The Cynefin Framework:
A new way to think about problems in organizations

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In previous articles, we discussed the need for each individual in a leadership position, from CEO to CI leader, to look internally and select areas for changing personal behaviors. Now, in order to more fully describe Transformational Thinking, we will look externally. Just like we explained in the previous articles, it is important to question the assumptions and mental models within which we operate. This article focuses on the following points:

- *The Cynefin framework, a sense making diagram for understanding your organization*

- *Realizing that the world is changing faster than your organization*

- *Understanding systems and complexity theory for making change*

In Dec 2000, McNerney, a highly regarded GE executive, considered by many to be the replacement for Jack Welch, was hired by the board of directors at 3M. He was expected to be the salvation to the company's slowly dwindling profits. The day after the announcement, the 3M stock price increased by 20% supporting the general optimism of the new CEO's ability to fix the company.

At that point in time, 3M was considered one of the best examples of a creative company. There were many articles written about the successes at 3M explaining how the experimental culture of the R&D organization had led to their success. But all of that would change.

McNerney viewed the problem at 3M through the lens of GE. He brought his playbook from GE and applied cost cutting by firing 8000 employees and demanding that all units adopt the Six Sigma program. Six Sigma is specifically designed to reduce variation and improve stability in the processes in order to improve quality and reduce cost. Thousands of staffers were

trained in Six Sigma and became green belts and black belts. They applied their new found expertise to make process improvements. What happened? Four and a half years later, McNerney left 3M for a better job, and his successors were faced with a different problem. The company had lost its creativity, innovation, and its experimental culture. It could no longer keeping pace with new product introductions. They increased efficiency and stability at the cost of adaptability. They needed to reverse this trend and improve their creative processes in order to continue their excellence in product innovation.

This is just one example of a leader taking over a company with a blanket solution that damages an existing environment of success. McNerney applied his "GE solution" to 3M rather than looking at the company from a total systems view in defining the real business problem. He did not take an approach that would have helped him understand how to approach learning his way to the critical few solutions. He did not consider how the traditional top down approach could cause unexpected damage.

Is it possible for a company to focus on stability and adaptability at the same time? Can you be adaptable like Apple or Google while simultaneously delivering quality and low cost products to your customers through stabilizing your processes? The answers are yes, and next we will demonstrate a way of thinking about your company so that you can do both at the same time.

The Cynefin Framework

This change in organizational thinking is much like the paradigm shift from Newtonian Physics to Quantum Physics. Physicists took us from a world of deterministic rules regarding large bodies of physical matter, to a world of particles too small to perceive, that can exist as both waves and particles. This paradigm change required physicists to rethink how they

approached scientific problems. The old rules did not apply to this new world, just like the rules of a hierarchical, command and control management system do not apply in a complex adaptive world.

Most leaders are still operating as if they can control things. The paradigm shifts to complex systems requires us to recognize where we do not control things; at least not in a direct cause and effect manner, for all parts of the system. Instead, we can change one component of the system, which will have a variety of effects on the rest of the system. A way to begin to shift our paradigm is by using the Cynefin Framework.

