TRANSFORMING THE SYSTEMS MOVEMENT

BY RUSSELL L. ACKOFF

The situation the world is in is a *mess*. This hardly requires documentation; it's obvious. Furthermore, as Leslie Gelb observed in his article "Fresh Faces" (*The New York Times*, December 8, 1991), the prospects for improvement are not promising:

"[T]he emerging world requires a new foreign policy agenda, and fresh faces to execute that agenda. The trouble is, the same old 'experts' are still running foreign policy and most of them only dimly understand the world they preside over. Indeed, few people today, in or out of Government, have the background and skills to grasp, let alone direct, the new agenda."

Reform will not do it; transformations are required, two kinds. First, a transformation of the way nations and international institutions handle global affairs, and second, a transformation in the way systems thinkers collectively conduct the systems movement. The second must come first if we hope to have any effect on the global mess.

Doing the Wrong Thing Right

Reformations and transformations are not the same thing. Reformations are concerned with changing the means systems employ to pursue their objectives. Transformations involve changes in the objectives they pursue. Peter Drucker put this distinction dramatically when he said there is a difference between *doing things right* (the intent of reformations) and *doing the right thing* (the intent of transformations). The righter we do the wrong thing, the wronger we become. When we make a mistake doing the wrong thing and correct it, we become wronger. When we make a mistake doing the right thing and correct it, we become righter. Therefore, it is better to do the right thing wrong than the wrong thing right.

This is very significant because almost every problem confronting our society is a result of the fact that our public-policy makers are doing the wrong things and are trying to do them righter. Consider a few examples.

The United States has a higher percentage of its population in prison than any other country, and simultaneously has the highest crime rate. We have more people in prison than are attending college and universities, and it costs more per year to incarcerate them than to educate them. Something is fundamentally wrong.

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Most who are imprisoned are subsequently released. As criminologists have shown, those released have a higher probability of committing a crime when they come out than when they went in, and it is likely to be a more serious crime. Prison is a school for learning criminality, not a correctional institution.

In quality, the healthcare system of the United States is ranked 37th by the World Health Organization. We are the only developed country without universal coverage; about 42 million people in our country have no healthcare assured. Moreover, study after study has shown that much of the need for the care that is provided is *created* by the care that is given: excess surgery, incorrect diagnoses, wrong drugs prescribed or administered, unnecessary tests. The fact is that the so-called healthcare system can survive only as long as there are people who are sick or disabled. Therefore, whatever the intent of its servers, the system can only assure its survival by creating and preserving illness and disability. We have a self-maintaining sickness- and disability-care system, not a healthcare system.

The objectives that must be changed in transformations are not usually those that are proclaimed; rather they are the ones actually pursued. For example, most corporations proclaim maximization of shareholder value as their primary objective. Any objective observer of corporate behavior knows that this is an illusion. As a study conducted a while back at GE showed, the principal objective of corporations is to maximize the security, standard of living, and quality of life of those making the decisions. Recent disclosures at Enron and WorldCom, among others, made this abundantly clear.

A similar discrepancy between objective proclaimed and objective practiced can be observed in most organizations. For example, one could mistakenly believe that the principal objective of universities is to educate students. What a myth! The principal objective of a university is to provide job security and increase the standard of living and quality of life of those members of the faculty and administration who make the critical decisions. Teaching is a price faculty members must pay to share in the benefits provided. Like any price, they try to minimize it. Note that the more senior and politically powerful teaching members of the faculty are, the less teaching they do.

Transforming How We Think

Transformations not only require recognition of the difference between what is practiced and what is preached—a transformation called for years ago by Donald Schön in his book *Beyond the Stable State* (Random House, 1971)—it also requires a transformation in the way we think. Einstein put it powerfully and succinctly: "Without changing our patterns of thought, we will not be able to solve the problems we created with our current patterns of thought."

I believe the pattern of thought that is required is systemic. It is difficult if at all possible to reduce the meaning of "systemic thinking" to a brief definition. Nevertheless, I try. Systemic thinking is holistic versus reductionistic thinking, synthetic versus analytic. Reductionistic and analytic thinking derive properties of wholes from the properties of their parts. Holistic and synthetic thinking derive properties of parts from properties of the whole that contains them.

The creation of the department of Homeland Security is a prime example of reductionistic and analytical thinking; the whole formed by the aggregation of existing parts. In contrast, when an architect designs a house, he first sketches the house as a whole and then puts rooms into it. The principal criterion he employs in evaluating a room is what effect it has on the whole. He is even willing to make a room worse if doing so will make the house better.

