposing sanctions against independence, or even labeling the effort to leave as deviant and "rescuing" the child from such an action. In some cases, where the child has not left home successfully by his or her mid-twenties (e.g., 6), then it may be even more apparent that everyone, including the child, is contributing the essential elements of a negative feedback system. The parents may urge the child to go out on his or her own, and the child does so; but things somehow go awry, and the child must be rescued and brought home again. The essential process is as follows: A change begins and is detected by the system, which counter-acts the change, and the system restores homeostasis. In the end, nothing changes, because negative (change-negating) feedback is operating. It does not matter who takes which roles—whether the child tries to leave or stay, or whether the parents try to push or pull—at any particular time. The system rule is to prevent this change, and a process of negative feedback characteristic of the family as a whole will maintain the status quo over time (cf. 8).

A positive feedback process, on the other hand, will increase change over time. It may be, for example, that the parents' and the child's reaction to his or her forays into the outside world is to encourage and increase these; independence is engendered by all. This will eventually change the system so much that the child leaves and the system is now reconstituted.

Positive and negative feedback do *not* correspond to positive and negative reinforcement, because the latter refer to single acts by individuals, not to a systemic process. Furthermore, either of these acts of

reinforcement may be part of either feedback cycle. For example, parents may negatively reinforce by punishing or withdrawing reward for the child's independence, or they may positively reinforce by rewarding or withdrawing punishment for dependence. Either would be part of and maintain a negative feedback system for the entire family.

There is nothing inherently good or bad about either feedback system in a family; this depends on what the family wants and what works for its members at various stages in family life. A system that pushes a child who is too young out of the family by positive feedback is likely to be harmful; by late adolescence, such a feedback cycle is considered desirable in many cultures. Similarly, in the parental sub-system, a positive feedback cycle between husband and wife could mean escalating competition in a "tit-for-tat" that quickly drives them apart; or it could take the form of increasing growth and autonomy, desired by both as their family grows up. In other words, each of these feedback processes are mechanisms for describing *how* a family system operates.

> *To apply the systems approach to the family*
> *requires some set of communicational assumptions*
> *for further definition and observation.*

Closed systems operate by energy exchange, but open systems—and especially those of interest to modern systems theorists—exchange information in addition to or instead of physical energy. Most of our relations with others in society are based on and regulated by our communication with them. Instead of using formal memos, television ads, and computer discs, families typically communicate face-to-face, by phone, and by notes and letters. Whatever the medium, we will reassert below that (a) all behavior may be communicative, at least in the presence of another person; and (b) all communication defines, maintains, or changes the nature of the relationship between communicants.[2]

First, in the presence of a potential receiver, any behavior may be seen, by self or other, as communicative. However, if all behavior is communicative, then it is implied that all behavior was *intended* to convey something, and the door is open to arguments (among professionals and participants alike) about *what* was intended, whether this was conscious or unconscious, in whose opinion, and so forth. This is especially problematic when we include nonverbal communication, which does not have a code as clearly shared as does verbal language (cf. 13).

One way to solve this problem is to abandon a monolithic definition of communication for one that identifies these sources of discrepancy.

[2]Other axioms, of course, could be applied in this context. Those used here have been adapted, with some revision, from Watzlawick *et al.* (12, chapters 2 and 3), where the original versions, along with normal and pathological examples, can be found.

First, there can be *sender* communication—the sender intended to encode a given message and to send it to the receiver(s), e.g., "I hate you." It may be that this message was not heard or was reinterpreted (e.g., "She's crazy, she doesn't mean it"), but the sender communicated, or attempted to send this information. Second, there can be communication from the viewpoint of the *receiver*—the receiver decoded a message from someone's behavior and believes this to be a message (e.g., "Your silence means you agree"). Whether or not the sender intended to send this or any other message, the receiver got one, because he or she extracted information from the other's behavior by attribution of intention. Obviously, when sender and receiver agree about the message sent and received, we have a third kind of communication, a *mutual* communicative act. The reason for including sender and receiver communication is that, while they are not "ideal" communication, they are of pragmatic importance: they do affect behavior and relationships, often profoundly.

Thus, we have set a stage on which every behavior is in some sense communicative—to the sender, to the receiver, or to both. *What* is being communicated, in all contexts including in families, is often the exchange of facts, opinion, perceptions, wishes, and the whole gamut of information about the world, including ourselves. People talk about what they talk about; their communication is in one sense "about" the content of their messages. But to this must be added another dimension. All communication conveys not only content but also conveys information about the relationship between the participants. For example, the imperative "Take out the garbage" not only conveys what the sender wants done (this is the content aspect), but also conveys a certain relationship between sender and receiver, i.e., one in which this order can be given.

Usually, the relationship aspect of communication must be inferred. People do sometimes· talk to each other about the nature of their relationship, for example, "I'm in charge," or "We'll act as equals," or "I'm dependent on you." But whether or not such explicit relationship definition is going on from time to time, it is always happening implicitly · whenever people communicate, which is whenever they behave in each other's presence. A critic of this position could say that such inferences about implicit relationship definitions cannot be proven except by intuition; who can say whether they affect behavior? Even more, the relationship inference could be a figment of the experts' imaginations, never or only randomly made by participants.

In an initial effort to test this issue, Chovil (4) examined whether *laypersons* could systematically encode and decode relationship information using communication content. One group of subjects was asked to write "scripts" depicting brief dialogues between dyads with certain (varied) relationship characteristics, e.g., competitive, informal, and intellectual. Another group of subjects was given only the scripts and asked to say what kind of relationship the dyad had. Note that, in the

scripts, no one talked about the relationship; they talked about wallpaper, school courses, jobs, etc. Yet the second group of subjects usually guessed the kind of relationship intended with high accuracy. It appears that we do have some consensus about how content leads to relationship inferences, which implies that this is a pragmatically important part of interpersonal communication. If people can encode and decode relationship from content, then it is plausible that they ordinarily do so.

In this article, we have attempted to assemble some of the disparate pieces of family systems theory into an inter-related whole. For those interested in the family, a systems approach is an essential conceptual tool. Learning to use it teaches us how to see the family as something quite different than an aggregation of individual identities, attitudes, or roles. The systems approach to the family has also, in our opinion, made a contribution to the general theory of systems by expanding its referents, and to the social sciences by introducing a new way of thinking about social interaction, one that is extremely unlikely to have emerged from the study of groups of strangers, whose systemic aspects are ephemeral at best.

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