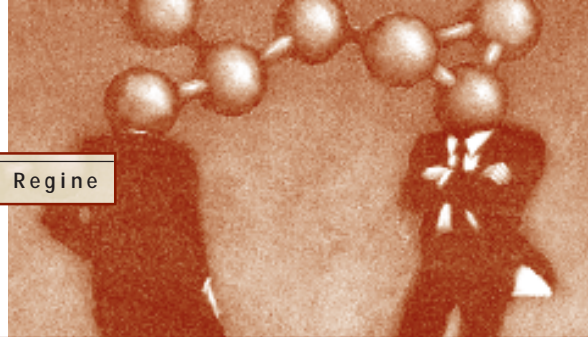# AN ORGANIC APPROACH TO MANAGEMENT

Roger Lewin   Birute Regine

About the Authors:

Roger Lewin is a prize-winning author of 17 science books, including the acclaimed *Complexity: Life at the Edge of Chaos*. Between 1990 and 1993, he was a visiting professor in biology at Wayne State University and an Associate at the Peabody Museum, Harvard University, from 1993 to 1998. He speaks frequently at national conferences on complexity science and business.

Birute Regine is a Harvard-educated developmental psychologist and therapist who specializes in the dynamics and development of relationships. In 1996 and 1997, she was a visiting scholar at the Center for Research on Women at Wellesley College, where she developed a narrative approach to organizational change. A prize-winning writer, she also speaks frequently on complexity science and business.

I was first exposed to complexity science while Research News Editor at *Science* magazine. Understanding unpredictable, complex system behaviors as the result of the self-organizing interaction of individual components—or agents—seemed a powerful explanation of the dynamics in nature. As an educator, my co-author also became intrigued with complexity science as a way of looking at unpredictable growth and development in human systems. We recognized a contemporary movement in viewing business through a complexity lens and set out to study how self-organizing principles relate to managing growth and change in a "human ecology"—the business world.

Our upcoming book, *The Soul at Work,* documents over two years of research and in-depth conversations with many companies, large and small, ranging from a chemical company to an advertising agency. As biologists would study the rainforest, we acted as ethnographers, observing human interaction and leadership styles onsite and gathering evidence to support our interpretation of business organizations as complex adaptive systems. We propose that any action or structure that enhances interaction among the agents (in this case, people) in the system will promote the emergence of greater creativity and adaptability.

Our findings span the realm of action and structure. In the action realm we saw that when authentic relationships were valued (at all levels) companies were able to respond to their environments, change, and innovate more effectively than had been possible previously.

In the structure realm, companies that promoted a nonlinear way of working enjoyed enhanced creativity and business success.

The Action Realm: Paradoxical Leadership

The leaders in tune with a complexity approach shared a common trait—tolerance for paradox. The fundamental paradox in this leadership style is leading by not leading. Since processes unfold in complex systems in unpredictable ways, leading organizational change cannot come about by simply adhering to a conventional command and control approach, which is essentially linear. To accept nonlinear outcomes, uncontrollable processes, and uncertainty demanded nothing less than a personal transformation of the leader. Transformation can be articulated in terms of an organic approach to the organization and as a different way of being a leader.

An Organic Approach: Work Is a Relationship

Although all the organizations we worked with underwent unique processes defined by their environments, their histories, and their objectives, they all shared similar underlying patterns in how their leaders facilitated change. The first thing these leaders had to learn was that managing an organization as a complex system meant letting go of control. As Tony Morgan, CEO of the Industrial Society, an English consulting organization of 300 people, said, "By nature I'm a command and control type person, very much so, but I was getting a feeling that command and control and linear thinking had a very limited life globally. So I approached the Society from a completely different

angle. I found that relationships are the most important thing for engaging nonlinear processes. If you don't have this, none of it will work. What happens is you become more aware of behaviors in relationships that lead to positive rather than negative outcomes.

