**Praxis-Pentagon of Organizational Learning:
Metamorphosis of Innovative Processes**

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This paper reflects our experience with initiating an organization-wide learning and change process within a global pharmaceutical company in Germany. The tools and method that were used in this process are based on what we refer to as Organizational Learning Pentagon. The five building blocs of the Pentagon are based on Peter Senge's concept of the five disciplines (Senge 1990, 1994), Edgar Schein's idea of process consultation (1987) and corporate culture (1992), David Bohm's and Bill Isaacs' idea of dialogue (Bohm 1990, Isaacs 1993, 1999) and Chris Argyris and Don Schön's idea of double loop learning (Argyris and Schön 1996). The Organizational Learning Pentagon has the following five corner points: 1. Systems Thinking, 2. Personal Mastery, 3. Dialogue, 4. Parallel Learning Structures and 5. Process Consulting.
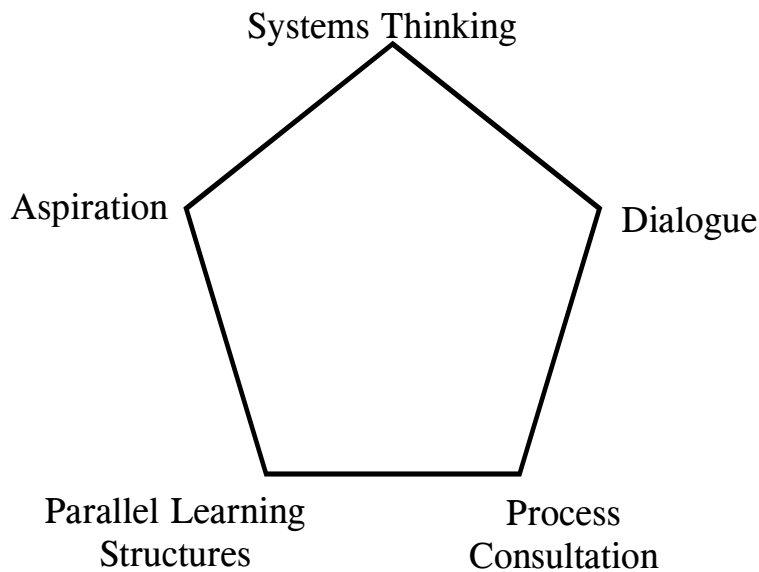

Figure 1: The Organizational Learning Pentagon.

Each corner point represents a discipline that is grounded in distinct methods, principles, and practices. The pentagon consists of two building blocks. The first building block encompasses Disciplines 1-3, which represent the three core capabilities that underlie the five disciplines Senge described in (1990): conceptualization (Systems Thinking), conversation (Dialogue) and aspiration (Aspiration). These three learning capabilities are paramount in any process of organizational learning. However, in order to create business results, these three learning capabilities have to be situated in real work practices by integrating two

additional disciplines: Process Consultation (Schein 1987, 1999), and innovations in infrastructures, or Parallel Learning Structures (Bushe and Shani 1991, Senge et al. 1994).

 (1) Systems Thinking

Systems Thinking, Senge's fifth discipline, allows actors within systems to identify the causative factors and feedback loops that determine the behavior of that system, and to recognize them as dependent variables of their own thinking (Senge 1990, Kim 1992, 1994).

(2) Aspiration and Personal Mastery

Among Senge's five disciplines, Personal Mastery is the one that provoked the most reactions from his readers. Profound change processes always involve significant personal changes. Personal Mastery is the capacity to tap into the sources of one's own aspiration, commitment, and will: What do I really care about? What do I want to create? (Senge 1990) Or, as Michael Ray frames the creative process: Who is my Self? What is my Work? (Catford and Ray 1991)

(3) Dialogue

The third cornerstone is conversation or dialogue. Dialogue, at one level, is simply the art of collective thinking. It enables individuals and teams to see, suspend, and reflect on their deep assumptions and mental models in-use (Bohm 1990, Isaacs 1993, 1999, Schein 1993). Dialogue integrates what Senge (1990) refers to as Mental Models and Team Learning.

(4) Parallel Learning Structures

Parallel Learning Structures are groups, networks, or communities of people that operate in parallel with the formal organization (Schein, 1995; Bushe and Shani 1991). For example, the executive leadership team of a large U.S. based Oil company gathers four times a year for off-site learning meetings. The purpose of these meetings is to create, capture, and disseminate knowledge and learning. Hence, the first ground rule for these meetings is that no decision will be taken during these meetings whatsoever. The purpose of the gatherings is not to make decisions, but to learn together.

