8-1979

Cybernetic Properties of Helping: The Organizational Level

Klaus Krippendorff
University of Pennsylvania, kkrippendorff@asc.upenn.edu

Follow this and additional works at: http://repository.upenn.edu/asc_papers

Part of the Communication Commons

Recommended Citation (OVERRIDE)

This paper is posted at ScholarlyCommons. http://repository.upenn.edu/asc_papers/206
For more information, please contact repository@pobox.upenn.edu.
Cybernetic Properties of Helping: The Organizational Level

Abstract
The paper examines a very common situation in which help (in the form of goods, services, financial aid or advice) is provided to some group (family, institution, nation) in need. Examples from family therapy, international aid for development, and management consultancy illustrate the characterization of help as an asymmetrical, need satisfying, and temporal relation.

The aim of the paper is to develop a suitable cybernetic and systems theoretical framework for analyzing such relations. One key to this framework is the distinction between organization, information and energy as different kinds of inputs or exchanges. Another key is the distinction between the kind of help that does or does not consider the systemic context in which it is provided, and in the former case whether or not it includes a conception of the cybernetic (circular) nature of the process of helping.

The conclusion contains several recommendations.

Disciplines
Communication | Social and Behavioral Sciences

This book chapter is available at ScholarlyCommons: http://repository.upenn.edu/asc_papers/206
The paper examines a very common situation in which help (in the form of goods, services, financial aid or advice) is provided to some group (family, institution, nation) in need. Examples from family therapy, international aid for development, and management consultancy illustrate the characterization of help as an asymmetrical, need satisfying, and temporal relation.

The aim of the paper is to develop a suitable cybernetic and systems theoretical framework for analyzing such relations. One key to this framework is the distinction between organization, information and energy as different kinds of inputs or exchanges. Another key is the distinction between the kind of help that does or does not consider the systemic context in which it is provided, and in the former case whether or not it includes a conception of the cybernetic (circular) nature of the process of helping.

The conclusion contains several recommendations.

INTRODUCTION

For some time now and for various reasons, we have been interested in the dynamics of helping. As is well known, good intentions often run astray. What is not so well known is why this is so. For example:
(a) developing countries that do accept international aid might find themselves increasingly dependent on the donor of such aid. Unable to solve their mounting problems, and unable to satisfy the rising expectations, they require more and more aid and come to feel politically dominated. Such latent consequences can lead to large scale dissatisfaction, economic crises, political instabilities and military involvements, all of which deplete the resources more rapidly than the aid could develop.
(b) families seeking help from a psychiatrist for one of their members might find themselves increasingly unable to cope without continued professional assistance and mediation of conflicts and thereby become permanently "hooked" to their psychiatrist. The interaction may turn out to be mutually beneficial to prolonging the relationship and not solving the problem that motivated the search for help.
(c) interactions between management consultant and the business firm he is trying to help may also promote his continued involvement in the firm. Without necessarily solving the problem, he may end up in a high level position or with a continuous contract. And, working on the problem, he may contract consultants who engage in interaction with the firm just as he did.

In these examples and many others we could cite here, we observe that help is sought and accepted by someone in need. It necessitates engaging in a relationship between helper and the helped which, for reasons largely of its own, develops into some other relationship that is neither anticipated nor perceived as desirable, at least by one party of the relationship. Although, when one searches for a scape goat, one can usually find one, we suggest that the dynamics of helping is largely systemic rather than motivated by either party. We are interested in this dynamics to the extent that it is the result of interactions within a system comprised of at least two actors, one being a system in its own right, and not an individual.

In this paper we can neither promise solutions to the problems arising out of helping nor being helped nor can we make definite recommendations for when help should not be requested, given or accepted (see Foerster, 1974). We do hope, however, that the conceptualizations herein proposed will lead to predictions concerning when helping becomes counterproductive and to strategies for helping that enhance the well being of both parties to the process.

THE HELPING RELATIONSHIP

One conceptual problem is to characterize the relationship within which help is transacted. We are suggesting three criteria, all of which are based on perceptions, principally on the part of the helper. We leave the actual motivation of the helper—which may range from altruism to self-interest—open.

