VIEWPOINT

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WHY FEW ORGANIZATIONS ADOPT SYSTEMS THINKING

BY RUSSELL L. ACKOFF

I frequently talk to groups of managers on the nature of systems thinking and its radical implications to management. In doing so, I use several case studies involving prominent American corporations. At the end of the presentation, I am almost always asked, "If this way of thinking is as good as you say it is, why don't more organizations use it?"

It is easy to reply by saying that organizations naturally resist change. This of course is a tautology. I once asked a vice president of marketing why consumers used his product. He answered, "Because they like it." I then asked him how he knew this. He answered, "Because they use it." Our answer to the question about failure of organizations to adopt systems thinking is seldom any better than this.

There may be many reasons why any particular organization fails to adopt systems thinking, but I believe there are two that are the most important, one general and one specific. By a general reason, I mean one that is responsible for organizations failing to adopt any transforming idea, let alone systems thinking. By a specific reason, I mean one responsible for the failure to adopt systems thinking in particular.

First, consider the general explanation. All through school, from kindergarten all the way through university, mistakes are treated as bad things. We are downgraded for them. Furthermore, no effort is made to determine whether we have learned anything from them. The grade given, not learning from our mistakes, is a *fait accompli*.

On the completion of our schooling, we enter an employing organization, which also makes it clear that mistakes are a bad thing and that they will be held against us. Managers laugh when I tell them of an organization I once heard of that offers an annual prize for the best mistake made last year. That mistake is defined as the one from which they have learned most. When August Busch III was CEO of the Anheuser-Busch Companies, he once told his assembled vice presidents, "If you didn't make a serious mistake last year, you probably didn't do your job, because you didn't try anything new. There is nothing wrong in making a mistake, but if you ever make the same mistake twice, you probably won't be here the next year." He had it right: Mistakes will be forgiven if we learn from them.

We cannot learn from doing anything right. We already know how to do it. Of course, we may get confirmation of what we already know, and this has some value, but it is not learning. We can learn from mistakes if we identify and correct them. Therefore, organizations and individuals that never admit to a mistake never learn anything. Organizations and individuals that always transfer responsibility for their mistakes to others also avoid learning. One need look no further for an example than to the executive office of my government.

The General Reason

To understand why organizations do not use mistakes as opportunities for learning, other than a disposition inherited from educational institutions, we must recognize that there are two types of mistake: *errors of commission* and *errors of omission*. An *error of commission* occurs when an organization or individual does something that should not have been done. For example, when Kodak acquired Sterling Drugs, it made a very costly mistake. It had to be sold subsequently. Its sale involved a considerable write-off.

Robert F. Bruner, in his book, *Deals from Hell* (Wiley, 2005), cites a number of acquisitions that went sour in a big way. The Sony-Columbia merger in 1989 resulted in a $2.7 billion write-off. The acquisition of National Cash Register by AT&T cost AT&T $4.1 billion. His champion of errors of commission is the merger of AOL and Time Warner. It resulted in a $200 billion loss in stock-market value and a $54 billion write-down in the worth of the combination's assets.

Bruner points out that in most such cases the executives responsible for such losses made significant gains in their own compensation. They were able to disclaim responsibility for their mistakes.

An *error of omission* occurs when an individual or organization fails to do something it should have done. For example, when Kodak failed to acquire Xerox when it could have, or when Xerox failed to develop the small

TEAM TIP

In this article, management thought leader Russell Ackoff encourages organizations to record all significant decisions, including whether they decide to take a particular action or not to do so. By documenting the decision-making process in this way, teams can learn from both errors of commission and those of omission.

computer produced by its employees. Of the two types of error, errors of omission are usually the more important. The deterioration and failure of organizations are almost always due to something they did *not* do.

Not too long ago, IBM got into serious trouble because it ignored the reduction of the size of computers. Fortunately, it eventually corrected this error, but it came close to going out of business. Kodak is currently in a precarious position, because it did not press the development of digital photography. General Motors and Ford are in trouble because they have not innovated in ways that Toyota and Honda have.

Now for a key fact: Accounting systems in the Western world only take account of errors of commission, the less important of the two types of error. They take no account of errors of omission. Therefore, in an organization that frowns on mistakes and in which only errors of commission are identified, a manager only has to be concerned about doing something that should not have been done. Because errors of omission are not recorded, they often go unacknowledged. If acknowledged, accountability for them is seldom made explicit. In such a situation, a manager who wants to invoke as little disapproval as possible must try either to minimize errors of commission or transfer to others responsibility for those he or she makes.