(5) Process Consultation

The fifth cornerstone is Process Consultation (PC). PC is a consulting methodology that is concerned with *building helping relationships* with clients, and among peers, subordinates, and bosses (Schein 1987, 1999). In Process Consultation, the client-consultant relationship is framed as a learning relationship geared toward helping others to help themselves (Schein 1999).

The Case

In a company retreat convened to realign corporate strategy, the CEO of a global pharmaceutical company asked the attending general managers the question they considered the greatest challenge for their business in the near future, and how the corporate group could help them meet these challenges? The similarity of the answers surprised the participants. In fact, the same answer is heard again and again: The challenge is globalization, increasing speed, coping with the last merger, and redirecting the leadership.

After the company retreat the corporate management publishes the blueprint for the group's strategic realignment. It is based on the statements made by the general managers of the countries represented. According to one focal point, the companies should not merely react to changing markets but play an active role in effecting the change. Corporate objective number five thus reads: "We want to become a learning organization (LO) which fully uses all of its resources — people, technology, information and capital."

Strategic Realignment in Germany

The General Manager and the Vice President Corporate Development, compile an inventory of the situation in Germany: The Healthcare Reform Law of 1993 has increased cost pressures in the healthcare market. Moreover, the German market has undergone structural changes.

A dialogue with several staff members is initiated. Most of staff are fed up with change of any kind; they report on three projects that have taken place over the preceding twelve months: reengineering, merger, and strategy development. "It has been my experience," states one participant, "that these projects take enormous amounts of time, in addition to one's regular work, but end up not becoming relevant." Another colleague adds, "We have produced mountains of data, and binders full of plans and charts — but, as far as I know, the suggestions were not used. Actual decisions do not follow."

Individual interviews — each lasting several hours — are held with every one of the seven top managers. These interviews are to furnish the data for designing a planned management workshop. Some pivotal questions are: "What does our company need you for — what do you need your company for? What do you need the other executives for? What do they need you for?" [1]

Feedback of the results is delivered two weeks later. The data indicate three Mental Models regarding
         1. the problem,
         2. the cause, and
         3. the solution.
The following matrix maps the variety of perceptions (Table I).

Table 1: Three Views On Current Reality: the Problem, the Diagnosis, the Therapy

	View 1: "Concorde"	View 2: "Boeing"	View 3: "Acrobat Flyer"
Issue/Problem	„we do not have enough marketing power"	„we can't look much ahead – don't have enough sight"	„we aren't taking enough risks"
Diagnosis/Cause	„we aren't „aggressive" enough"	„we act faster than we can watch"	„we do everything the way we always did it and we let go everything that we never did before"
Therapy/Proposed Action	„need to speed up"	„need to slow down"	„need to change direction"

Leadership Workshop

Based on the interview data, the internal LO person, in cooperation with an external consultant, designs a workshop for the top management.

The thirteen attendees (eight Vice Presidents, one joint-venture General Manager, four Business Unit Managers) meet in a small secluded hotel. The meeting space invites people to move about. The tables have been placed against the wall, and chairs are in limited supply, causing people to walk about or sit on the rug. Tall café tables encourage spontaneous conversation. By all standards, the situation is "unfinished."

"What's missing is fertilizer." One participant has just placed a shrivelled, tired-looking small office plant on the "Status Quo," a folding table. Another person holds up a rose: "Corporate interest comes before self-interest." In an introductory round, each participant, using an object she or he brought along, describes where, in her or his view, the company stands today. The following

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[1] The interview questions were inspired by a lecture held by Professor Ekkehard Kappler (Kappler 1992).

two-and-a-half days reflect the tension between present reality and possible future on three planes: individual, team, overall organization.

Space

Spatial arrangements make this tension palpable: At one end of the room, posters hang from clotheslines, showing corporate vision, objectives, values, principles, etc. developed by the corporate executives. The "Status Quo" in front of the posters represents the views of local management. At the opposite end of the room, the just-formulated vision of the company Germany, its corporate goals, etc., are displayed. Along the sides of the room, posters showing the key initiatives with respect to the envisioned goal formulated for General Management, and action plans and responsibilities are hung.

Process

"We bear the responsibility for sales, but are not part of general management. Management works toward functional goals, but they do not feel that they are responsible for sales." The Business Unit managers are sitting on chairs which form an inner circle; surrounding them is an outer circle of chairs on which General Managers are seated. "Why do we need to be a team?" Only a few minutes earlier, the CEO had described the situation from his point of view, singling out the BU Managers for blame. A direct confrontation ensues, but leads into a long dialogue. A mood of concentration sets in. People listen to each other and keep the conversation going. It is close to 1 a.m. by the time the meeting breaks up.

