

# The March of the Army Ants

Need Identification and System Response in Complex, Evolving Systems of Care

by Patricia Miles, Neil Brown and John Franz

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*Army ants, the voracious predators of the jungle, march in long black columns that consume every living thing in their path. Almost nothing can stem their onslaught except fire and broad expanses of water. Yet these primitive creatures have a key weakness. Behaviorally, they are hard-wired to follow one another in rigidly held ranks. When the ants encounter a barrier they cannot cross, the leader will veer off course to find a way around the obstacle. The other ants always follow right behind. Occasionally, however, the leader will have to make such a wide circuit that it ends up behind the last ant in the parade. At this point, its behavioral circuits kick in and it is compelled to follow the caboose ant. The swarm is then locked into a circular path. As the ants become hungrier, they march harder and faster, but can't break out of the circle. Eventually, they starve and die.*

At times our system reform efforts may begin to seem like the parade of the army ants. The harder we try, the more we feel like we're marching in circles. This article will explore some ideas for breaking new ground in system redesign by using the notion of perpetual novelty to restructure our system of care so that it is able to quickly and effectively meet needs without being trapped in an endless loop.

## **Just tell us what you need**

The circular march in the traditional process of system reform often starts with the best of intentions. Most practitioners have come to agree that successful human services must be keyed to the unique strengths and needs of each service recipient. But the challenge lies in developing a new set of responses for each individual who walks in the door.

Most efforts to change the way services are provided are the result of a perception that important needs are currently not being addressed. This viewpoint may derive from repeated statements of dissatisfaction by people receiving services, from the efforts of those advocating on behalf of individuals and families in the service system, from expressions of concern by current service providers, from media coverage of the issues and through presentations by consumers, friends and family members at public hearings.

The next step is typically to conduct or commission some sort of data probe which may include a formal or informal survey of the needs statements of individuals receiving services. In that process, individuals are contacted and asked, "What could we do to make your life a little better?" Implied in the question is a promise to use the information gathered to fashion a response which will in fact do something to help that person.

But when the data is shared with other system operators and becomes public information, the promise changes. Secondary stakeholders, such as elected officials, managers and even direct

service staff, assume that their task is to prepare a menu of preset service responses, crafted to meet the collective needs of the individuals surveyed. As a result, this new or amended list of options now focuses on the needs of groups, rather than individuals, and may have a poor match with the original input of the people who were interviewed.

### **Actually, what you need is what we've got**

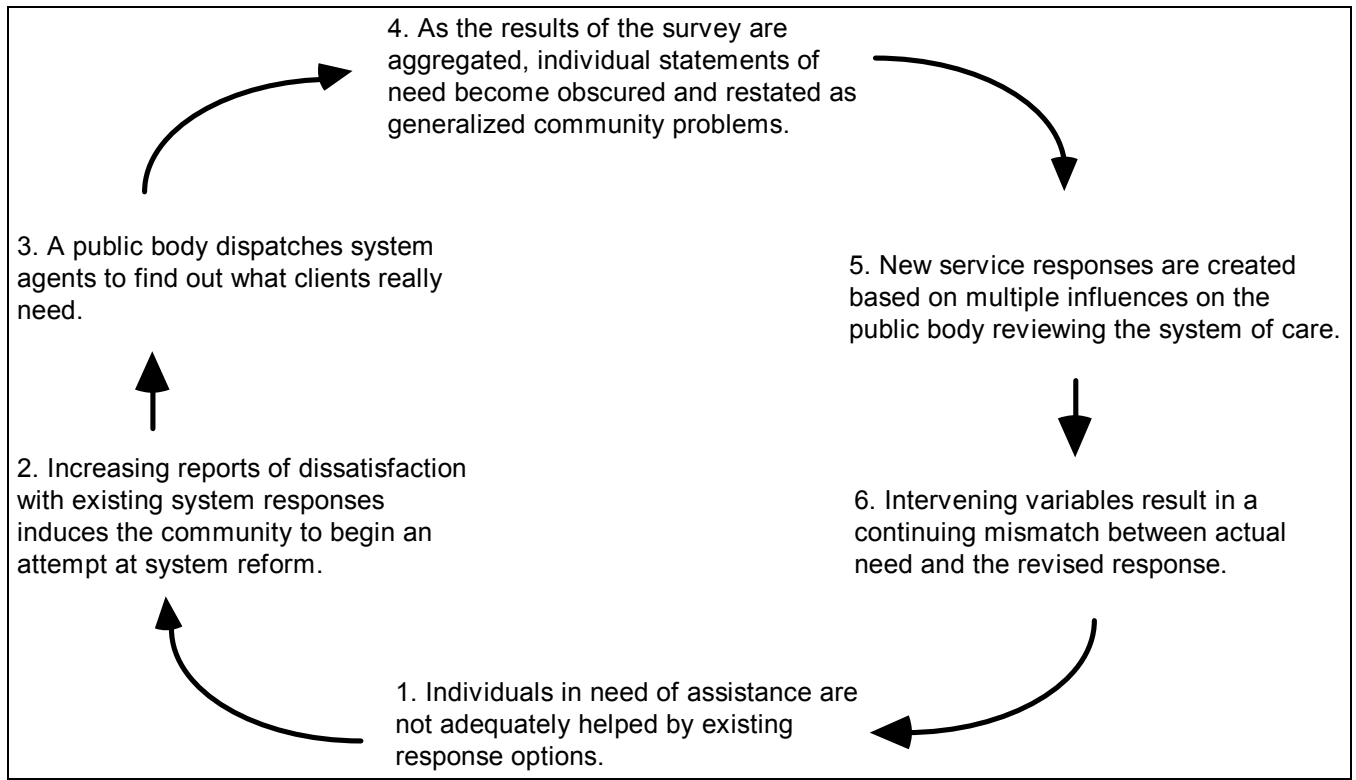
Several intervening factors may cause this disparity between the needs that were heard and the responses that were created. They include:

