Editor's Note: When I spoke with Richard Knowles (who will be attending the Global MindChange Forum) last week, he mentioned that he had just come back from the Belle, WV DuPont chemical plant he used to manage.

“With the systems and principles that I described in my book, we raised plant profitability 300% and cut injuries by 98 percent.”

Alone, that would be remarkable.

“And 10 years after I left, they are still operating at those same levels.”

Deeply sustainable best business practices are rare as hen’s tusks. As Richard explained it in terms of his Enneagram model, I believed his work so compelling that I want to share more of it with the Academy audience of executives and consultants, notwithstanding the publication of a white paper by the same author last week.

Richard is an unusual person. An industrial chemist by training and practice, his conversation skips from Meg Wheatley’s living systems to Ken Wilber’s holonics to Ralph Stacey’s complex responsive systems to Charles Krone’s systems thinking to Gurdjieff and J.G. Bennett and beyond.

While these names do not trip off the tongues of his colleagues in industry, he has a more important message to them: “These ideas work… everywhere.”

Three years after Love Canal became a national corporate and government scandal, DuPont sent Richard to run its troubled chemical plant in the same town, Niagara Falls, NY. To learn how he made it into a success, read The Leadership Dance, or begin by visiting www.centerforselforganizingleadership.com.
Defining the Processes

In this chapter, we explore new ways of understanding how organizations function, and how we can be more effective. By abstracting what we’ve learned from the crisis examples, we gain new insights about the underlying patterns and processes of living and working together in organizations. The patterns and processes are revealed using a new tool called the Process Enneagram. In using this tool, the choice to live and work in a different way opens up for us.

Using the Process Enneagram to Understand Organizations as Living Systems

The patterns and processes of the Process Enneagram introduced here are grounded in our experiences of organizational life. They emerge quickly in times of crisis. Understanding them will help us to have deeper insights into the way organizations function. We can think of organizations as living systems where all the parts are connected, constantly interacting and adapting to changes in their environment in ways that maintain their identity and sustainability.

All organizations are complex systems where the people are constantly changing as they interact with each other and their environment. Properties emerge from the non-linear, dynamical processes taking place among the people and their environment. We can't predict what these emergent properties will be, merely by knowing all the parts. These properties emerge from the complex patterns and processes that run in the organization. All the organizations that I know about constantly use some mixture of patterns and processes characteristic of living systems. The healthiest organizations are centered in self-organizing processes. There is, however, also a need for operational management and strategic leadership as well.

We begin the development of the Process Enneagram by looking at the organization from nine different perspectives. I have found this to be a useful and illuminating way to look at organizations. These are the same perspectives I found so useful when talking about the crises in the previous chapter. The attributes of these perspectives are easily seen and felt when we step into any organization, whether a family, a store, a business, a not-for-profit group, a church or a school. We all use some of these, almost automatically, as we step in the front door.

From each of these nine perspectives, we can ask unique, penetrating questions about the people and their organization.

Point 0 (Identity): Who are they? What is their Identity? What is their history, individually and collectively? (As the first cycle is completed, this point becomes point 9.)

Point 1 (Intention): What are they trying to do? What are their Intentions? What is the future potential?
Point 2 (Issues): What are the problems and issues facing them? What are their dilemmas, paradoxes and questions?

Point 3 (Relationship): What are their Relationships like? How are they connected to others they need in the system? What is the quality of these connections? Are there too many or too few of them?

Point 4 (Principles and Standards): What are their Principles and Standards of behavior? What are their ground rules, really? What are the undiscoverable behaviors that go on, over and over?

Point 5 (Work): What is their Work? On what are they physically working?

Point 6 (Information): Do the people know what’s going on? How do they create and handle Information?

Point 7 (Learning): Are they Learning anything? What are their Learning processes? What is the future potential?