(1) the relationship is asymmetrical in the sense that one party perceives itself as "helpless" or "in need" and perceives the other as able to but not required to provide what is needed. That the helper is not required to provide the help needed does imply power but it is important to point out that this asymmetry is based on unequal resources rather than on authority or charisma. In theory, such asymmetries do not exist in the free market place where goods and services are exchanged freely and with equal benefit to both parties. They arise,
however, when exchanges pertain to rather unequal or difficult to evaluate transactions. Here we mean "unequal" in the sense that the helper is not fully compensated for what he gives, and "difficult to evaluate" in the sense that the help is probably of more worth to the receiver than to the donor, for example, when offering medical or legal advise in exchange for payment.

(2) It is believed that help will satisfy a need. Indeed, we see no need to invoke such a relationship unless a connection between help and need is implied and perceived as such. While the factual truth of the connection will influence the dynamics of helping, the acceptance of help is based on perceptions which may or may not turn out to be true. Much communication, for example, between patient and physician aims at the patient's agreement with the physician's diagnosis (interpreting a need) and that the treatment is a proper remedy. (To this end the physician's history, reputation and symbolism of competency contributes significantly.) Goods, services or advice that does not pertain to a need is of no help.

(3) Helping is temporally bounded, implying the expectation of a definite termination point. This point may be defined in terms of time, value of aid or needs to be satisfied. If there is no end for help in sight, it seems that the helper-helped relationship is destroyed or transformed into another relationship, e.g., into one of responsibility-dependency.

The objective situation during which help is transacted obviously is important but we must stress the perceptual basis of the relationship. As we shall see, much of the dynamics inherent in this relationship is due to change in perceptions, for example, when the aid does not solve the problem it was intended to solve, when the relationship develops into a continuing one or when the recipient comes to believe that the donor actually pursues selfish interests. We often observe efforts of both parties to the relationship to convince each other that the three criteria do apply—if this serves their best interest—regardless of what the facts may be. And we also observe that changes in perception of the conditions of helping might destroy the relationship even though the objective conditions have not changed at all.

What is important here is that, once the perceptual conditions of helping are met, helper and helped (donor and recipient, therapist and patient, or consultant and client) engage in a sequence of interaction and form a new system. The course this interaction takes depends to some extent on the objective nature of the transactions, but most importantly, on how the transactions and their effects are perceived by both parties. When the above three conditions are no longer perceived to hold, the helping relationship is transformed into something different.

We specifically suggest that the approach taken by the helper, neither his motivation nor the actual transactions, is decisive in determining whether help is indeed provided.

OPEN VERSUS CLOSED SYSTEMS

Epistemologically, we find the distinction between open and closed systems quite confusing. Since helping involves a temporal transaction, we cannot but become involved in this controversy and therefore feel the need for a clarification.

As a conceptual or representational device for organizing data from an observer's environment all systems are closed in the sense that every observer can consider only a finite volume of data and once he has collected them this is all he can base his generalizations on. The failure to observe an important variable tends to introduce indeterminacies in his account but does not render a system open. If he obtains additional information on that variable he merely enlarges the system, redefines his boundary and perhaps complicates his account but does not open or close his system.

Objects that are described as parts of a system may of course be open or closed in the sense that they do or do not respond to inputs from other parts of the system. A system always comprises both an organism or organization and its environment (both of which together are closed) and an important activity of the system scientist is to describe the relation between them. The environment of the system is in the observer's mind.

Helping as we see it involves a system that goes through at least three phases at which different kinds of transactions take place:

First, information about capabilities flows from A to B, information about needs flows from B to A, stimulating an indication of A's willingness to help B:

![Diagram](attachment:help_diagram.png)

Second, and subsequently, help is transacted from A to B, negatively affecting B's needs:

![Diagram](attachment:help_diagram_2.png)

Third, finally and most importantly, B's needs are eliminated and A's help is no longer required, in effect separating the two parts of the system perhaps retaining a mere residual of interactions.

![Diagram](attachment:help_diagram_3.png)

We see that helping involves two initially separate and, if one prefers to say, closed entities that join into a new system of (asymmetrical)
interaction and thereby open up to each other. The purpose of this system is to make itself unnecessary and destroy itself indeed, leaving two separate systems behind.