The best way to do this is to do nothing, or as little as one can get away with. This is a major reason that organizations do not make radical changes.

A number of years ago when I was working on a project for a major automotive manufacturing company, the executive vice president asked me if I would give a two-day course on systems thinking to the company's top 200 managers and executives. I was delighted. He said he wanted to restrict classes to 20 so that there would be plenty of discussion. He had the following plan: four sessions of junior vice presidents, three of intermediate-level vice presidents, two of senior vice presidents, and finally one of the executive office. The sessions were to be conducted from the lower level up.

At the end of the first session to junior vice presidents, one said, "This stuff is great. I would love to use it, but you are talking to the wrong people. I can't introduce it without the approval of my boss. Are you going to get a chance to present it to him?" I told him I would in one of the later courses. He assured me he would hit his boss for approval as he came out of his session. In each of the first four sessions of junior vice presidents, the same issue was raised.

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In the first group on the second tier, with intermediate-level vice presidents, the same issue was raised. I was told they also wanted to introduce systems thinking but could not do so without their bosses' approval. Again, I told them their bosses would eventually be exposed to the same ideas. In each of the three sessions at this level, the same issue was raised.

In the two sessions involving senior vice presidents, the same issue was raised. They asked if I would have a chance to present the material to the CEO and his executive committee. I said I would. I could hardly wait to hear what the CEO would say.

At the end of the session that he attended, he said, "This stuff is great. I would love to use it. But I can't do it without the approval and support of my subordinates. Are you going to get a chance to present it to them?" This was a typical organization, one in which the principal operating principle was "Cover your ass." Application of this principle produced a management that tried to minimize its responsibility and accountability. The result was a paralyzed organization, one that almost never initiated change of any kind, let alone innovation. It made changes only when a competitor made it necessary for it to do so.

This deficiency in organizations can be eliminated by taking the following steps:

1. Record every decision of importance, whether to do something or not. The Decision Record should include (a) the expected effects of the decision and by when they are expected, (b) the assumptions on which the expectations are based, (c) the inputs to the decision (information, knowledge, and understanding), and (d) how the decision was made and by whom.

2. Monitor the decisions to detect any deviation of fact from expectations and assumptions. When a deviation is found, determine its cause and take corrective action.

3. The choice of a corrective action is itself a decision and should be treated in the same way as the original decision. A Decision Record should be prepared for it. In this way, one can learn how to correct mistakes; that is, learn how to learn more rapidly and effectively. Learning how to learn is probably the most important thing an organization or individual can learn.

4. The decision by an organization not to adopt systems thinking should be treated in this way. Making explicit the assumptions on which such a decision is based and monitoring them can lead to a reversal of the decision in time.

The Specific Reason

Very few managers have any knowledge or understanding of systems thinking, and for good reason. Very little of our literature and lectures are addressed to potential users. I very seldom come across an organizational decision maker who has had any previous exposure to systems thinking.

We are an introverted profession. We do most of our writing and speaking to each other. This is apparent on examination of the content of any of our journals or conferences. To be sure, some communication among ourselves is necessary, but it is not sufficient.

Until we communicate to our potential users in a language they can understand, they and we will not understand what we are talking about. If Einstein could do it with relativity theory, we should be able to do it with systems thinking (Albert Einstein and Leopold Infeld, *The Evolution of Physics,* Simon and Schuster, 1951). It is easy to hide the ambiguity and vagueness in our own thinking behind jargon, but almost impossible to do so when speaking or writing in ordinary language.

We have developed a vocabulary that equips our students with the ability to speak with authority about subjects they do not understand. Little wonder they do not become effective spokespersons to potential users.

The International Federation for Systems Research should publish a journal addressed to potential users. It should have managers on its editorial board. It should invite dialogue with potential users, either electronically or in print. In addition, it should occasionally hold conferences that provide a bridge between system thinkers and their potential users. These conferences should reveal what we are doing and can do that they should know about.

Furthermore, the articles published in our usual journals should be required to answer the "so what" question at the end of each submission. The answer to this question should be an explicit statement of how the author intends to affect the behavior or thinking of the reader. No article should be published without such an appendage.

Let's start to think outside the box into which we have painted ourselves!

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