By the afternoon of the second day, the V.P. of Sales is at the end of his patience: "We are sitting around and talking as if we had nothing to do with the problems. We are the leadership!" Without further ado, the Sales V.P. takes over as moderator. Things start moving, getting heated up. "Just what is it you are doing?" ask the hotel's owner and the service manager. For the last twelve hours, none of the guests has been seen in the dining room. When the third order for sandwiches is received on that day, the owner stops by to see what is wrong. A joint vision is generated on Sunday morning. All the elements are on the table. Within fifteen minutes during the coffee break, a self-appointed editorial committee writes down the Statement of Corporate Vision Germany. "I have never seen anything like this before," says one participant. "Normally, it would have taken us weeks to forge this vision. We would have bargained over every word without reaching a consensus in the end. And the best part was that the whole thing was blessed and approved by everybody within two seconds after the break."

A fact-finding trip follows lunch. Thirteen very focused individuals stroll through the room taking in what was there before and what is new now. The objective to identify the three key leverage points essential for her or him in attaining the corporate goals. You could hear a pin drop. "At that moment, I realized," said a participant later, "it is really I who is being challenged to decide what the key points are. No one else."

With speed and concentration, the participants present the leverage points which they have identified. Which groupings emerge? The attendees quickly cluster the presented points into an overall picture. It turns out to be a triangle, with "Cultural Change" written in the middle. Its apex bears the inscription: "People," the two angles at the base read "Customer Focus" and "Products and Services." All three initiatives are assigned different corners of the room. Each participant now has to decide which initiative she or he will personally sponsor over the next six months. All gaze at one another in astonishment. Two attendees went into the corner marked "Products and Services," two others to "Customer Focus." All others have gathered at "Cultural Change and People."

The principal results of this workshop are: 1. Definition of a common vision and of common objectives; 2. identification of three initiatives seen by management to be key leverage factors in the process of redirection and change: Initiative "Cultural Change and People," initiative "Customer Focus" and initiative "Products and Services." Each of the three groups has two sponsors in the two top layers of management; 3. Establishment of a new core group and two additional groups within General Management.

A decision is quickly reached: The second leadership workshop is to convene three months hence, during the third week of October. Meanwhile, experiments and projects regarding the focus initiatives are to be launched. One participant in the lobby: "I really was very skeptical — I couldn't quite imagine all this. But it was worth it in any case. I've never experienced anything like it." Upon their return to their jobs, the managers start the initiatives for which they have assumed responsibility.

GRASSROOT Projects

Parallel with the leadership workshop new questions arise — not only among the original initiators of the process of change. How can larger parts of the organization be included and, thereby, the employees' experience and know-how be made productive? No longer should abstract topics coming from the top down define the tasks and the composition of teams. Possible projects should be driven from the bottom up by experience and by problems, and should be determined by those employees who see tangible problems at their workplaces and need other members of the organization to help them find a solution. Such

employee-driven projects are called "GRASSROOT Projects." GRASSROOT projects are given a certain degree of invisibility and support before they are made public within the organization. This prevents the project development from being thwarted by premature "growth control" and enables the initiator of such a project to succeed with a good idea even if it conflicts with taboos or the opinions of supervisors. In this sense, GRASSROOT acts as a protective zone where initiative is given financial and consulting support. Everywhere in the organization GRASSROOT projects are initiated.

Project Office

The next question that arises is how to keep staff up to date. A design student creates a logo: an open door. This door allows access to the Room of Opportunities to which individual creativity can be brought as part of GRASSROOT projects. The symbolic room turns into a real project office, for which management has made unused office space available.

The company's employee newspaper reports on the overall process and its various GRASSROOT groups as well as the focus initiatives by the top-management. As a result, employees ask for a section of their own in the newspaper, so as to make their activities more transparent. The paper starts to report on day-to-day events.

Strategy Summit

Hamburg-Altona Streetcar Depot, 7 A.M. The hall buzzes with activity. Seventeen initiatives, focus groups, and GRASSROOT projects are setting up their stands. At 9 A.M., the plenary panel begins with a look back on the past year and prospects for the next year. It is attended by about 120 staff members who have been actively engaged in the process of searching for direction and change. This is the hard core of the workforce — the real achievers. Their experiences are food for thought. Learning outcomes are identified. Strategy results from practice.