In general, those who make public policy and engage in public decision making do not understand that improvement in the performance of parts of a system taken separately may not, and usually does not, improve performance of the system as a whole. In fact, it may make system performance worse or even destroy it.

We have not effectively communicated such thoughts to public-policy and decision makers. What should we be communicating to them that would, if heeded, transform our global society into one that is just and equitable, one that would reduce if not eliminate the unequal distribution of wealth, quality of life, and opportunity?

In other words, what should we communicate and be doing that could promote development of the world and its parts by changing the way public policies and decisions are made?

Up to now, those of us in systems have had little or no effect on the global mess. Nevertheless, I believe there is a role that we could play in the dissolution of it. What and how might we contribute to its dissolution? I think we can contribute by making public-policy and decision makers aware of ideas and concepts that would enable them to think more creatively and effectively about the mess the world is in. Here I discuss only a few systemic ideas and processes that I wish they understood. There are many others, but I would settle for their grasping this much.

The ideas and concepts I identify here are familiar to most systems thinkers even if they would express them differently. I include them to call their attention to aspects of systems thinking that I believe they should communicate to public-policy and decision makers.

Development Versus Growth

I hope we can help public-policy and decision makers realize that development and growth are not the same thing. Neither presupposes the other. Rubbish heaps grow but do not develop. Einstein continued to develop long after he stopped growing. Some nations grow larger without developing, and others develop without growing.

Growth is an increase in *size* or *number*. Development is an increase in *competence*, the ability to satisfy one's needs and desires and those of others. Growth is a matter of *earning*; development is a matter of *learning*. *Standard of living* is an index of national growth; *quality of life* is an index of its development. Development is not a matter of how much one has but how much one can do with whatever one has. This is why Robinson Crusoe is a better model of development than J. Pierpont Morgan.

The quality of life that an individual or group can achieve obviously depends on both their competence and their wealth. Of two societies with the same level of competence, the one with the most wealth can achieve the higher quality of life. But of two societies with the same resources, the one with the greater competence can achieve a higher quality of life.

Because development is a matter of learning, one cannot do it for another. The only kind of development possible is self-development. However, one can facilitate the development of another by encouraging and supporting their learning. Nations must stop acting as though they can solve other nations' problems. Nations, like individuals, learn less from the successes of others than from their own mistakes.

One never learns from doing things right because, obviously, one already knows how to do them. What one derives from doing something right is confirmation of what one already knows. This has value, but it is not learning. *One can only learn from mistakes*, by identifying and correcting them. But all through school and in most places of employment, we are taught that making mistakes is a bad thing. Therefore, we try to hide or deny those we make. To the extent we succeed, we preclude learning.

Furthermore, there are two types of mistakes: *errors of commission*, doing something we should not have done; and *errors of omission*, not doing something we should have done. Examination of the failures or crises that organizations and institutions have experienced reveals that errors of omission are the more serious.

For example, in the latter part of the last century, IBM got into serious trouble because it failed to pay attention to the development of small computers, and Kodak got into its current trouble for failing to focus on the development of digital photography until others had successfully staked a claim to it. Our public and private accounting systems record only the less important type of mistake, errors of commission. Therefore, for executives who want to maximize their job security in a public or private organization

that deprecates mistakes and ignores errors of omission, the best strategy is to do nothing or as little as possible. This is the root of the conservatism that permeates the world today.

This nation, I believe, has never had an administration as reluctant to acknowledge its errors as the one currently in office. Because of this, it has precluded the possibility of its learning.

Learning About Learning

We need to learn a great deal more about learning. Our schools at all levels are devoted more to teaching than to learning. For example, it is apparent to anyone who has taught others that the teacher learns more than the students do. Teaching is a much better way to learn than being taught. Schools are upside down. Students ought to be teaching and faculty members should be learning how to help others learn and how to motivate them to do so.

A student once stopped me in the hall and asked, "Professor, when did you teach your first class?" That was easy: I answered, "September of 1941." "Wow!" he said. "You have been teaching for a very long time." I agreed. Then he asked, "When was the last time you taught a course in a subject that existed when you were a student?" This question required some thought but finally I got it and answered, "September of 1951." He said, "Do mean to say that everything you have taught for about 50 years you had to learn without having it taught to you?" I said, "Yes." "Wow," he said again. "You must be a pretty good learner." I modestly agreed. He continued, "What a pity you are not that good a teacher."