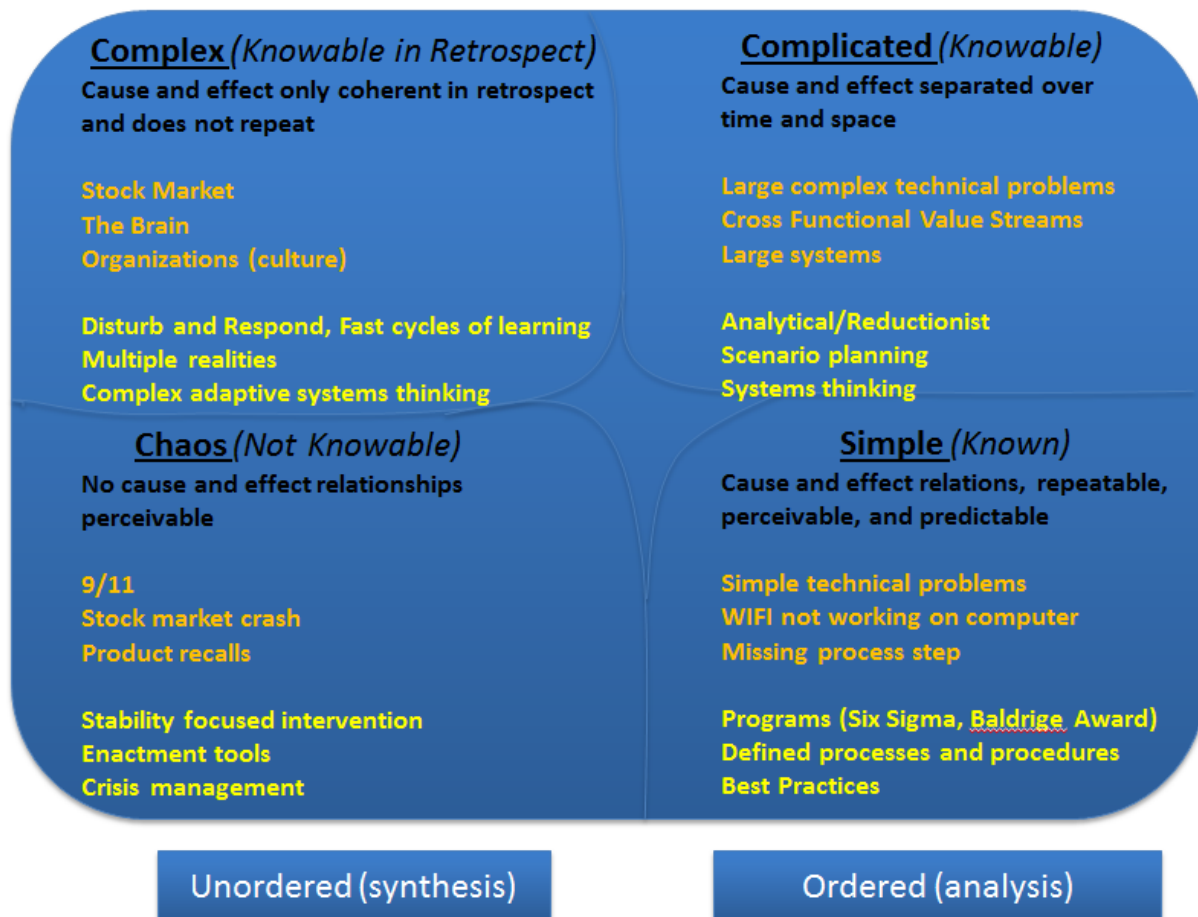**The Cynefin Framework Described**

History of the framework

The Cynefin Framework was a written in a Harvard Business Article in 2007 entitled "A Leader's framework for Making Decisions," by David J. Snowden and Mary E. Boone. Cynefin is a Welch word that is translated as a "place of your multiple belongings". This name was chosen to create the realization that we live in multiple worlds, i.e., family, work, etc., and that we can never really understand the complexity of them. It is a sense making model and a categorization model, used to help us clarify our thinking about specific situations so that we can make more informed decisions.

Description of the Framework

The framework is set up with a distinct separation from left to right. On the right are problems that are ordered and mechanical in nature. We have become very good at dealing with these types of problems and have many tools at our disposal for addressing these. These are analytical thinking type problems and have a fairly well delineated connection between cause and effect. On the left, the problems are unordered. These cannot be designed, but rather they

evolve over time. They are non-linear and have emergent properties. Examples of systems on the left side of the framework range from the stock market, to flowers and plants, to the physiology of the brain, to humans in organizations. At times, the complex systems become chaotic and the responses are quite different from our expectations.