In different areas of the room seventeen initiatives are presented; Out of these initiatives, ten workshops are formed. During the plenary session, the workshops report back, addressing three questions: (1) What happened? (2) What have we learned? (3) What are the new questions and steps to be taken?

A piano is heard in the background. "Chill-outs" provide islands of retreat in the unobstructed hall: deep carpets, sofas and small table lamps in pink, green, and white. A huge crystal globe covered with tiny silvery spangles is suspended from the ceiling of the two-storied open hall. It will rotate in the evening, shedding sparkling starlight upon the people seated at long, festively decorated dinning tables.

About 120 people meet for the closing panel. In its documentation, the editorial team formed at the end of the day describes the outlook for the next year:

"Many plans were made... drafts prepared... project groups established... partial steps taken... A few opened their previously closed minds, engaged in discussion, invested time and commitment and, in the best of cases, arrived at practicable results. Individual projects have been a success. Now everyone is called upon to bring current projects to a rapid conclusion, converting ideas into palpable results. For this, we need courage and clear language."

Customer Dialogue Study

One of the outcomes of the Strategic Summit is that the need for a new customer relationship became obvious. Dialogue interviews with customers (physicians) are conducted, and three different profiles of physicians' needs are identified: the scientific *information -users* who are content with merely receiving the offered product information, the *application-oriented* physicians who would like to be regarded as users, and who need the product information to be expressed in terms of *symptoms of disease*, and the research-driven physicians who want to be regarded as fellow researchers, and whose communicative style aims for a process of mutual fact-finding.
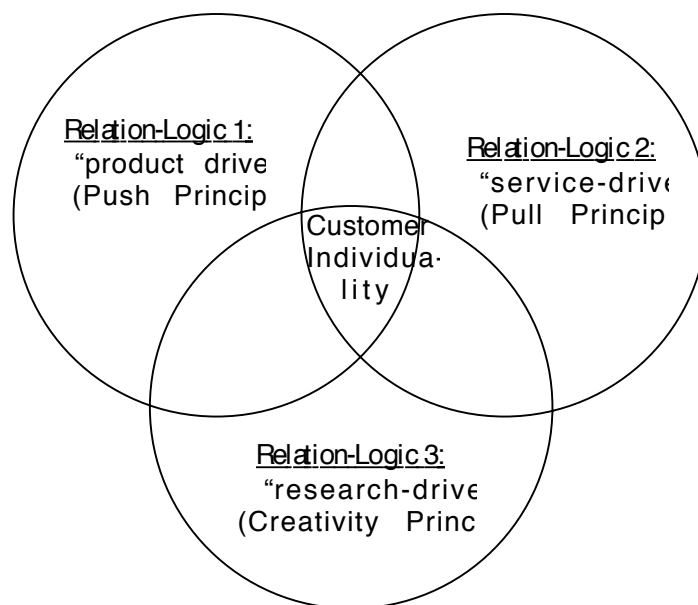

Figure 2: Three Customer Relation Logics (from: Käufer, Scharmer, Versteegen 1996)

Figure 2 describes three customer relation logics. The first logic is *product*-based and is driven primarily by the sales representatives ("pressure principle"). The

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second is *service*-based and driven primarily by customer needs ("pull principle"). The third logic is based on *research* and mutual fact-finding and driven by the creativity of the two cooperating partners ("creativity principle").

Since the existing field sales force — due to its past successes — is almost entirely characterized by product-driven relation logic 1, the question arises how to develop and establish the organizational basis and the core competencies for the two other customer relations levels.

The discussion of the study results produces a project proposal which aims to develop the second and third relation logics: building strategic learning partnerships with the self-organizing physician networks, and building a nation-wide platform from which the creators of new cooperation models between medical practitioners and other professional groups can reflect on their experience, learn from each other, and jointly develop their next steps.

The nationwide project "Making Network Experience Productive" is put in place.[2] A year later 120 doers, initiators and activists from physicians' networks and new cooperative models were to meet for a symposium. 30 companies and organizations sponsored the project jointly.

Reflection: Anatomy of an Innovation Stream

The meeting of General Managers that started the whole process revealed to all attendees that the present and future challenges could only be met if the organization succeeded in developing organizational learning capacities.

Following the German leadership team's workshop, change projects formed both at the periphery and the center of the organization. The GRASSROOT projects in the field sales division are an example of change processes coming from the periphery of the company. The three focus initiatives initiated in the leadership workshop are examples of change processes originating in the center of the organization.