"I can't conceive of myself as a leader without the burden of responsibility to create positive and powerful relationships with everyone I interface with. And I mean relationships, where you can speak to me openly all the time. And that's really difficult because you have to be interactive and keep working at it. Coming from a command and control existence, it was quite an adventure for me. If you don't think that I didn't wake up in the middle of the night and say 'this feels very uncontrolled,' you're greatly mistaken. This is why this job has been more demanding than any other. If you work within boxes, it's easy, because it's not about people."

In other words, when relationships become the means for guiding nonlinear processes, leaders had to see the limits of their control, which was not an easy task. Instead they focused on the power of the interconnected world of relationships and the feedback loops they foster and feed. This makes sense from a complexity perspective because it is through interactions—that is, relationships—that something novel emerges. How people interact, whether they have a mutual effect on each other, influences what emerges, negatively and positively. By focusing on relationships, these leaders began to see their organizations more organically—as interconnected human webs, living organisms that unfold and adapt. On this new ground, the workplace

Leaders today have the challenge of fostering an environment that encourages creativity and self-organization while maintaining a sense of efficiency and order. Progressive managers are beginning to break old habits of control and beginning to let more nonlinear interaction occur. Employees who are given the freedom to network and communicate independent of organizational structure develop more novel ideas.

article abstract

Innovation
in Action

had become an experiment in progress.

To engage in this experiment, the leaders had to change existing structures—ones that were based on a mechanical model and emphasized stability and order. They described pushing their organizations toward chaos (some complexity theorists posit that the "edge of chaos," a state between rigid order and mayhem, is the most productive state of a living system) by challenging the existing relationships, both emotionally and functionally. When Morgan took over the leadership of the Industrial Society, it was in financial crisis and was heading for bankruptcy. This is why he felt a radically different style of management was needed, one that was based in his knowledge of complexity science. "From the start," Morgan told us, "I said we're going to live in chaos. I started this process by speaking very directly in ways that were totally unexpected to our people." This allowed everyone to speak freely and honestly. Eventually, this strengthened relationships and the organization itself. Within three years the society had gone from fiscal deficit to healthy surplus.

At Monsanto, CEO Robert Shapiro led change in his organization of 22,000 people by challenging the functional relationships. "The challenge was how to create radical change in a very proud, successful institution. I decided that the only way to make that happen in a successful organization was to make it unsuccessful. Not financially unsuccessful, but simply making the old ways of working no longer possible. I wanted to break the organization down internally, break old habits and old ways of doing things by giving

people challenges that they couldn't handle. The problem with making changes in a big complicated organization is that all the parts fit together. They may fit in a dysfunctional way, but they do fit. So you can't take any single part out, redesign it, and plug it back into the system. You have to redesign all the parts at once. You have to get everyone working on it.

"The way we pushed the organization into this grand experiment was by overloading it, by demanding much more of the system than its linkages as they were structured, which was very rigid and vertical, could handle. We pushed the organization into chaos as a way of 'finding' new, more adaptable, creative ways of operating in the new environment. I just felt intuitively it was the way to go.

"I did know it would be hard. I used to get people lining up outside my door, saying, 'Bob, you've go to tell me; I've got five different things I have to do here. What's your priority?' I knew that the minute I would prioritize it, we'd be back into the old model of the boss having the answers and telling people what to do. The astonishing thing about the whole process was how fast it went—just a couple of years. Very soon people were self-organizing, posting proposals for a project they cared about, inviting others to join. The reason this works is because it's what people really want." The impetus for change was to find a way of transforming what traditionally had been a hybrid company—which had chemical, agricultural, biotechnology, and pharmaceutical operations—into a life

sciences company, whose business environment demanded more agility than was previously necessary.

Like Shapiro, all the leaders in our study were not invested in establishing themselves as the ultimate authority, but rather they worked to extricate themselves instead of fostering dependence on their expertise. Rather than directing people, they cultivated conditions where people could self-organize and restructure around the existing issues, which meant being a different kind of leader.