Cynefin Framework

Complex *(Knowable in Retrospect)*
Cause and effect only coherent in retrospect and does not repeat

Stock Market
The Brain
Organizations (culture)

Disturb and Respond, Fast cycles of learning
Multiple realities
Complex adaptive systems thinking

Complicated *(Knowable)*
Cause and effect separated over time and space

Large complex technical problems
Cross Functional Value Streams
Large systems

Analytical/Reductionist
Scenario planning
Systems thinking

Chaos *(Not Knowable)*
No cause and effect relationships perceivable

9/11
Stock market crash
Product recalls

Stability focused intervention
Enactment tools
Crisis management

Simple *(Known)*
Cause and effect relations, repeatable, perceivable, and predictable

Simple technical problems
WIFI not working on computer
Missing process step

Programs (Six Sigma, Baldrige Award)
Defined processes and procedures
Best Practices

Unordered (synthesis)   Ordered (analysis)

Simple (Known) – In this category, the mechanical system is simple. There is a direct linkage between cause and effect. When McNerney went to 3M, he instituted Six Sigma as the solution for the cost containment in the company. He applied simple cause and effect thinking to an organization that was active in all four domains.

Complicated (Knowable) – In this category, we find fragmented value streams, where people operate within their own function while not looking around them or toward the end delivery to

the consumer. McNerney failed to see these fragmented value streams at 3M because Six Sigma tends to focus on variations and cost reductions at the process level, not the systems level where discontinuities across functions are major contributors to non-value added activities

Complex (Knowable in Retrospect) – Here, the systems' performance is emergent as a result of the interactions between the parts, and therefore we cannot observe any cause and effect relationship. We can however, examine the system in retrospect and identify areas where cause and effect occurred, but those usually cannot be repeated. Creativity is emergent, and that is the expectation of R&D and product development in organizations, both of which, therefore should be operating in this domain. At 3M, before McNerney, they were highly developed in this domain, but McNerney forced the efficiency model from the Simple domain into the Complex domain, attempting to increase stability into an emergent and creative process, which slowed down new product introductions.

 Chaos (Not Knowable) – Chaos occurs unexpectedly. It is impossible to fully understand the cause of the event and the aftermath of the system in response to the event. In the case of 3M, McNerney caused chaos by introducing his cost reduction and Six Sigma. He forced Simple domain thinking on the R&D's Complex Adaptive System domain.

System problems that are made visible by using the Cynefin Framework

Mismatch #1 – Between the internal company dynamics and the external world change

We live in a turbulent world. The speed of change is significantly faster than a decade ago and there are many unexpected events that continuously change our current expectations. One example of an unexpected event that changed our world view is the financial meltdown just 5 years ago. The existing rules changed overnight and an inability to adapt led many companies to go out of business. Many leaders continued running their companies as though nothing had changed, but the customers were living in that changed world and their expectations had evolved.

The chart above shows the mismatch between the outside world's speed of change vs. what is typical inside companies. The gap between the straight line of the company and the exponential curve of the complex world needs to be closed for your company to survive. The top curve shows the speed of interconnectivity fueled by the internet. This mass communication is enabling the increased speed of change in the world.

Inside our companies, we continue to abide by the business model that is rooted in the days when the outside world was not moving as quickly. Companies have not, therefore, kept up with the expectations of their customers, because they have not developed the ability to solve problems quickly. Instead of innovating and reacting to changing customer demands, companies are dealing with the bureaucracy of paperwork, and they spend time planning and strategizing for situations about which they are not fully informed.

Traditional management systems are focused on the Simple (Known) domain of the Cynefin framework. Most of the procedures and cultural rules have assumptions based on simple cause and effect relationships. They have hierarchical structures that cause delays as a result of decision making. There is a pattern of not working on problems unless the boss gives permission. The linkages between functions are very ineffective causing long delays and massive rework. The bureaucratic control systems impose rules on the whole organization creating non-value added work. Leaders have a 'results' driven mentality that creates additional work-arounds in complicated processes. The financial drivers are often fragmented by different functions causing conflicting initiatives and multiple priorities. Finally, communications is typically driven from the top-down, preventing the real problems at the value creation processes from being discussed and addressed. Survival in today's world requires both adaptability and stability, as well as a management system capable of addressing both.