What followed was a dialogue with customers that finally transcended the corporate boundaries, reaching in the customers (physicians) the real target group for the value creation brought about within the company.

Finally, a nationwide physician practitioners' symposium, "Making Network Experience Productive," marked the farthest-reaching effect of the changes outlined above. Establishing a nationwide platform by and for practitioners in networks designed to helping them to learn from their experiences better and faster.

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[2] Ärzte-Zeitung June 18, 1998.

Thus we have come full circle. The symposium constituted cooperation with the customer — a requirement set forth at the beginning of the above episode. At present, some of the change processes initiated in the leadership workshop two years ago have dissipated; some have materialized into project experiences, and others have been incorporated into new organizational routines, becoming part of the corporation's knowledge base.

Results

From today's vantage point, the process described above has resulted in four outcomes: First, improved leadership and dialogue ability within the leadership team and between the leadership team and the rest of the organization; second, prioritization of central change processes (Focus Initiative on Cultural Change and People; Customer Focus Initiative); third, identification of two new relationship logics with customers as a basis for strategic realignment of the sales force of the future (Dialogue Study); fourth, a parallel structure of learning for the top leadership team (leadership workshops).

An Emerging New Set of Principles

Throughout the change episode outlined above, a team composed of staff from the Corporate Development Group and external consultants provided consulting support, facilitated and designed workshops, conducted interviews, and helped organize events. The external consultants included researchers affiliated with SoL (the former MIT-Organizational Learning Center) and HdK, Berlin (School of Arts). The Organizational Learning Pentagon described in the introduction of this article served as the basic toolbox that the team used throughout its work. In its reflection during and after the process another set of less visible, but no less significant principles and practices emerged and moved into the foreground of our attention. They are:

1. Primacy of Praxis

2. Space-Time Sculptures

3. Umstülpung — Moving Through the Eye of the Needle

4. Self-transcending Will

5. Uncovering Common Will

The team considered this set of new principles as relevant to the success of the process as the learning pentagon .

Principle 1: Primacy of Praxis - Creating Situated Practice Fields

Primacy of Practice focuses on creating fluid, situated practice fields that allow learning environments to follow the flow of innovation and change, rather than organizing for learning around a fixed set of workshops, exercises, and infrastructures. In our work, we have found two principles for structuring workshops (a) to begin with "current" and "emerging realities" and then move to images, inspirations, and intuitions of the future; (b) to always stay with an unfettered focus on the participants' real work challenges, and make the teaching of tools contingent upon the current issues and challenges.

Primacy of Praxis avoids the traditional activity of experts lecturing novices, and instead focuses on helping participants perceive the process by which they continuously recreate and reenact the reality in which they operate. In this regard, Primacy of Praxis situates Sytems Thinking in the context of real work.

Primacy of Praxis shifts the focus of practicing from the context of "doing exercises" to the context of "coping with real world praxis." The Greek term *praxis* means action. Aristotle distinguished between two types of action: (1) action that we perform in order to make something *(poiesis)*, for example producing shoes, or (2) actions we do for the purpose of enacting this activity for its own sake *(praxis)*, for example, the process of playing music. Thus, Primacy of Praxis has a double meaning. On the one hand, it simply means that practitioners define and own the agenda. On the other hand, it means to engage in activities that contain their goal in themselves, i.e., in activities that we value because of themselves.

Principle 2: Space-Time Sculptures

The design of most workshops and seminars is based on very constrained uses of time and space, which we call unidirectional architectures. For example, one side of the room is used by presenters, and the audience sits on the opposite side. Or often, the meeting is devoted either to reviewing the past, or to planning the future. What is missing in these examples is a social technology that allows the systematic inclusion of the *full spectrum* of temporal and spatial diversity. The principle of Space-Time Sculptures focuses on eliciting the wholeness of temporal and spatial experience.

One way of dissolving a spatial fixation on one perspective is to rotate the placement of the presenters in the room by 360 degrees during the course of the workshop. In this way, participants face each wall of the room in successive stages. For example, in a three or four day workshop we would begin by describing the current situation and the "journey that brought us here" on Wall I (**Present Reality, Timeline).** Then the spatial orientation would change, and the

second step would focus on sensing and articulating emerging new patterns within and around the system (Wall II: **Emerging Patterns**). The next morning, we would start with yet another spatial orientation. The third step focuses on **Presencing[3] Emerging Futures** and crystallizing the vision that people want to create (Wall III). This step is concerned with the "journey of the future" and is organized around questions like purpose, vision, and will. Finally, the fourth step evolves from a *Forschungsreise,* a "journey of getting there," represented by moving between the two opposite poles of "present reality" (Wall I) and the "aspired future" (Wall III). Focusing on the creative tension between present and future states results in identifying **Key Initiatives** (Wall IV) which will help participants move the system from current reality to the aspired future.