- The person listening to the individual describe his or her primary needs may misunderstand that person's message, or reframe it in the belief that the individual is incapable of accurately stating those needs.
- As increasing numbers of varied individual statements of need are aggregated by the need collectors, and especially as they are played against other portrayals of need by external evaluators, the concrete sense of each person's distress may become obscured and restated as generalized problems.
- The perceived need for public accountability between funders and service providers results in a need for reporting and monitoring. Since reducing human suffering is difficult to measure, we tend to quantify our deliverables by counting the number of times the interventions established through the public process have occurred. Unfortunately, these interventions have often been standardized on the basis of a group definition of needs, reducing their relative effectiveness for any specific individual.
- Few public bodies who carry out this sort of function operate in an open options environment. Because of external mandates imposed by state and federal law, lawsuits, political concerns and media pressure, the new package of services is likely to drift even further from the original goal of meeting individual needs.
- Even if we can reliably transfer need statements to implementation, the newly reformed system and its adjusted menu of services may still be ineffective for certain individuals. A considerable period of time may have passed from the original polling of needs until the new responses became available. As a result, what those individuals now need may no longer correspond to the services created on their behalf.

A strange backlash can occur at the end of a process of system reform if the needs of a specific individual fail to match the interventions tailored for the group to which that person is supposed to belong. Consumers may be reprimanded or even rejected from services for not needing what the system worked so hard to create.

Over time, however, as more and more people articulate needs which are out of sync with the new menu, it rapidly ages. Calls begin to emerge for another system reform, and the circular march begins anew.

## CIRCULARITY IN SYSTEM REFORM



If the inability to match system response with individual need is a key obstacle causing futile attempts at system reform, then the remedy lies in developing methods for improving the link between need and response. Over the past ten years, a variety of techniques for achieving this outcome have been attempted, with varying degrees of success.

### *1. Hiring non-traditional empathy agents*

Focusing on discrepancies caused at the initial point of contact between system and client, some reform efforts have led to system implementers filling new staff positions with people who may be in a better position to hear and understand the need statements of individuals. Some of these non-traditional agents might include parents who have raised children with severe emotional disabilities to help new parents seeking assistance, people who live in the same neighborhood and have the same cultural and ethnic orientation as the majority of individuals requesting service, recovering persons to help people looking for assistance with substance abuse problems, and young adults who have brought their lives around to help youth at risk of involvement in criminal gang activities.

The newly hired staff take on the role of translating the needs statements of clients into a format which fits with the currently available response menu. They also serve as connectors to increase the likelihood that hesitant clients will work more closely with service efforts.

If there are items on the menu which meet the now better understood needs of individuals, this effort pays off handsomely. Even where there is a poor fit between need and service, crafty empathy agents can manipulate both client statements and system responses to improve the correspondence.

On the other hand, where the congruence between need and response stays low, and where the non-traditional agents are not able to finesse sufficient change to obtain a workable connection, this strategy can have a relatively minimal impact. Because we tend to associate success with the delivery of large units of predefined services, even the most independent empathy agents may gradually shift their focus to altering people to conform to what is available in the system.

