



### Leadership Through Learning Part 2A: Systems Thinking as a Discipline

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“Herein lies the strongest reason to look for tools based on important new theories: only such tools have the *power to change how we think*. Most tools introduced into management to solve problems, however innovative they may be, are based on conventional ways of thinking. After all, without an underlying theory, how could they be otherwise? Such tools may be useful, but they will not be transformative. To paraphrase Albert Einstein, our present problems cannot be solved at the level of thinking at which they were created.”

— Peter Senge et al., **The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization** (1994)

In 1990, Peter Senge, a researcher from MIT, wrote a book called **The Fifth Discipline: The Art and Practice of a Learning Organization**. In his book, Senge articulated five disciplines that a learning organization practices (shown below). One of the five disciplines is *systems thinking*, a specific form of thinking that is based in theory, and supported with depth of research that has shown systems thinking to produce sustainable change in organizations. Senge and his colleagues also developed several approaches to systems thinking that are detailed in all of his books on the subject (e.g., casual loop diagramming, stock-flow diagrams, systems archetypes).

However, we at MHA Institute Inc. have found these methods cumbersome, difficult, and time-consuming for most people to learn. As a result, we have developed a unique approach to systems

thinking that makes it easier to learn and to use in the workplace.

In the next few newsletters, we will introduce our approach to systems thinking. Although we are not able to give you the details of our approach in only a few newsletters, we can give you a taste of its power to effect change. We have written a Guide, **Navigating Through Complexity: Systems Thinking Guide**, which explains our approach in detail, and shows you how to use systems thinking in the workplace. If you want more information on this Guide, visit our website at [www.mhainstitute.ca](http://www.mhainstitute.ca).

To better understand systems thinking, and our approach to systems thinking, we start by listing and defining Senge’s five disciplines. Notice that the fifth discipline is *systems thinking*. Senge believes that the most important discipline of the five is systems thinking, which is why he called his first book **The Fifth Discipline**. Senge believes that systems thinking is important because it underlies the other four disciplines. Also, the other four disciplines are integrated in the idea and use of systems thinking. The five disciplines are:

#### 1. Personal Mastery

Individuals consistently realize the results that matter most deeply to them, and are committed to learning from their experiences. They do this in relationship to others with whom they work (e.g., team, customers). In our approach to systems thinking, you select problems and opportunities that

matter to you. You tell your story about the problem or opportunity, and select actions that you believe you can accomplish. You become accountable to yourself and to the team for fulfilling these actions.

## 2. Mental Models

Individuals and teams question the ingrained assumptions that lead to their actions. The disciplines of systems thinking and mental models are linked. You cannot do one without considering the other. Every aspect of systems thinking in our approach asks you to understand both the system *and* the mental models that are creating the system. The surprise that you will encounter each time that you use systems thinking is a direct result of becoming aware of your mental models, and how they might be limiting your options.

## 3. Shared Vision

Individuals see how their personal vision fits into the team and organizational vision. They recognize how they have created their current reality; therefore, they see how they can create the future they desire. When our approach is used with a team, the result is a team that shares an understanding of the current system, and works together to develop a shared vision of the desired future system.

## 4. Team Learning

Individuals in a team suspend their assumptions, and enter into systems thinking, interactive dialogue, and learning as a team. When you do systems thinking as a team, team members

naturally learn together. Learning together is key to creating a high-performing team. When done with a team, our approach creates the conditions for team members to learn together at the speed of change — ultimately creating a high-performing team.

## 5. Systems Thinking

Individuals in a group understand the interconnectedness of all things, and the impact of decisions and actions in the long term. In their daily work, people face more and more problems that seem almost too difficult to solve, and opportunities that seem too impossible to consider. Senge believes that systems thinking is an effective approach for dealing with these problems and opportunities — especially challenging and repetitive problems — problems for which there seem to be no solutions. Our approach to systems thinking is based on using one of Senge's approaches to systems thinking called systems archetypes. We believe that Senge and his colleagues have scratched only the surface of what this method can accomplish in enhancing the skill of systems thinking. As a result, we have spent the last six years developing systems archetypes into an enhanced and practical method that takes into account the complexity of the situations that individuals and teams face daily.

To understand how systems thinking works, it is helpful to define a *system*. A *system* is comprised of three elements:

- The parts of the system
- The interrelationships among the parts
- The entire system that is produced when the system is operating

Often, people within organizations solve problems without understanding *the problem in the context of the larger system*. When this happens, the solution to the problem is seldom sustainable in the long term, and can even create other problems. The reason that the solution fails is not because people do not know what to do. By itself, the solution is probably a workable one. However, both the solution and the problem it is designed to solve are part of a larger system. Solutions often fail because people do not take the entire system into consideration. Systems thinking is based on an understanding of systems and the way in which they operate. This includes understanding the parts of the system, how these parts interrelate, and the system that is produced by the interrelationships of the parts.

“Once problems have emerged, once activities take on repetitive features, systems thinking is a very powerful method. Furthermore, systems thinking provides a powerful way of taking account of casual connections that are distant in time and space ... [providing] insight into the unintended and unexpected consequences of human action.”  
— Ralph D. Stacey, Douglas Griffin, and Patricia Shaw, **Complexity and Management: Fad or Radical Challenge to Systems Thinking?** (2000, 2002)

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