A Different Way of Being a Leader

As these anecdotes suggest, managing from a complex adaptive systems point of view requires some unconventional ways of being—ways that are perhaps not stressed in traditional business training. Three behaviors, ways of being, were common to these leaders. They allowed new processes to emerge rather than be imposed; they were accessible to people by being authentic and caring; they were attuned to their organizations, both at the macro level of the whole system and at the micro level of interaction among people.

Allowing

Paradoxical leaders allow experimentation, mistakes, contradictions, uncertainty, and paradox—so the organization can evolve. At DuPont's Belle plant in West Virginia, plant manager Dick Knowles talked about this aspect of paradoxical leadership in terms of a bowl. "I developed this image of a bowl, a safe container, that gives people freedom to experiment, to create improve-

ments. Paradoxically, the bowl gives you order and freedom at the same time. It's the leader's job to create the bowl through our conversations about our vision, our mission, our principles, our standards, our expectations. The leader creates conditions that make it okay for the people to grow, and an enormous energy gets released. People discover that they can make a difference; meaning begins to flow; you get a discretionary energy flow. That's the difference in energy between doing just what you have to keep from being fired, and being fired up and doing the max. Most people know what to do if they have a good sense of the bowl."

When Knowles took over as plant manager, the facility had a terrible safety record, emissions were high, and productivity was low. The head office was planning to close down the plant if there was no improvement. Knowles's new management approach achieved results over three years: Injury rates were down by 95 percent; environmental emissions were reduced by more than 87 percent; up-time of the plant increased from an average of 65 percent to 90 to 95 percent; productivity increased by 45 percent; and earnings per employee tripled.

The paradox of allowing is direction without directives, freedom with guidance.

Accessible: Authenticity and Care

In order to create rich connections within a system, the leaders we worked with placed value on authenticity and care, which made them accessible as human beings and set a standard of behavior for the organization.

Authenticity makes for effective connection because you know where people really stand. "Trying to look good and be something else for someone is an efficiency as well as a mental health issue; it's tiring and a waste of time and energy when you try to be something you're not," Shapiro told us. All the leaders recognized the power of their example and strove to embody these behaviors. As Morgan said, "It's about being observant of yourself when you're being inauthentic." All these leaders cared about their people and focused on the task of making work meaningful and the workplace a fulfilling place to be. As Shapiro said, "We're not trying to extort more work out of people. We're giving them an opportunity to grow and do things they care about. If you do enough work that is worth caring about, it taps into a whole different level of involvement, commitment, creativity, and achievement."

And it starts with the leader in a very personal way. Hatim Tyabji, CEO of VeriFone, a global high-tech company of 3,000 people, put it this way. "As a leader, you've got to care. It's got to come from within you. Some say that's common sense. The issue is practicing it. The most profound truths in the world are the simplest. Except they don't get practiced."

The paradox of accessibility is leaders are mutual but not equal—mutual in respect and ability to affect and be affected by others, and also not equal in power.

Attuned

The leaders we studied relied heavily on their intuition and ability to listen as a way of being attuned to their organization. To be attuned at a micro level, Morgan said, "The best thing you can do is shut up and listen." Shapiro described staying in tune with the big picture at Monsanto this way: "It's at a very abstract systems level that it seems to me I have to operate. I have to influence the systems to keep them open. I have to identify places where there are constrictions or blindnesses, where there are denials, and try to help that out. My specialization is generalization."

Also, as Shapiro points out, attunement to the organization is an evolving phenomenon. "The first year I was CEO, I really thought I ran the place. I was trying to change something, and I felt I was there pretty much by myself, with a few people who understood what we needed to do. We were pushing against this enormous system. By midway into my second year, I realized I wasn't running it, that we had the right people, at least in a lot of places, and that they were doing it. I understood what they were doing, where we were going, what we were trying to accomplish and I liked it. By my third year, a lot of the time I didn't even understand it. And it felt wonderful. As is perfectly appropriate, it felt as if the place was outgrowing me."