## 2. *Various forms of intensive case management*

Probably the most common method by which systems have attempted to improve fit between need and response has been the use of case managers. This label has been used to describe a wide range of activities in the human services industry. Few are sure exactly what a case manager is and what they are required to do. Families frequently express concern with being considered a “case” and being “managed” by someone.

For the purposes of this article, however, case management is an ideal term for the tasks we are attempting to describe. In general, case managers are expected to identify the needs of an individual and find the best available docking site in the system where that person’s needs can be met. Thus, case managers can be seen as navigators who guide clients to one or more service delivery points, rather than being the actual dispenser of needed resources. In practice, however, many case managers deliver services as well as directions. In fact, a case manager frequently acts as a buffer to reduce the inaccuracy or the time delay in connecting response to need.

Many variations on the case manager’s role exist. It’s possible, however, to arrange them in three basic evolutionary stages:

Traditional case management. Traditional case management assumes that a fixed constellation of service options exists within the community and that the case manager’s role is to find the closest fit between service and need. If the fit is poor, the case manager’s job is to help the client make the changes needed in order to receive as much benefit as possible from what is available. If the client fails to show improvement after an intervention, it might not be unusual to hear comments like “They just weren’t motivated,” or “They just didn’t put forth enough effort.”

Transitional case management. Transitional case managers attempt to adjust both clients and service delivery options. They recognize that an inexact match will have little benefit for the people they serve. Acting as an advocate for their clients, they frequently try to convince service providers that they should change a given resource to make it more appropriate for a specific person. Acting as a system agent, they also attempt to convince clients to accept the service option which is the closest available approximation to what the client needs.

Unfortunately, as they fulfill both of these roles, transitional case managers must absorb not only the frustration of clients who are not receiving the services they need, but also the anger of service providers who expected the case manager to do a better job of getting the client to make use of the existing services.

As a result, the case manager is often faced with the same dilemma as the consumer. As long as the ability to hear and answer statements of individual needs, whether uttered by the individual or repeated by the case manager, is not the foundation of service delivery, building

effective correspondence will be an uphill battle. Stuck, as they usually are, between rocks and hard places, it is not unusual to hear transitional case managers mutter phrases like, “Why didn’t I become a forest ranger?”

Entrepreneurial case management. A recent development in system reform has been an attempt to move resource definition closer to the consumer by investing the case manager with direct authority over resources. In these systems, case managers have been given access to a certain amount of open-use funds with which they can purchase non-traditional supports from service providers, or leverage greater flexibility in existing services.

The degree to which this approach can improve the fit between need and response depends on a variety of factors. Even though they have a considerable amount of flexible funds, entrepreneurial case managers may still find they have little control. As they charge into a system with the express purpose of tailoring services to meet individual needs, they may encounter resistance and lack of capacity on the part of the providers. Over time, they may begin to overlay their discussion with individuals regarding their unique needs with their knowledge of what the existing providers are willing and able to do. And, once again, the tendency shifts toward giving people what is available rather than what they really need.

Another limitation is that regardless of the type of case management system used, a community has to decide what percentage of their human service funds should be absorbed by the transaction costs associated with system navigation and how much should go toward providing resources to individuals in need.

### *3. Buying outcomes instead of services*

A third strategy for moving system response closer to the needs of individuals is to alter the way services are funded and evaluated. Entrepreneurial case management includes some degree of funding changes, primarily through allowing the case manager to bring funds that are closely tied to a specific family’s needs to the negotiations for innovative supports and services. But in most cases, the entrepreneurial case manager is still buying some form of activity on the part of the provider. The contract is fulfilled as long as the designated services are delivered - regardless of the impact on the individual being served. And overall, the service environment is judged by the amount of uniform services delivered, rather than the number of innovations which have occurred to better meet human needs.

A number of states, including Washington State and Ohio, are piloting a new approach. The emphasis on purchasing services is being balanced with a growing focus on achieving meaningful results from those services. Accountability becomes more and more important as taxpayers demand a measurable return for their human service investment.

Outcome-based funding is sometimes, but not always, included as part of a system of managed care. But just as often it is simply incorporated in a contract between a public agency and a provider to insure appropriate support for an individual or family with complex service needs. The provider agrees to take responsibility for achieving a specified goal for the individual or family in return for a preset monthly or annual fee. It is up to the provider and the client to decide how best to achieve the desired outcome.

Although empathy agents, entrepreneurial case managers and outcome-based funding can all help move service response closer to the statement of need, none of them, by themselves, are enough to remedy a system’s natural tendency to routinize the provision of care. Without constant reinforcement for innovation, we tend to settle back into production-line operations.