Systems are thus not open or closed, rather, they are open and closed for different things and at different times. We found it useful to distinguish between three kinds of exchanges. Systems may be open and/or closed to

- energy
  raw material, food and fuel
- information
  advice, knowledge, technology, data and
- organization
  institutional designs, social structure, programs.

These three kinds of inputs form levels. All living things are open to energy and if they appear to be closed, this can only be a temporary state. Individuals or groups that acquire knowledge about their environment, that adapt to new conditions and that can learn to manipulate tools and technology are open to information. To be open to information is a mark of intelligence. It is a peculiar property of biological organisms that, while they are to some extent open to information, they are basically closed to organization. They are unable to change their structure (which is one reason why generalizations from biological organisms, typical in general systems theory, are largely unsuccessful in social groups in which structural changes are rampant). Groups and social institutions are to some extent open to organization. They may change their structure for obvious reasons and exchange structural specifications.

Although one can analyse systems on the level of energy, information and organization, these levels may not be independent in fact. Without some minimum amount of energy, information is not communicable, and without some minimum channel capacity for transmission of information, organization cannot be exchanged and reproduced. Besides providing minimum conditions, they also affect each other. For example, sending disaster relief in the form of large quantities of grain to South America may well solve an immediate (energy) deficiency, but such aid also lowers food prices which tells the farmers (information) that growing grain is no longer profitable. Local adaptation to this situation strengthens the need for importing more grain even after the state of disaster no longer exists. Using subsidies to induce farmers to grow more grain fosters the growth of institutional arrangements to distribute these subsidies, check on their use and thereby has organizational consequences. Obviously, helping is more difficult than simply sending what seems to be needed.

The next two sections are concerned with helping on the organizational level, i.e., where the problem is one of dysfunctional interaction and where solutions lie in the arrangements of parts. The principal example is from family therapy. Although the preceding concerned itself with the receiver's perceptions which we take to be central to whether a helping relation exists, the following concerns itself with the helper's perceptions of ways of helping.

THE FAMILY THERAPY EXAMPLE

Let us look at different types of organizational inputs within the context of a particular family therapy (from research done by Stanton, Todd, Steier, Van Deussen and associates, 1979, at the Philadelphia Child Guidance Clinic in Philadelphia). A common case is that of the family with three children, the eldest son being a heroin addict. The family knows this and, sensing the hardships the addiction appears to be causing, requests help.

One approach might be to deal with the addict on an individual level. However, recent work synthesizing general systems theory with family therapy has enabled the therapist to view this problem from what is described as a family systems perspective. The family systems theorist would look at the addiction within the family's functioning. What we commonly find is that, although the genesis of the addiction may have occurred outside the family setting, it plays an important role in the way the family is organized. We find most of the time that addiction plays a maintenance-type role, functioning as a homeostatic regulator. That is, by perceiving the addiction as the cause of difficulties, stresses within the family are dealt with in some non-adaptive homeostatic way which is extremely dysfunctional for one or more of its members (here, the son as heroin addict).

There is, then, a cyclical functioning as can be seen below in an example where the stresses find the parents separating.

![Family Therapy Cycle Diagram]

1st-order Homeostatic Cycle

It is this negative feedback mechanism that is dysfunctional. Indeed, identifying this cyclical functioning for treatment has yielded highly significantly improved results for many types of "diseases."

We can see, in terms of what has been discussed earlier, that help is needed and the therapist is deemed capable of rendering such help. What the therapist does not always recognize is that he in fact temporarily joins the system and thereby creates a therapeutic situation. Helper and helped have joined to form the "helping" system, which is quite different from the family and the therapist behaving independently. Further, the therapy sees as its goal the solution of the "real" problem that necessitated the help in the first place. Family systems theorists realize that this is not merely the "individualistic" curing of the addict, but, as
Lynn Hoffman (1976) has called it, the "breaking of the homeostatic bind."

Also in family systems theory, families are described as open or closed. From our earlier statements on types of inputs, made clearer by this example, we can see that this is a misleading distinction. Families clearly must be open, at least to energy (and generally to information) inputs. The distinction then is whether or not families are also open to organization. In most drug addiction cases something has gone wrong with the family's own organizing behavior. It has developed as its governor a dysfunctional process which the therapist hopes to rectify by rearranging the interactions.

