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Mentoring Human Action

Season's Greetings from MHA Institute!

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We're trying to map our system, but I'm afraid you're in uncharted territory Frank.

Leadership Through Learning Part 2 I: Does Systems Thinking Really Work?

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"In [systems thinking], people learn to better understand interdependency and change and thereby are able to deal more effectively with forces that shape the consequences of their actions."
— Peter Senge et al., **Schools that Learn: A Fifth Discipline Resource** (2000)

A systems thinking approach is often used to understand and deal effectively with situations that:

- Are complex and uncertain
- Exhibit a repeating pattern of undesired behaviours that either stay the same or get worse over time
- Create negative side effects in other situations

For example, in the fall of 2001, an elementary school in a rural town in Southern Alberta was facing an uncertain future. The school was slated for closure due to declining enrolment. The ramifications of a school closure in a small town can be devastating to its population. In this case, the school was the last public facility to be closed, and the community and teachers in the school wanted to do something to save the school. A group of parents and teachers, led by the principal of the school, used systems thinking to analyze their situation. The group identified three key negative archetypes that described their situation, and one positive archetype that would support them in taking action:

- **Limits to Success:** Examples of limits included low enrolment and proximity to a major centre that drew their students to other schools in the area.
- **Success to the Successful:** The school board allocated more resources to viable schools and fewer resources to schools slated for closure.
- **Attractiveness Principle:** The teachers were spread too thin, trying to please everyone by offering as many programs and activities as possible.
- **Cooperative Partners:** The teachers and parents were used to working together to support the school. The community was close-knit and supportive.

As a result of the analysis, the group decided to focus on creating two positive archetypes:

- **Strut Your Stuff:** The group decided that the school needed to become unique in its focus as a school so that it could differentiate itself from other schools in the area. As a result, the school became a family school with programming and activities centered on the family and family values.
- **Be Your Best:** The teachers and parents needed to stop trying to do everything. This meant evaluating all of the current activities and programs, and aligning them with the family school focus.

Today, the school is still open, and growing in size. Due to the school's unexpected growth, the group realized that actions to save the school might create **Accidental Adversaries**. This might happen because the school would draw students away from other schools in the area. To mitigate this possible side effect, the principal of the school met frequently with the principals of the other schools in an attempt to create the positive archetype **Cooperative Partners**.

Systems thinking can also be used to analyze what might happen when a decision has been made, and cannot be reversed. The previous **InfoMine** article detailed one example of this (see **InfoMine** Vol. 11, No. 5). Another example of this occurred with an engineering team in an oil and gas company. This team specialized in making sure that all vessels, facilities, and pipelines were protected from corrosion. The team's mandate was to support activities in the field. Because the team was understaffed and operating beyond its capacity (**Growth and Underinvestment**), a decision was made to narrow the scope of the team. The team struggled with this decision because they believed it was a **Fix that would Fail**, and that it would create a significant **Limit to Success**. To mitigate these possible side effects, the team analyzed the situation, and decided to focus on their strength in building **Cooperative Partners** in the field. As a result, they were able to

develop cooperative plans and actions to deal with difficulties and problems as they arose.

This specific approach to systems thinking requires people to identify possible negative and positive archetypes operating in a situation, and to map their interdependencies to each other. In every case, this approach to systems thinking works well because it creates the conditions in which people can speak honestly about what is going on without feeling as though they are blaming others. The archetypes, and resulting systemic archetypal maps, act as devices to assist people to communicate, to trust, and to work collaboratively toward possible actions. Although people initially use this approach to solve a problem or analyze a situation, they discover that the process inevitably produces trust, collaboration, and effective communication. These are the emergent properties of using this approach to systems thinking.

For example, a cross-functional team was formed to analyze a reporting process in a manufacturing company. Half of the members were from head office, and the other half were from the regional offices. The team's attempts to develop recommendations for actions had been unsuccessful because of a strong *We-They* dynamic between the head office and the regional offices (i.e., **Accidental Adversaries**). The people from the regional offices did not trust the head office staff to listen to them, and the head office staff believed that regional office staff would sabotage any attempts to fix the problems (i.e., **Escalation**). To deal with this difficult situation, the team met to do systems thinking. One of the first steps in this approach to systems thinking is to have team members tell their stories about the situation.

Because this situation seemed emotionally charged, the team used the system archetypes as starting points. As team members heard each archetype, they would cite examples of how that archetype was manifesting itself in the situation. During this activity, team members surprised each other with their examples. Typical comments included: "I see it the same way," or "We have a different experience with this in the regional office," or "I didn't know you were struggling with that." Within a short time, the team had forgotten about their animosity and distrust of each other. Instead, team members suddenly found themselves fully engaged in collectively mapping the archetypes, and finding possible solution pathways.

This approach to systems thinking creates an environment in which people can easily trust each other, respect differences and diversity, communicate with honesty, collaborate successfully, and be accountable to each other. This is because:

- Everyone's perspective is critical to understanding the situation and the system. In many cases, this is the first time that people have felt that what they have to say is important to others. People often say: "I thought I was the only one concerned about this issue. Now I know that I am not alone."
- Individual perspectives are connected to everyone else's perspectives, resulting in an archetypal map that clearly defines the situation. Often, this is the first time people have seen the situation with a clarity that creates both understanding and meaning. This approach to systems thinking creates a *shared vision* of what is, and what can be.
- This approach to systems thinking produces actions that are doable, and that produce measurable and sustainable results. Even more interesting is that, collectively, team members agree with the collective actions, and are willing to implement these actions. In many cases, team members cannot wait to start taking action because they are so excited about what will occur as a result.
- Team members feel a collective ownership of what they have achieved. Even more important is the fact that they want to share their collective understanding with others, and to get others on board. Team members often want others to experience what they have experienced because they have found it to be such a rich and rewarding experience. A surprising emergent property is an increase in loyalty to each other, to the team, and to the organization.

"Because system dynamics illustrates the interdependencies within the current system, there is never a single right answer to any question. Instead, the discipline [of systems thinking] reveals a variety of potential actions you may take: some high-leverage and some low-leverage. Each of these actions will produce some desired results and (almost certainly) some unintended consequences somewhere else in the system. The art of systems thinking includes learning to recognize the ramifications and trade-offs of the action you choose."
— Peter Senge et al., **The Fifth Discipline Fieldbook** (1994)

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