Point 8 (Structure and Context): How are they organized? What is their Structure? Where does the energy come from that makes things happen in their organization? Is their hierarchy deep or flat? What’s happening in the larger environment, in which they’re living and trying to thrive? Who are their competitors and what are they doing? What is the Context or surrounding environment in which they are living and working?

Point 9 (Their New Identity): As they have moved through these questions, how has their Identity changed? Have they expanded and grown? What new things do they now know? What new skills do they now have?

This may seem like a complicated way of looking at organizations, but it is actually a process that we all use unconsciously, at least in part. To make the point, let’s use the points of the Process Enneagram to compare two large stores I use. One is a large, mass merchandiser with a national chain of stores. From the company’s name, I know who they are and that they are trying to sell modestly priced clothing and home furnishings. This is their Identity at point 0 and Intention at point 1. One of the Issues (point 2) I see when I step in the door is the clutter in the aisles that makes it difficult to get around the store. Their behavior towards each other and me is not particularly courteous or considerate. They complain about their Company, so I conclude that they don’t have much value for their Relationships with each other, with me their customer, or with their employer. The poor relationships show up at point 3, and the lack of values supporting good customer relations shows up at point 4. Their physical Work (point 5) is to sell a lot of merchandise. Whenever I ask help to find something, I get vague answers like “It’s over there somewhere,” so I must go on a search for what I need. From this, I conclude that the clerks don’t know much about what’s going on. They are limited in the amount of Information they have, or maybe they just don’t care. This shows up at point 6. I also conclude that there isn’t much Learning going on here about the business or about ways to improve it since nothing seems to change from one visit to the next. This lack of Learning shows up at point 7. Finally, I also conclude that their Structure (point 8) must be organized in a rigid hierarchy because that’s the only way that they can keep things organized, even a little bit. In my experience of organizations behaving like this, most of the
employees do as little as possible. I don’t feel very good in a place like this, so I try not to go there to shop. Their Context (point 8) is one where there are other stores nearby, so I prefer to shop in those stores.

When I go into a large store of a different company with a national chain of stores, however, the picture is quite different. I know from their name who they are and that they are trying to sell stuff for helping me to keep up my home. This is their Identity and Intention, which show up at points 0 and 1. They have some things in the aisles, but seem to have them well ordered and the housekeeping is quite good. The aisles are more open and easy to move through. They have tried to address the issue of inventory supply much better than the store in the first example; this shows up at point 2. Their behavior towards each other and me is helpful and courteous; they are interested in me, the customer. From this, I conclude that they have good working relationships and value the way they treat each other and their customers. These are their Relationships (point 3) and their Principles and Standards (point 4). Their physical Work is to sell stuff, like the first store. This shows up at point 5. Information (point 6) seems to flow freely because the clerks know the answers to my questions. When I take something back, they talk with me and seem to try to learn how to serve me better and have a more successful business. This Learning shows up at point 7. I conclude that to do the work they are doing and to behave in the way I see them behaving, they must be organized in teams and their Structure must be fairly flat. These observations show up at point 8. I feel vitality in this store and like to shop there. In considering their Context, their competitive environment, I know that the price of the stock for the second Company has gone up while the first one has entered into bankruptcy. I expect that there is a relationship between these observations made at the local level and the things going on at the national level. This is a simple example of the kind of more or less unconscious analyses we all can and do make in a matter of seconds, at least in part, whenever we see and experience an organization.

With these nine perspectives arranged around the circle, their interconnectedness becomes quite clear (Figure 2). This Figure illustrates the “webbiness” of so much that’s going on.

The Web of connections is like a nervous system with each perspective informing all the others. As in a nervous system, some of the connections are stronger than others, and the connections need to function in specific sequences. We can’t walk, for example, if our nerves fire in the wrong sequence.

The way that we usually see things happening in organizations, like in the preceding store examples, shows up around the circumference of the circle in Figure 2. These are visible things we see in the physical world.
In order to develop a deeper understanding of what’s happening in organizations, however, we need to look into the inner patterns and processes. In the next sections, the command and control patterns and processes and the living systems patterns and processes are explored.

