

WHAT IS SYSTEMS THINKING?

Systems Thinking offers a powerful new perspective, a language, and a set of tools that you can use to address the most stubborn problems in your everyday life and work. Systems Thinking is a way of understanding reality that emphasises the relationships among a system's parts, rather than the parts themselves. Systems Thinking has a practical value that rests on a solid theoretical foundation.

WHY IS SYSTEMS THINKING IMPORTANT? Why is Systems Thinking valuable? Because it can help you design effective, enduring solutions to problems. In its simplest sense, Systems Thinking gives you a more accurate picture of reality, so that you can work with a system's natural forces in order to achieve the results you want. It also encourages thinking about problems and solutions with an eye toward the long view – for example, how might a particular solution you are considering play out over the long run? And what unintended consequences might it have? Finally, Systems Thinking is founded on some basic, universal principles that you will begin to detect in all arenas of life once you learn to recognise them.

SYSTEMS THINKING AS A PERSPECTIVE:

EVENTS, PATTERNS, OR SYSTEM? Systems Thinking is a perspective because it helps us see the events and patterns in our lives in a new light – and respond to them in higher leverage ways. For example, suppose there is an accident at work. This is an event. If you respond to it simply by reporting the accident and dealing with it, you're reacting. (That is, you have done nothing to prevent further accidents.) If you respond by dealing with the accident and studying where accidents tend to occur in your business, you'd be paying attention to patterns. For example, you might notice that certain departments seem to suffer more accidents than others. If you provide safety equipment in those areas, you're adapting. (You still haven't done anything to prevent new accidents.) Now suppose you look for the systems – such as ways of working, level of safety training – that influence the patterns of accidents. If you build provide greater training, instigate rules regarding use of equipment and protective clothing, you're creating change. And, you're doing something to prevent accidents!

SYSTEMS THINKING AS A LANGUAGE As a language, Systems Thinking has unique qualities that help you communicate with others about the many systems around and within us:

- ▶ It emphasises wholes rather than parts, and stresses the role of interconnections – including the role we each play in the systems at work in our lives.
- ▶ It emphasises circular feedback (for example, A leads to B, which leads to C, which leads back to A) rather than linear cause and effect (A leads to B, which leads to C, which leads to D, . . . and so on).
- ▶ It contains special terminology that describes system behaviour, such as reinforcing process (a feedback flow that generates exponential growth or collapse) and balancing process (a feedback flow that controls change and helps a system maintain stability).

SYSTEMS THINKING AS A SET OF TECHNIQUES

The field of Systems Thinking has generated a broad array of techniques that allow you to:

1. Graphically depict your understanding of a particular system's structure and behaviour.
2. Communicate with others about your understanding.
3. Design high-leverage interventions for problematic system behaviour.

These tools include causal loops, 'behaviour over time graph's, and systems archetypes – all of which let you depict your understanding of a system – to computer simulation models and management 'flight simulators' which help you to test the potential impact of your interventions.

Whether you consider Systems Thinking mostly a new perspective, a language, or a set of tools, it has a power and a potential that, once you've been introduced, are hard to resist.