Only families which are open to organizational inputs may be helped from a family systems theoretic perspective. Families closed to organizational inputs will reject this type of help.

The therapist must, then, get the family to allow him/her to join—temporarily penetrate the family boundary. This is not so easy, especially since these families tend to view addiction as a problem of one of its members whereas it is likely to be one of the family organization. In such situations, organizational inputs may be the most needed kind, but because the organization of the family is so closely tied to its identity, organizational inputs are often conceived to be the most threatening ones, leading to crises within the therapeutic situation, and, perhaps, too frequently, to a rejection of the helper.

Suppose the therapist is successful in joining the family and then succeeds in solving their particular presenting problem. Suppose further that this aforementioned homeostatic bind, if found, is broken or eliminated. What type of family does the therapist leave when he/she attempts to disengage? Has the family's capacity for self-organization been enhanced? Can it reorganize itself, when necessary, to deal with internal and external changes in some manner that is not dysfunctional to one of its members? Or, has the dysfunction simply been forced somewhere else in the family system? Does the solution generate a possibly more serious problem?

What we need then, as helpers, is to become concerned with the interactional consequences of our help. If these consequences are excluded from the way help is administered, some new dysfunctional homeostatic behavior may appear in the family. What often happens to families with drug addiction problems is that, once the original addiction is "cured," the younger brother becomes the "addict," or the "black child." This exemplifies the need for a systemic approach to the formulation of the problem, one that centers on one member simply plays the family's game.

We must recognize in this example that help on the level of organization should change the system and not just a behavior of its parts.

It seems then, that there are four basic types of "therapeutic approaches" here.

1. The non-systems or individualistic approach. Here the therapist typically maps the entire problem onto one individual. For our example, the addiction is viewed as only the addict's difficulty. In this traditional form of giving help, no attempt is made to understand the system or systemic properties involved. Consequently, the system (or family) that may have generated the problem or that maintains it for whatever reason is ignored. Rarely will the individual's solution effect any change in the system of which the problem is a consequence. Usually, the patient relapses after therapy, another family member develops problems, or the family splits up. Further, the individual, when disengaging from the therapist and returning to his environment, is frequently found not to have changed at all. We see this all too often when a perceptual or psychosomatic illness is isolated from its family situation and treated purely in a medical fashion. The real problem has not been treated. Thus, neither the view of the presenting problem, nor its "solution" entail systems approaches.

In contrast with the individualistic (non-systemic) approach, we recognize three systemic approaches:

2. The prescriptive approach. Here the therapist recognizes the family as a system, specifies the interactional nature of the problem and can identify the dysfunctional homeostatic (maintenance) role which the addiction plays in the family. The solution attempted by practitioners of this approach is one of advising the family on their dysfunctional organization, and suggesting new organizational forms that might not include the problem at hand. A suggestion the addict should be allowed more individual autonomy might be typical here.

However, here the therapist does not really consider the consequences of his/her solving of the family's problem.

In assuming the role of a prescriber, the therapist does not consider himself to be part of the temporal therapeutic system. He is an outsider, "above criticism," and an authority who considers the pathological system as an object. Additionally, the giving of advice removes, to a large extent, the family's capability for solving the problem themselves. This can create an increasing dependency on the prescriber/therapist.

So here, although the systemic nature of the problem is correctly perceived, the prescriptive way the problem is solved excludes the therapist as part of the therapeutic situation, and is, hence, a non-systemic approach to the process of helping.

3. The insightful approach. Here again, recognizing the function of the addiction within the family, the therapist perceives the nature of the problem to be a systemic one. But the solution attempted is one of providing the family with insight into and understanding of the true nature of their difficulty. The approach assumes that if the family would understand the structure of the dysfunctional cycle in which they have entrappe themselves, they would find their own way of avoiding it. The therapist does not prescribe a solution, rather he/she raises the level of consciousness in hopes that the family finds its own solution.

The main difficulty with this approach is that change is in fact rarely effected in the arena in which it was needed. Neither do people necessarily recognize their own problems. Nor are families that have developed some level of understanding able to solve these problems.
Again, the true consequences of the solution have not been fully understood by the therapist. This may again result in the family becoming increasingly dependent on the therapist when their problem returns in the same or other forms.

