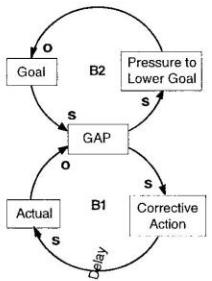
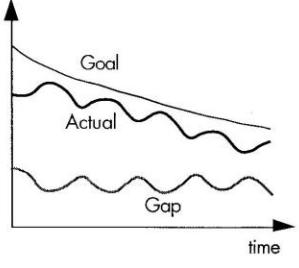
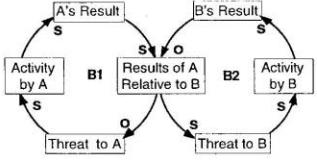
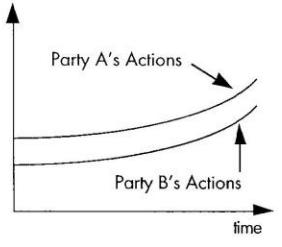
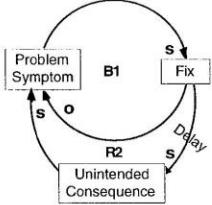
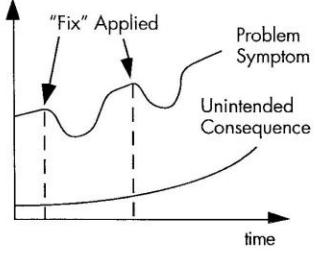
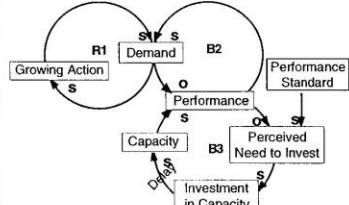
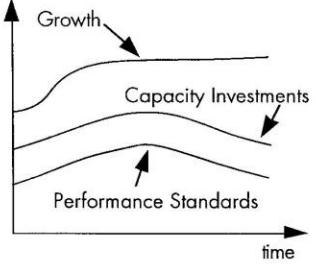


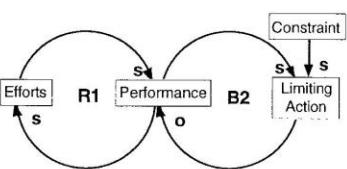
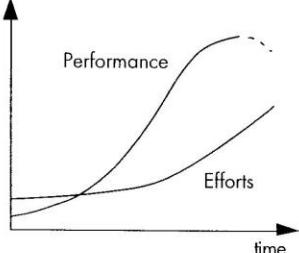
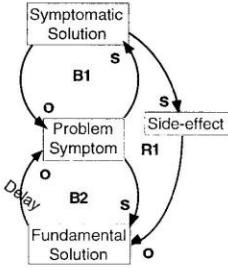
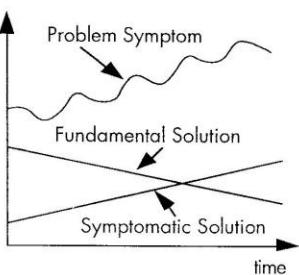
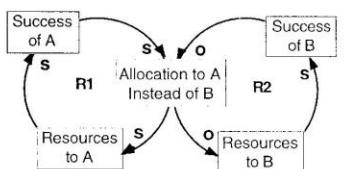
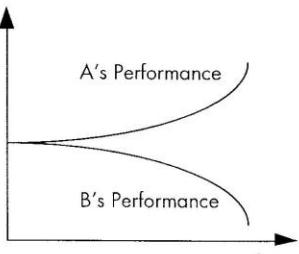
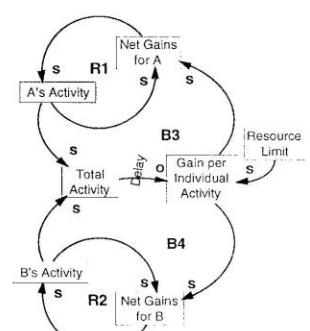
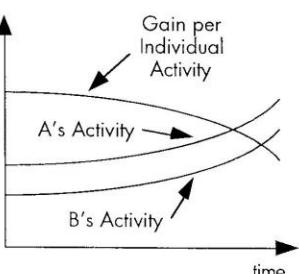


Toolbox

Each Toolbox presents a different systems tool using relevant business examples. Readers are encouraged to practice using these tools by applying them to issues of personal interest. See page 10 for a symbol key for the diagrams.

Archetype-Behavior Pairs

| Archetype | Storyline | Behavior Over Time |
|--|--|---|
| Drifting Goals  | The "Drifting Goals" archetype states that a gap between a goal and an actual condition can be resolved in two ways: by taking corrective action to achieve the goal, or by lowering the goal. It hypothesizes that whenever there is a gap between the goal and actual, the goal is lowered to close the gap. Over time, the continual lowering of the goal will lead to gradually deteriorating performance. |  |
| Escalation  | The "Escalation" archetype occurs when one party's actions are perceived by another party to be a threat, and the second party responds in a similar manner, further increasing the threat. It hypothesizes that the two balancing loops will create a reinforcing figure-8 effect, resulting in threatening actions by both parties that grow exponentially over time. |  |
| Fixes That Fail  | The "Fixes That Fail" archetype states that a solution used to solve a problem symptom quickly can have unintended consequences that exacerbate the problem. It hypothesizes that the problem symptom will diminish for a short while and then return to its previous level, or become even worse over time. |  |
| Growth and Underinvestment  | The "Growth and Underinvestment" archetype applies when growth approaches a limit that can be overcome if capacity investments are made. If a system becomes stretched beyond its limit, however, it will compensate by lowering performance standards, which reduces the perceived need for capacity investments. It also leads to lower performance, which further justifies underinvestment over time. |  |

| Archetype | Storyline | Behavior Over Time |
|--|--|---|
| Limits to Success  | <p>The "Limits to Success" archetype states that a reinforcing process of accelerating growth (or expansion) will encounter a balancing process as the limit of that system is approached. It hypothesizes that continuing efforts will produce diminishing returns as one approaches the limit.</p> |  |
| Shifting the Burden/ Addiction  | <p>The "Shifting the Burden" archetype states that a problem symptom can be resolved in one of two ways: a symptomatic solution or a fundamental solution. It hypothesizes that once a symptomatic solution is used, it alleviates the problem symptom and reduces pressure to implement a more fundamental solution. The symptomatic solution also produces a side effect that systematically undermines the ability to develop a fundamental solution or capability.</p> |  |
| Success to the Successful  | <p>The "Success to the Successful" archetype states that if one person or group (A) is given more resources than another equally capable group (B), A has a higher likelihood of succeeding. It hypothesizes that A's initial success justifies devoting more resources to A, further widening the performance gap between the two groups over time.</p> |  |
| Tragedy of the Commons  | <p>The "Tragedy of the Commons" archetype identifies the causal connections between individual actions and the collective results (in a closed system). It hypothesizes that if the individual use of a common resource becomes too great for the system to support, the commons will become overloaded or depleted and everyone will experience diminishing benefits.</p> |  |