**Command and Control Mode: The “Machine” Paradigm**

Most leaders and managers desire reliability, stability, predictability and control in their organizations. These are great for machines, but people and organizations are not machines. We all want these attributes in an airplane, computer or car, but in organizations they can cause serious problems.

The intense desire by many managers for reliability, stability, predictability and control often leads them to try to use excessive control over their organization in order to achieve these results. This leads to many undesirable and unintended consequences.

Over the last year or so, I’ve had a chance to talk with some TEC Groups (The Executive Connection). I ran a brief survey in 5 groups from around the USA to see what they thought about these things. Out of twenty-nine CEOs, twenty-eight strongly desired these features. They all felt their employees were not contributing their best. Twenty-eight saw high stress-related problems in their organizations, fourteen had high turnover, twenty-two faced serious resistance to change in their organizations, and twenty-eight of them were unsatisfied with their overall business performance. Yet all of them reported that they were working very hard to improve their results. In their personal lives, sixteen reported that they were not happy with the balance between work and family.

Let us now look at these inner patterns and processes. Many times, the leaders in the organization are vague and unclear about who they really are, (Identity) and what they’re trying to do (Intention). Normally, they don’t engage the organization in conversations about such things, so when they announce a new initiative, no matter how good and well thought out, lots of Issues are raised. This is illustrated in Step 1 in Figure 3. People at the top see all the questions and Issues that people raise about the changes as resistance to change.

Typically, they hurry to move on. They will probably dictate a Structural solution, like a new organizational structure (as in re-engineering) or new rules and procedures. This is illustrated as Step 2 in Figure 3. Then the new Work is imposed, in the belief that this is the answer to the problems. This is illustrated as Step 3 in Figure 3. Those who actually do the physical Work under the imposed Structure try to make

![Figure 3 ~ The Command and Control Pattern and Process](image-url)
sense of what’s going on, and become stuck in all the unresolved Issues. This is illustrated as Step 4 in Figure 3.

As the organization’s leaders push harder so that they can accomplish their goals, the people doing the work push back just as hard as they struggle to make sense of what’s happening and why. Around and around this triangular pattern we go. *Principles and Standards, Information, Relationships and Learning* simply aren’t discussed. This creates enormous incoherence and waste in the organization and is a source of much of the stress that people experience.

**The “Living Systems” Paradigm**

In Chapter 1, we looked at the story of saving the amines business. You’ll remember that we decided to do the work in a very unusual way. We worked with our R&D and Plant people, as well as the instrument vendor, to design the project. Everyone from the mechanics and operators to the top plant management was deeply involved in weekly project meetings in the control room of the existing operation. We did not run a parallel process and we made the needed changes during the scheduled, annual maintenance shutdown. This was about a $50 million/year sales business so these decisions were not inconsequential.

The project was done working out of the living systems paradigm. The net result of working this way was a project costing only about $3 million and we were able to do it in only 10 months. The process started up without incident and ran at full capacity, producing top quality product in only 4 days. We set a new standard for the whole Company in retrofit projects like this, cutting both the cost and the time in half.

As we explore using the living systems paradigm, two patterns and processes will be developed. The first concerns self-organizing patterns and processes, while the other concerns the way that the actual work takes place.

In looking at the pattern in Figure 4, we will now look at the inner patterns and processes at points 0, 3 and 6 which are concerned with Identity, Relationship and Information respectively. These are the central elements of Self-Organization.

As we did the amines instrument conversion project, everyone in the project was clear about our Identity. We shared all the Information at least weekly and, as we worked together, listened, and talked, trust and interdependence built. Our Relationships became healthier and stronger. Anyone could go to whomever they wanted to get the Information they needed. This was a very deep process. Working in this way improved everything we did, both during the conversion and afterwards. Used consciously together, these are the patterns and processes for developing self-organization.
This process of self-organization goes on continuously in organizations. It is a process that has a timeless quality; it can be seen as operating outside of our normal view of linear time. It applies to everything we do, now and into the future. One of the first things a leader can do to open up his or her organization is to share Information, to help people get clear on their Identity and to help set the environment so that healthy Relationships can develop. When these processes improve they have a positive impact in all future work.