As with the prescriptive approach, the systemic nature of the problem might have been correctly perceived by the therapist. However, since he does not prescribe a solution, hoping that a solution will emerge through the individuals' understanding of their pattern of interaction, such a therapy is subscribing to a cognitive systems approach. This approach is one that assumes that a system is understandable by its members. In addition, it assumes that if the system is so understood, organizational changes are naturally forthcoming.

4. The morphocatalytic approach. Once again the problem is seen systemically—here, the homeostatic role of addiction. The solution attempted is also that of changing the organization of the family, but recognizing and taking account of the fact that the therapist temporarily joins a larger system of which he and the addict producing family are a part and that this temporary system is expected to initiate morphogenesis. Once initiated, morphogenesis then takes its own course, usually after the therapeutic situation disappears.

"Kicking the boat" is one characteristic of the therapy in which the therapist attempts to bring the family out of its locked-in homeostasis and pushes it to a different point at which a new form of stability might be reached. The structural and strategic schools of family therapy are the prime proponents of this type of intervention.

What happens is that many of the organizational constraints such as may have existed in a rigidly-structured family are removed. The communication/organizational variables affecting the family's interaction are examined and worked on. For example, how does the mother talk to the father in the presence of the addict? What rules does the family generate to solve its tasks? It is in this arena that the homeostatic functioning may well have its base.

Here, a change in the system is effected which enables it to demonstrate its capacity for self-organization. The system is brought over the threshold and a dependency on the therapist is not developed.

Of course, the family organization may be kicked too much, or the attempted system's change may simply not work, as in the case of a family that is defensive of its structure and therefore closed to organizational inputs. However, the morphocatalytic approach does allow for the family's future development and increases their ability to deal with a changing environment.

Summing up this example then, we have seen how the individualistic approach would not even recognize the relationships of the problem to the family as a system which, unless the problem is totally localized, negates any therapeutic efforts. The prescriptive and insightful approaches can allow the therapist to perceive the problem in its systemic setting but do not necessarily allow for a proper systems solution. The morphocatalytic approach is the only one to both appreciate the systems process involved and also enact a systems solution.

Some additional points may be relevant here. The types which do recognize the systems process involved both the prescriptive approach and the insightful approach do not necessarily allow the system to close after help has been rendered. The systems may be yet incapable of dealing with their changing environments.

In fact, without closure, a new cycle may well have been generated, albeit as a different level, centered around the therapeutic intervention. That is, the therapist may serve the same maintenance role as other family members in some new higher-level cyclic process, unless he or she can change the system and catalyze more morphogenic behavior. This higher level cycle has as its basis the previously described homeostatic cyclic process with its governor being the therapeutic intervention. The only change may be that the particular style or "disease" at the heart of the particular basis, or inner cycle, may change after each intervention. An example is the family therapist with an individualistic approach who cures the eldest son's addiction and gets his behavior out of its maintenance role only to find that thereafter the younger brother or sister assumes the older brother's role, becoming a new "addiction."

---

**Diagram:**

- 1st-order homeostatic cycle
- Non-systemic "cure"
- 2nd-order Homeostatic Cycle
- Help needed
- Therapeutic situation

A family of this kind is, in Bateson's (1979) sense, addicted to a style of interaction, to their "necessary" problem.

We might note that some families may require even a good therapist two or three of these "cycles" to effect a system shift, but this system shift must occur at some point if the family system is to be capable of self-organizing behavior.

What we have seen is that the help itself (here: the therapy) may, by not affecting the proper system change, produce a dependency for that particular helping relationship which may, in the long run, deny the system's capacity of self-organization.

**Generalizations and Recommendations I**

In the context of family therapy, we have been proposing essentially three distinctions which are generalizable to a variety of different areas of helping behaviors. These were:

(A) the problem for which help is requested is regarded as systemic in nature, i.e., as the...
result of the pattern of interactions among the parts of the whole, or

(B) the problem for which help is requested is regarded as one of a dysfunctional part of the whole, the interactions being essentially ignorable.

This distinction is essentially one of the power of conceptualizing the problem: systemic or wholistic. In the former case we distinguished further:

(a) the helper's approach is one of joining a circular process with the one in need, i.e., he applies the systemic concept not just to the helper but also to the dynamic of the helping relationship which includes the helper as well, or

(b) the helper's approach is one of regarding himself as separate, outside or removed from and perhaps above or in a position superior to the one to be helped. For the helper, the helped then becomes an object in need. The cybernetic properties of helping do not play a role in the way help is rendered.