He had it right: Faculty members know how to learn better than they know how to teach. Therefore, they should be acting as resources to students who are either engaged in teaching others, or learning on their own or with others cooperatively. One of the great gifts I received from West Churchman is that he let me go through graduate school teaching most of the courses I needed to take for graduation.

Democracy has to be learned. It cannot be imposed on others. It must be learned by experiencing it. It does not come to us naturally. All of us are brought up by adults who, even in permissive families, are authorities who control us or set limits within which we have freedom. In effect, we are raised in autocratic structures, however benevolent they may be. Therefore, in a sense autocracy is more natural than democracy.

I was once involved in a project in Mexico that taught me how democracy could be learned. A group of us from several Mexican universities and a government agency were able to make available to a very remote Indian village in the Sierra Madras Mountains a substantial sum

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of money the village could use for its development. It alone had to make the decisions as to how to use the money but it had to make these decisions democratically. The only power the team of which I was a part had was to veto any decisions that were not made democratically and that did not involve development. Town meetings were initiated in the square in the center of the village, and after a series of tries, the village members learned how to make decisions democratically. They also learned the difference between development and welfare.

How Do We Have to Change Ourselves?

"[M]an has been able to grow enthusiastic over his vision of . . . unconvincing enterprises. He has pit himself to work for the sake of an idea, seeking by magnificent exertions to arrive at the incredible. And in the end, he has arrived there. Beyond all doubt it is one of the vital sources of man's power, to be thus able to kindle

enthusiasm from the mere glimmer of something improbable, difficult, remote" (José Ortega y Gasset, *Mission of the University*, Norton, 1966).

Now, what might the systems community do about the deficiencies I have discussed? Clearly, we must learn how through communication to make public-policy and decision makers aware of these deficiencies and what to do about them. We are not doing so now. Most of our communication is addressed to each other, not to public-policy and decision makers. Our communication is based on our needs, not those of others. With the intent of changing this I have several proposals.

First, our principal professional organization, the International Federation for Systems Research, should publish a journal addressed to public-policy and decision makers who can affect the global mess. Through expository articles and case studies, the journal should help them come to understand systems thinking and its use in their work. It should be distributed to them at no cost. The federation should cover the cost, if necessary by voluntary contributions of its members.

The journal, possibly called *Systems Thinking in Public Affairs*, should be supplemented by at least one conference per year held at a site at which a major multigovernmental institution is located. Public-policy and decision makers should be invited mostly to discuss their problems and listen to unconventional systemic approaches to them.

In addition, those of us who think of ourselves as system thinkers should contribute to those publications that are read by those in public life whom we want to affect. We should also try to make presentations at conferences they attend. Our professional societies should make it their responsibility to facilitate such participation by informing us of relevant opportunities and, where possible, by arranging jointly sponsored meetings.

Finally, we should engage in assisting development efforts of less-developed countries, regions, commu-

nities, and neighborhoods. This does not mean imposing our solutions on them but assisting them in implementing their proposed solutions to their problems, even if they are wrong. They can develop more by making their own mistakes than by imitating our successes.

Systems thinking produces radical and potentially revolutionary visions of public institutions. Nothing short of such visions can transform the state of world affairs. I believe we have an obligation to the global society of which we are a part to make every possible effort to bring about a radical transformation of that society into one in which our children do not have to contend with the mess we have created and are exacerbating. ◘

NEXT STEPS

- Talk with others in your organization about whether your problem solving and change efforts tend to focus on "doing things right" or "doing the right thing." If the former, how does this hinder your chances for success?

- Explore examples of holistic and reductionistic thinking. In planning new initiatives, does your organization first look at the system as a whole and ensure that the project will not undermine other parts of the system? Or do most efforts seek to improve performance in a part of the system without regard for the impact on the rest of the organization?

- According to Ackoff, errors of omission are more serious than errors of commission. Can you and your colleagues identify errors of omission that have occurred in your area over the past year or two? What can you learn from analyzing the dynamics that led to the failure to act in these instances?

- The tools of systems thinking—such as behavior over time graphs, causal loop diagrams, and systems archetypes—can be useful in exploring each of the areas of inquiry outlined above. They can also help to ensure that your actions will have the intended outcomes. For an overview of these concepts, go to http://www.pegasuscom.com/lrnmore.html.

—Janice Molloy