Tradition, doing things the way we've always done them, drives design as much or more than personnel, structure and funding.

If this is the case, what can be done to foster enduring freshness and creativity in our systems of care? How do we keep from being trapped in a closed circle of ineffective planning?

### **It's scary outside the circle**

There's one thing you can say for army ants trapped in a locked feedback cycle: at least they know exactly where they're going.

On the other hand, consider the plight of some poor ant who, perhaps because of a genetic mutation, has the capacity to figure out after about the fiftieth time around the same tree that the troop isn't going anywhere. It can set out on a new direction, but has absolutely no idea what will happen next. To be successful, innovators need encouragement. If we want to prevent our systems of care from getting bogged down, we need to support the ants who are willing to step outside the circle and establish a guide star to help them get us back on the right path.

One way to step outside the circle is to introduce the concept of perpetual novelty to the design and delivery of innovative human services. Perpetual novelty is a concept drawn from the new science of complexity. It is one of the key characteristics of complex adaptive systems - systems that don't lock into a preset pattern every time the leader bumps into the caboose.

John Holland, a University of Michigan cybernetics professor has identified several attributes of adaptive systems.<sup>1</sup> They can be modeled mathematically, but also are observed throughout our world - in flocks of migrating birds, in our immune systems and in successful social and cultural organizations. Three of the characteristics Holland has proposed may be useful guidelines when placed in the context of human services delivery:

*1. Complex systems are generally composed of many interconnected yet independent agents acting in parallel.*

Although the agents are independent, each bases its operations on the same set of primary rules. These rules, or self-organizing principles, are simple, but known and applied by each agent in the system. In a social services context, a step toward developing a complex, adaptive system would be to establish a single set of basic rules of operation that are implemented consistently across all service providers, and to increase each agent's freedom to interact directly with any other service agent in the community on behalf of a person or family in need.

*2. As systems become more complex, control tends to become more dispersed.*

To shift to a more adaptive response pattern, a service agency would have to find a way to transition out of the traditional, highly vertical hierarchy of control found in most organizations. Systems would have to move from a centralized management and processing structure to one in which expertise, project definition and team development are shared throughout the points of contact where needs are heard and responses fashioned.

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<sup>1</sup>These characteristics are adapted from the discussion of Holland's work by W. Mitchell Waldrop, in Complexity, published in 1992 by Simon and Schuster, New York.

3. *Complex adaptive systems have multiple levels of organization, with each level serving as a building block for the next.*

In a perpetually novel system, agents must have ready access to the information available from other agents. Ideas and innovations from every agent's experiences form the flexible and evolving structure through which the system grows and changes. Building upon success, and learning from failure, adaptive systems gain increased knowledge and understanding for use in the future. Rather than reinventing the wheel with each new challenge, a perpetually novel system would tend to experience innovation as an evolutionary rather than revolutionary process.

### **Finding a focus for innovation**

How can we create a system in which perpetual novelty is the basic organizing principle? One answer comes from returning to the question: "Who are you and what do you need?"

If we place a high value on our capacity to hear the voice of the individual in stating his or her needs, we allow input which is as unique as each of the people who engage our systems on a daily basis. Recognizing that developing strategies to reduce human suffering cannot be standardized, systems would have to adapt to each need statement presented to the system.

Administering and evaluating such a system would certainly be interesting.<sup>2</sup> Managers would be faced with designing organizational structures that foster creativity rather than simply assuring the efficient delivery of uniform services. Evaluators would count innovations in care that occurred during each planning cycle instead of units of services.

By concentrating on innovation as a means of avoiding the repetitive experiences of failure that plague both army ants and locked-in systems of care, each service encounter would become a new enterprise. The energy to sustain this continuing process of discovery would come from an absolute dedication to carefully and clearly hearing each new client's statement of need.

No longer forced to march in rigid columns of categorical service delivery, as agents of a receptive and innovative system of care, we would be independent and empowered. But, just as importantly, we would be linked with and supported by both our colleagues and the community through a common commitment to hearing and answering the perpetually unique pleas of the individuals who come to us seeking help.

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<sup>2</sup>Cf. Peters, Tom. *Liberation Management: Necessary Disorder for the Nanosecond Nineties*. New York, Knopf, 1992, and Wheatly, Margaret J., *Leadership and the New Science: Learning about Organizations from an Orderly Universe*. Berrett-Koehler Publishers, Inc., 1992, 1994.