To have our work processes go well we need to begin with a clear, compelling question that relates to the specific work that we wish to do. This question is developed by the people involved and must be compelling in order for us to have the interest and energy to take on the work effectively. For the amines business example, the question was: “How do we make an effective, low cost conversion from pneumatic to distributive control systems?” The scope of the beginning question can vary enormously. It can be very narrow, like “How do I type a report?” or broader like “How do we improve the customer service in our business?” or very broad like “How do we change the entire nature of our business?”

The elements highlighted in Figure 5 all relate to how specific work gets done. For example, if I discover that I need to join two boards (Identity) and I decide to use a nail to join them (my Intention), I must hold the hammer and nail properly (Principles and Standards). I must decide where to put it, and how to hold the work (Issues and Tensions). Then I have to decide how to set up the work place (Structure) and actually drive the nail (Work). Hopefully, I get better at driving nails and building things (Learning). If I write a few notes, I’ll have some Information that will help me as I go forward. I’m in a process of Learning and growth.

The questions that the people in the organization address as they consider the nine attributes all relate to the opening question, and so this opening question must be important and compelling to them.

All the elements of effective work processes are fractal in nature; that is, they display repeating patterns that are similar at many levels of scale, can be used at any level of scale, and show up throughout the organizations in similar but not identical ways. In my own experience, I’ve used these patterns and processes to consider questions of my own personal development, for mentoring, for developing my leadership team, for operating a whole plant and for working in the community. We are using them now as we develop the leadership team for the City of Niagara Falls, NY.
When we in the organization are engaged in conversations about Identity and Intentions, we all get clear on what we’re about together. This shows up as Step 1 in Figure 5. The double arrows show that, as we move around the Process Enneagram, our intentions at the base level become part of our Identity at the next, upper level. This indicates we’re growing and learning. We then agree to work together in new ways (Principles and Standards: the organization’s ground rules). This shows up as Step 2 in Figure 5. We can then take on the Issues in a way that deals with them much more effectively. We can move away from an “either/or” debate and explore “both/and” possibilities. This shows up as Step 3 in Figure 5. The Principles and Standards can be seen as analogous to homeostatic processes for a living organization. These homeostatic processes maintain the stable way in which the people in the organization agree to engage each other. I see them like the simple rules that underlie complex behavior in chaotic systems.

In many organizations, management imposes these rules. Typically, in mature organizations, the rules have grown and evolved over the years in such a way that practically no one knows where they all came from or why they were developed in the first place. Such things are usually undiscovered. The fact that they are undiscovered is often undiscussable. Yet these rules exert a powerful influence on the way people in the organization work together. These hidden, powerful forces play a major role in management’s efforts to maintain stability, reliability, predictability and control. They often are in conflict with the overt things management is saying about how they want things to be in the organization, so we have incoherence and stress. This mode of operation blocks any real chance for learning and growth.

*To be concluded next week.*

**ABOUT THE AUTHOR**

Dick Knowles, a new member of the World Business Academy, worked in the DuPont Company for 37 years in many different leadership positions, including Plant Manager and Director of Community Outreach. He has had outstanding success in leading organizational change and making other leadership improvements while in DuPont and now as a world-known guide and teacher. He’s worked extensively with people in steel mills, sugar mills, chemical plants, brick and tile factories, pipe and beam factories, wall board factories and quarries, an accounting firm, with the City of Niagara Falls, NY, with school boards, with children’s homes and homes for the homeless, and in many other community efforts. His focus is helping people and their organizations achieve more effectively what they want to become. Over the six years, his work has carried him from the USA to Australia, New Zealand, China, Canada and the United Kingdom.