The paradox of being attuned is knowing and not knowing—knowing intuitively while not knowing everything.

The Structural Realm: Nonlinear Organization

St. Luke's advertising agency, in London, England, was formed in 1995 by thirty-five people who had constituted the UK office of the New York-based giant Chiat/Day. They didn't want to be swallowed up in an impending merger with another industry giant, TBWA. The breakaway move was initiated by Andy Law, head of Chiat/Day's UK office, and now chairman of St. Luke's. David Abraham, co-founder and chief operating officer of St. Luke's, described their motivation as follows: "We wanted to unlock the human potential trapped in conventional business environments in order to enhance creativity and competitiveness."

Within three years the agency's staff had more than tripled in size, and in January 1998 it was voted The Agency of the Year, a much-coveted accolade in the business, by *Campaign*, the industry's trade magazine. The agency was also strongly successful in traditional financial bottom-line terms and was turning away multimillion-dollar accounts because its people were fully stretched.

Three key elements went into the establishment of St. Luke's as a nontraditional business organization. First, it found a real way to include all individuals in the firm as a whole network. From the beginning the company's equity was distributed equally among all staff, from chairman to housekeeper. "That way you get rid of the ego and greed problem that is so rampant in this industry," says Law. "It also generates deep, genuine commitment to the organization."

Second, no one has a personal office. Everyone has a place they can go to each day, of course, but no one has a desk that is exclusively his or her own. When they come to work in the morning, people pick up a cell phone and go to wherever is most appropriate place for the day's activities, and this might include what is known as the chill-out space, which is reminiscent of a cafeteria, games room, and library combined. In this way, they created an environment that fostered recombination. In evolution, recombination is the mingling of genes to create new offspring. At St. Luke's, the constant movement and informal encounters resulted in greater creativity.

Third, the traditionally linear mode of creating advertisements was transformed into a nonlinear process. Largely, this consisted of finding direction without a predetermined path.

Some characteristics of the latter two elements had been present at Chiat/Day, but not to the extent that Law and Abraham developed them at St. Luke's. Law and Abraham were not guided by complexity science principles when they sought a new kind of design for the agency: they didn't know about them at the time. Rather, Law and Abraham's intuition was that rich and fluid interaction in a context of little hierarchy would unleash greater creativity in their people as individuals and in the organization as a whole. This is very much what complexity science posits when considering organizations as complex adaptive systems.

Creating an organization that encourages flow of ideas and optimal networking among employees means breaking down old hierarchical structures. The laws of complexity science suggest that allowing for more "random" encounters among people enhances the creative process. Workplace structures are an important opportunity for increasing the chance encounters among employees and clients alike.

article abstract

Innovation in Action

Although the experiment ultimately was successful, it took about 14 months before St. Luke's people collectively figured out how to operate. And the learning period was extremely difficult, for everyone. In effect, the company was in the chaotic throes of breaking an old way of working and seeking a new one, a novel way that no one had a clue what it would look like, still less whether it would succeed. In the ensuing uncertainty, people were grumpy and bewildered, and there was a lot of backbiting. "I remember that time as being full of extreme agony, frustration, and despair, for everyone," recalled Law. "People were pleading, 'Where are we going?' 'What are we doing?' 'Why can't we have our own desks?' I said, 'I just know that having offices is wrong. This is an experiment, and I don't know if it will succeed.'" Law deliberately stepped out of the organization, in the sense of not trying to make it go in one way or another, just seeing what might unfold.

Law's conviction about the benefits of disposing of personal desks was that it would encourage more casual interactions among people, breaking a static office into a free-flowing environment in which serendipitous encounters would be centers of unexpected creativity. "I sat opposite someone for two years in my previous agency," explained Sue McGraw, an account manager. "I got to know him very well, and we became good friends. But I now know that it was at the expense of interacting with a lot of other people in the agency." Mark Lewis, an account director, insists that the benefits are huge. "It's fundamental to the process of creativity here," he said. "It may be hard and irritat-

ing in some ways, but it keeps us in contact with one another."