As inspired by Professor Nick Roericht and his students at the HdK Berlin (Berlin School of Arts) we attempt to allow for a more diverse experience of time and space by breaking up the space with tall bistro tables and chairs, sofas, easy chairs, and café tables. The goal is to create a physical space that can be arranged and experienced in many different ways, and this mirrors and reinforces the notion that participants can also rearrange their internal experiences in new ways.

Principle 3: Umstülpung (Inversion) – Moving Through the Eye of the Needle

The relevance of the personal journey of participants during workshops became more obvious to us during our work. Whether or not participants were able to move through the "Eye of the Needle" in a workshop corresponded to the success and the sustainability of the change process they initiated. In his theory of social sculpturing, the avantgarde artist Joseph Beuys (1989) coined the term "Umstülpung" (inversion) to describe the process that we refer to as moving through the eye of the needle. Umstülpung literally means turning a whole field upside-down and inside-out. For a better understanding of this shift, let us consider one of the root polarities of social reality formation: the relationship between self and other, or self and world. Says Goethe:

> "Man knows himself only to the extent that he knows the world; he becomes aware of himself only within the world, and aware of the world only within himself. Every object, well contemplated, opens up a new organ within us."[4]

For Goethe, polarity and enhancement mean that the poles of a polarity are not separate but intertwined. The more you focus on one side, the more likely you

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[3] Presencing means: Sensing emerging futures and bringing your full Self into reality (Scharmer forthcoming).

[4] Goethe 1823, quoted from Crottrell 1998

will end up at the other. Man "becomes aware of himself only within the world, and aware of the world only within himself."

Umstülpung or inversion denotes a shift in identity. Before going through the eye of the needle, social structure is perceived as the primary reality. Individual identity is a quasi "secondary" reality because individuals see themselves as having to adapt *to* the primary reality of the existing social structure (example: people complain about issues in a victim mindset). After "going through the eye of the needle," people experience social forms and structures entirely differently because they have participated in creating those structures themselves (example: people co-creating their future). Thus, their Self-experience or identity as social actors changes from having been *created* (before the threshold) to being a *co-creator* (after the threshold).

Principle 4: Uncovering Common Will

A common will is formed and accessed when a group uncovers the various layers of their present reality, and develops a shared image and felt sense of the future that wants to emerge. The process of uncovering and accessing common will includes more than just "visioning." Common will evolves only *after* the process of unearthing the various layers of current and emerging realities. In agriculture, the success of the sowing season is not only a function of the seeds used, but of the preparation of the soil. In the same way, the success of will-formation is not only a function of vision, but of first passing through the layers of present and emergent realities which then becomes the container for intuiting the future that wants to emerge. To paraphrase Clausewitz (1989), who claimed that war was the continuation of politics by other means, we can say that the formation of will is the continuation of awareness by other means.

Principle 5: Self

William O'Brien, the former CEO of the Hanover Insurance Company and now founding partner of Generon (formerly the Centre for Generative Leadership), summarizes his key learning with the following sentence: "The success of an intervention depends on the interior condition of the intervenor." In other words, the success of a tangible move in a particular situation depends on the intangible "interior condition" of the intervenor. The capacity to create the appropriate interior condition is becoming one of the most significant topics for future research and practice.

What is the source that allows us to perform this fundamental shift of will? There is only one such source, says O`Brien: love. Not love as an emotional phenomenon, but love as a property of will, as the capacity "to help others to

complete themselves." (O`Brien) In this sense, we have found that the most important tool for leading transformational change is one's Self, and the capacity of one's self to transcend its own boundaries.

Closure

This set of emerging principles summarizes the learning experience that the consulting or support team in this organization-wide change process considered their most important . It might become a supplement to the Organizational Learning Pentagon for future work in this field.

Our case began immediately following a restructuring (merger) and a discontinued reengineering process, and subsequently focused on changing the mental models and on mobilizing company-wide energies. The impulse of the innovation described above started in the center of the organization when the top executives realized the challenges they were up against. The impulse for change continued to expand into the rest of the organization long after the general manager who had originally initiated the changes left the company. Today, the company is in the midst of yet another mega-merger and is thus engaged in the next round of turmoil and change.

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