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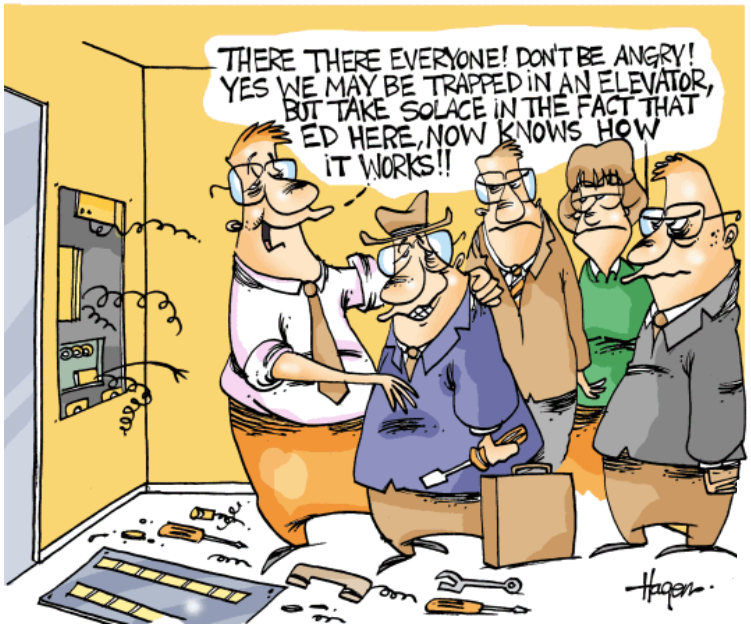

Leadership Through Learning Part 2B: Systems Thinking and Human Dynamics

by Marilyn Herasymowych and Henry Senko

"A good systems thinker, particularly in an organizational setting, is someone who can see four levels operating simultaneously: events, patterns of behaviour, systems, and mental models."
— Peter Senge et al., **The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization** (1994)

Our approach to systems thinking focuses on systems in which problems and opportunities involve *human relationships*. Human systems are not as narrow as you might think. In fact, every system within an organization has a human dynamic operating within it. That is because humans not only create the system, but also interact with the system in some way. For example, a technical system, such as a computer network, includes the following aspects:

- The computer
- The software
- The network
- The systems to which the computer is attached (e.g., telephone system, electrical system)
- The people who use the computer network
- The way in which people interact with each other while using the network
- The messages that are sent on the network

When you are dealing with human dynamics, you are dealing with:

- People, their conversations, the interpretations of those conversations, the work that they do, and how work gets done, which comprise some of the parts of the system
- The ways in which people interact and influence each other and other aspects of the system, which comprise the interrelationships among the parts
- The system that is created as a result

To understand how a linear approach is used when a systemic approach would be more beneficial, consider a situation in which a team has communication problems, both among team members, and with others outside the team. Team members usually make a number of decisions to deal with these communication problems. However, more often than not, these decisions become *fixes that fail*, because they are made in isolation, with little or no understanding of the larger system in which the team is operating.

For example, let us consider a team that had been using one 15-minute meeting each morning as a way to share information. A few months ago, the team decided that having a morning meeting every day was a waste of time, so they started having these meetings once a week. A month later, the team stopped having the morning meetings altogether, and started sending all communication by e-mail. What happened to this team as a result of cancelling the morning meetings? Was this a *fix that worked* or a *fix that failed*? Let us look more closely at what happened. The team made two separate decisions: first, to decrease the frequency of the meetings; second, to cancel the morning meetings and replace them with e-mail communication. While

the team was making each decision, team members did not examine the potential side effects of either of these decisions on the team and its members. Team members acted as if they understood what would happen, when, in fact, they were seeing only one part of the larger system.

Making the situation even more difficult was the fact that one major side effect did not show up right away. It showed up after a *time delay* of a few weeks. By the end of the first month, after the morning meetings had been cancelled, team members were becoming quite irritated with each other. They started accusing each other of hoarding information, especially information on tasks that had a direct impact on an individual team member's work. Team members were quite frustrated with each other, but could not pin down what had caused this to happen. All they knew was that they were having a problem that was affecting their ability to perform effectively.

Because the side effect did not show up right away, it was hard for the team members to link the side effect to the decisions that they had made about cancelling the meetings. This is precisely why systems thinking works — it helps people to consider as many aspects of the system as they can. By examining these aspects, people have a much greater chance of solving their complex problems.

If the team had used systems thinking to analyze their decisions about the morning meetings, team members would have analyzed the possible effect of each decision. They would have tested each decision by asking "What would happen if …?" Once they took action on the decision, they would have evaluated its effects on the entire system. Using systems thinking, team members would have understood that the problems they were having with each other stemmed from the decisions that led to cancelling the morning meetings. What team members did not realize was that the morning meeting was a communication structure that allowed them to share information face-to-face. The e-mails should have worked, but did not — because most of the team members disliked this form of communication. They preferred face-to-face communication, which unwittingly allowed them to experience more of the system operating.

Face-to-face communication works for most people, because we, as humans, are storytellers. We tell stories about what excites us, what frustrates us, and what confuses us. Unfortunately, our stories are only partially accurate. They are filled with our perceptions of what the situation is, and our fantasies about what the situation should be. These perceptions and fantasies colour our views of the situation, often adding to our confusion. All we can know is what we interpret from the stories that we tell, the stories that we live, and the stories yet to be told.

Because the system is so complex, we can only hypothesize about what the system is telling us. When we tell stories about our experience, these stories help us to make sense of our experience. Often, our stories are not that useful in helping us to really understand the system in a more holistic sense. The reason is that the most that we can see of a system is our own part in it, and even that is obscured by our perceptions of what has occurred. When we use patterns to examine the stories, we may be able to see a larger part of the system, and hypothesize about what might have created that system. This is a key element of the MHA approach to systems thinking. Those who study and practice systems thinking call these patterns *systems archetypes* — a way of using simple, but substantial, systems patterns to describe how a complex system may be operating. We have used this approach to develop a new approach to systems thinking that we call *systemic archetypal mapping* (this is explained in the next few newsletters).

"Archetypes are accessible tools with which managers can quickly construct credible and consistent hypotheses about the governing forces of their systems. Archetypes are also a natural vehicle for clarifying and testing mental models about those systems. They are powerful tools for coping with the astonishing number of details that frequently overwhelm beginning systems thinkers."
— Peter Senge et al., **The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization** (1994)

MHA Institute Inc.
Unit 248, Suite 205
259 Midpark Way SE
Calgary, Alberta T2X 1M2 Canada

Phone: (403) 257-4597
Fax: (403) 257-4649
E-mail: info@mhainstitute.ca
Web: www.mhainstitute.ca