The structural focus of St. Luke's is what are called Brand Rooms, which are the only physical offices in the place. A room is set aside for each client and then decorated according to the pitch that is being developed. For instance, the Brand Room for Boot's the Chemist looks like a teenage girl's bedroom, because the pitch is for a line of cosmetics for girls. All meetings relating to a particular client take place in the appropriate Brand Room, and everyone involved in the account—including the client—gathers there together. The aim is to create an environment that promotes a nonlinear development of the pitch.

The traditional way of operating in the industry is rather linear. The account director assesses the client's needs and then communicates these to the creative director. The creative director in turn communicates these needs to the creative team, who then works up a possible pitch. The team gives the account manager the proposed pitch, and he/she then makes a presentation to the client. Lewis explained that "Usually, the client will say, 'That's pretty good, but it's not quite what we had in mind.' And the whole linear progression begins again. It's a slow, iterative process, full of air locks, people aggressively defending their territories."

At St. Luke's the client is involved throughout the whole process, so there are never any surprises, never any "it's not quite what we had in mind," because the client is part of the process of creativity. One consequence of

Linear work processes tend to encourage competition and egotism. This mode of working inhibits employees from having a sense of teamwork. Management that is driven by the principles of complexity science, however, leads to a work process that focuses on networks of relationships and sharing of ideas. These relationships can produce a more adaptive organization that is better prepared for change.

<u>article abstract</u>

Innovation
in Action

the client's constant involvement, Lewis told us, is that the client is usually much more willing to go with what he describes as "more dangerous work, more cutting-edge work," because the client has seen the ideas unfold, has been part of the process of unfolding, and is not simply confronted with a wild idea out of the blue after months of silence.

As important as the client's involvement, however, is that the brand room provides a mutual space for all the people involved. Each brings his or her own expertise, but not a territory to be defensive over. "Everyone sits around—the account handlers, planners, creative people—and those meetings go crazy," Lewis said. "They're real brainstorming sessions and we get to solutions really quick, because we're not pushing against each other; everyone comes together and it explodes. The planning is happening, the creative work is happening, and then, instead of saying, 'Okay, we've got the brief, let's think about strategy,' we start writing ads immediately and we start working out whether the strategy is right or not. Everything just goes crazy really, really early on."

McGraw compared the experience with that in her former agency. "You spend less time talking to a thousand different people about the same thing," she explained. "The team process is important because, rather than everyone having their own little jobs that they do, and then write a piece of paper about it, and pass it on to the next person, everyone sits together in the same room and talks. Differences get resolved on the spot, rather than passing a piece of paper to some-

one and waiting three days to get a response. Here, that takes half an hour." The whole nonlinear process is much more dynamic and less controlled than the traditional mode of working, because a greater diversity of people is interacting at any one time.

The linear progression mode of working encourages ego, we were told, because each person feels a need to defend his or her contribution, which is done in isolation from everyone else's. In the nonlinear team process, where all members can contribute ideas in any sector of the process, not just in their area of expertise, ego is much less of a problem because it is a collective, emergent process. This is not to say that there are no big egos at St. Luke's. There are, of course. But the nonlinear process serves to minimize the "I" and enhance the "we."

Management guided by principles of complexity science leads to new way of working, in which relationships become the true bottom line of business. Human-relations management is not new, of course, and many of the individual behaviors we saw collectively in these companies have been posited in other management theories. What is new is that complexity science provides insight into why such practices are usually successful: a management practice that focuses on a network of relationships is not effective simply because it is "nice"; rather, it is a way of engaging the dynamics of a complex adaptive system. It is effective because enhancing interactions leads to the emergence of a creative and adaptable organization.