Mismatch #2 – Between traditional change methods and change for complex social system.

Most organizational change experts, particularly before the turn of the century (2000), were deeply entrenched in the Simple (known) domain, in theory and practice, for making change in organizations. Most experts believed that change must take place from the top of the organization usually driven by "a burning platform". In 2003, there was an important Harvard

Business Review article written by Michael Beer and Russell A. Eisenstate entitled "Why Change Programs Don't Produce Change". It emphasized the flaws in the top down model and exposed the fact that change happens as a result of engaging the people in the organization differently. The current understanding is that 70% of all change efforts fail. The authors offer a six step framework to encourage successful change efforts. This framework, despite the understanding that successful change comes from engaging the people in your organization in that change, appears to be in a series of controls, as you would find in the Simple (Known) domain. The authors don't seem to recognize that the Complex (Knowable in Retrospect) domain should be the mechanism for changing the social structure of the company. The emphasis on the leader's role to deploy the change effort is valid and we will offer some concepts that are in alignment with the system approach and the Cynefin Framework discussed earlier in this article.

How should leaders be using the Cynefin Framework in order to create change?

You, as a leader, must recognize the domain you are in because that will affect how you make decisions and lead problem solving efforts. The leader's primary goal is to understand where the organization's primary emphasis should be inside the Cynefin Framework. For example, the R&D organization and Product Development should build competencies in innovation that are in alignment with the outside market and customers. They need to be fast and flexible. In the manufacturing area, there is a need to focus on moving from Complicated (*knowable)* to Simple (*known)* as fast as possible. We believe that the engagement of the people to create this dynamic across the entire organization is fundamental to successful change, and that the leader can use the Cynefin framework to make sense of his/her environment while developing comfort in embracing the uncertainty of the change process.

Why did we write this and why are you reading it?

The purpose of this article was to give you, the leader, a framework through which to understand the complex adaptive world in which we live and to give you ways to effectively respond to that challenging environment. In addition, this framework should begin to give you ways to think about building both adaptability and process stability into your organization. The ultimate goal is to engage the people throughout your organization in the process of creating fast learning cycles to address these issues.

This article addresses the external notion of Transformational Thinking. Think about this in connection with our earlier articles, where we considered the importance of the leader's personal development in the role of organizational change.

Next topics to cover

The next articles will be focused on how leaders need to encourage the people and themselves to run experiments and develop the practice of embedding new habits in the organization. It is only through practice that the habits can be formed to move from a singular focused organization to one that is aligning with the outside world. Only then will the organization learn to adapt and provide stability while utilizing the entire knowledge capability of the engaged employees.

We will be focusing on four practice areas while applying these practices to fix real business problems. The four practice areas are:

The Art of Problem Solving
The Art of Designing Value Streams
The Art of Creating new Relationships
The Art of Growing Organic Learning Systems

Our view on how to approach change has evolved from synergies across many disciplines including scientific theory, the lessons of from Toyota in focusing on the work, organization development and social system interventions, the psychology of personal habit change, Gestalt principles for effective human interaction, and complex adaptive systems theory. We will simplify your journey by sharing some real life examples and break down the practice areas into small and simple experiments you can run. We will attempt to keep your thinking in the Complex Domain throughout the journey.

If McNerney had understood he was operating in the wrong domain and practiced some of these experiments, he would have had a more rewarding result.

References

Why Change Programs Don't Produce Change – Michael Beer, Russell A. Eisenstat, Bert Spector
A Leader's Framework for Decision Making – David J. Snowden, Mary E. Boone
BloombergBusinessWeek Magazine, June 10, 2007
Complexity Leadership Theory, University of Nebraska – Benyamin Lichtenstein, Mary Uhl-Bien
Managing the Unexpected – Karl E. Weick, Kathleen M. Sutcliffe