This distinction is essentially one of the order of embeddedness of the knowledge required to help.

The distinction is analogous to the distinction between first order cybernetics and second order cybernetics, i.e., the distinction between the cybernetics of observed systems and the cybernetics of observing systems. (V. Foerster, 1974). The helper who attempts to invoke changes in a system by linking up with it to form a larger system requires a very different kind of knowledge than the one who simply delivers.

We also distinguished between whether:

(i) the helper considers himself in the role of a creator of conditions that would allow the helped to help himself, or whether

(ii) the helper considers himself in the role of an expert, advisor or provider whose role is to make the solution to the problem available.

This distinction is one of the level of the solution to the problem.

On the organisational level, help of the kind (A, T) is called morphocatalytic, in which the therapist disturbs the family organization enough for it to overcome the homeostatic mechanism that would bring it back to a dysfunctional interaction pattern. On the informational level, Bateson (1972) called this kind of help deurero-learning which is learning how to learn rather than being trained. On the level of energy help of this kind would result in the receiver's enhanced efficiency of energy conversion.

We do not wish to deny the need for individualist kind of help or the need for experts to be asked to perform a certain specified task. However, we regret to observe that various forms of professionalization of the helper has given way to both (ii) overt (a) and (b) over (a) despite the reluctant acceptance of (A) over (B). For social and structural problems we maintain, without proof, the preference for a radical systemic (A, a) approach and, without proof, a high level (i) solution to problems.

With this preference in mind, we suggest that many helping relations go astray precisely because an inappropriate kind of help is given. Social problems are not engineering problems, and to simply provide what someone in need asks for may not help at all.

International aid to developing countries provides ample examples. We already mentioned the dysfunctional consequences of sending too much food as disaster relief into a country that normally grows such or similar food itself. Providing energy to compensate for a deficiency invariably decreases the capacity for energy conversion and starts a vicious cycle needing more and more - just like the traveler, say in India, who learned to appreciate the convenience of having his suitcase carried by a porter ends up not to be able to travel without a porter around. We would recommend the provision of energy only to the extent that it enhances the ability to convert energy as needed.

Another example involves dysfunctional consequences of technology transfer (information). Usually technology is thought of and employed in order to relieve manual burdens, enhance adaptation and ultimately improve the standard of living. Such conceptions tend to be shared by both developed and developing countries. But the facts may be rather different. What donors and recipients of such technology rarely realize is that any technique, any piece of machinery, requires a complex support system of matter-energy resources, interfaces with other technology and appropriate institutional structures. In the absence of such a support system the imports of western technology into a developing country often render its use suboptimal up to the point at which such technology is cancerous and un-economical. Tractors might be good at sloping fields in nearly all countries, but they also require gas, repair stations, trained personnel, put a lot of farmers out of work, etc. Introducing tractors in a virgin context might mushroom into organizational problems which, if they can even be solved, might change the whole society far beyond what the technology aimed to solve. A systemic conception of the problem (A) would hardly lead to technological transfer unless a suitable support system exists or develops in parallel. A systemic conception of the process of helping (a) would hardly lead to technology transfer. Even so a developing country might request this because it would recognize the path to a prolonged relationship of uncertain outcome between donor and recipient.

Examples of this kind are many. What they are suggesting is that help does not easily consummate itself. A cybernetic understanding of the process of helping, including the perceptions of the process, has led us to isolate types that are more likely than not to go astray. We are most hopeful that the radical systems perspective (which includes a systemic conception of the problem (A)) as well as a cybernetic conception of the helper-helped relation (a) helps groups (families, firms and nations) to help themselves (i) and we hope to do more research in this direction.
REFERENCES

Bateson, G.
1972 *Steps to an Ecology of Mind*. New York: Ballantine

Bateson, G.

Foerster, H. von

Foerster, H. von
1974 *Cybernetics of Cybernetics*. Urbana, IL: Biological Computer Laboratory, University of Illinois.

Hoffman, L.

Stanton, M. D., T.C. Todd, F. Steier, and J. M. Van Deusen