CHAPTER 5

STRATEGIC LEADERSHIP, ORGANIZATIONAL LEARNING, AND NETWORK TIES

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ABSTRACT

First and second order learning lie at the center of an organization's ability to exploit its core competencies or explore for new opportunities. Strategic leadership lies at the center of this learning process. Strategic leaders enable organizations to learn by telling stories about what the organization is, what the organization does, and what the organization can become. They also enable competence carriers to come together to solve current and future problems by networking. These processes are explored.

> History matters. It matters not just because we can learn from the past, but because the present and the future are connected to the past by the continuity of a society's institutions.
>
> Douglas C. North (1991, p. vii)

In the life trajectory of any organization, there are important strategic inflection points (SIPs) (Burgelman & Grove, 1996). These SIPs are caused by changes in fundamental industry dynamics, technologies, and strategies that

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create opportunities for strategic leaders to develop new visions, create new strategies, and move their organizations in new directions as they traverse through the turbulence and uncertainty. Developing the organization's capacity to learn from its past, adapt to its present, and envision and create the future will become increasingly important. Since a firm's competitive advantage lies in its ability to create, re/combine, and transfer-knowledge efficiently within the context of its competitive environment, collective knowledge offers the most competitive advantage due to the difficultly of imitation by other firms. At the same time, it is the most difficult to learn (Kogut & Zander, 1992; Zhao, Anand, & Mitchell, 2004). The very complexity, non-codifiability, and tacitness of collective knowledge require opportunities for frequent interaction, dialogue, and feedback. Senge (1990) argues that if strategic leaders are going to take on the roles of designers, stewards, and teachers, they must value learning and become experts at learning in the context of their organization.

This paper focuses on the impact of strategic leadership and the leader's role in the development of intra- and inter-organizational network ties on the organization's ability to learn and adapt. Strategic leadership is differentially important in the past, the present, and the future of the organization both directly and indirectly through their impact on single-loop, double-loop learning and the development and use of network ties.

Strategic leadership lies at the heart of organizational learning and adaptation. This is shown in Fig. 1.

To appreciate the ways in which strategic leadership impacts organizations, it is useful to discuss organizations as complex social learning systems. This and the nature of organizational learning are discussed before proceeding to a discussion of leadership and organizational network ties. This paper concludes with a series of summary statements.

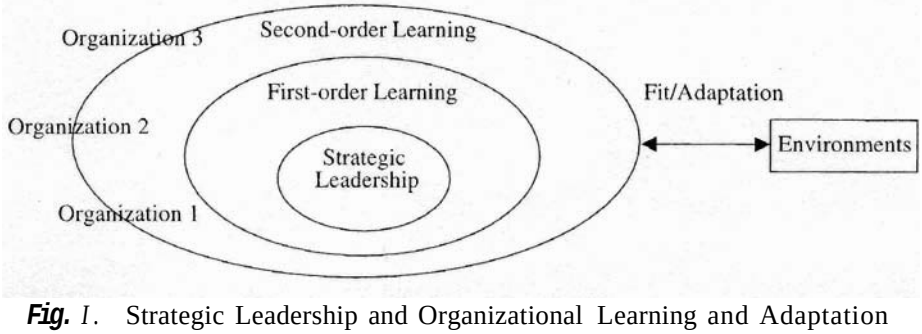

***Fig.** 1.* Strategic Leadership and Organizational Learning and Adaptation

ORGANIZATIONS AS COMPLEX KNOWLEDGE AND LEARNING SYSTEMS

Organizations are social learning systems. "In a social learning system, competence is historically and socially defined ... Knowing, therefore, is a matter of displaying competencies defined in social communities ... Socially defined competence is always in interplay with our experience. It is in this interplay that learning takes place" (Wenger, 2003, p. 77). These competencies allow actors to modify their ways of thinking or acting when dealing with changing environments. Take for example, Ken Chenalut, CEO of American Express. His capacity to learn enabled him to handle the crisis of September 11, 2001, in which he moved 3,000 people from AE's headquarters at Ground Zero to New Jersey.

Organizational knowledge consists of the organization's stock of skills and beliefs (Spender & Grant, 1996). It is useful to differentiate between four distinguishable, but co-equal forms of knowledge: individual level versus group level knowledge and explicit versus non-codifiable tacit knowledge (Cook & Brown, 1999). Implicit knowledge at the group level is the firm's collective knowledge (Zhao et al., 2004).

Knowledge and learning are distributed throughout the organization in a nexus of networks. Within this nexus of networks, strategic leaders, serve as network brokers (Burt, 1992). Strategic leaders have a unique ability to change or reinforce existing action patterns. Strategic leaders must be responsible for bringing competence carriers together within and across the firm's domain. In doing so, they provide the mechanisms by which organizations encourage, support, and sustain innovation and knowledge creation. Ken Lewis, Chairman and CEO of Bank of America, says that one of the ways talent is developed is through communication and dialogue. He says, "We meet on a quarterly basis as a group to identify the specific need at the various levels, to talk about success stories and failures, and to talk about the process for change where change is necessary" (Lewis, 2002).

By interacting with a wide range of networks, inside and outside the boundaries of the firm, competence carriers are encouraged to bring new solutions to old problems as well as discover new problems to which known or knowable solutions can be applied. This increases not only the store of knowledge and procedural memory, but transactive memory as well. Procedural memory refers to an understanding and mastery of the organization's rules/routines. Transactive memory refers to an awareness of the range of knowledge available and who possesses it. The availability and

access to divergent information is crucial to solving complex problems. Organizational creativity is related to the leader's personal networking behavior or the encouragement of subordinates' networking (Amabile, Schatzel, Moneta, & Kramer St., 2004; Shalley & Gilson, 2004). As Heinrich von Pierer, CEO of Siemens AG says, "Having a global workforce of well-trained, highly skilled people obviously isn't enough: The workforce must be efficiently networked and leveraged to maximize benefits across the company" (von Pierer, 2002).

A major problem in the transfer of knowledge or learning, be it intra-organizational or inter-organizational, is the stickiness of knowledge. Some attribute the stickiness of knowledge to its characteristics, e.g., its codifiability and its complexity (e.g., Kogut & Zander, 1992). I assume the difficulties in transferring learning are a function of the processes and situation, as much as they are the characteristics of the knowledge to be transferred. In other words, it is not necessarily the characteristics of the knowledge to be learned that makes it sticky, it is the context in which it is embedded (Rerup, 2004). A second major problem lies in creating and enlarging the organization's procedural and transactive memories. The greater the number of people in an organization that share both procedural and transactive memories, the more the organization can be said to know.

Four problems emerge in the transfer of knowledge:

(1) People who need information do not know who possesses it, and those who possess it do not know who needs it. This is a problem of structural holes where there are no direct or indirect links connecting the nodes within the organization's network, thus inhibiting the development of the organization's transactive memory.
(2) Owing to lack of incentives, there is no motivation to share on the part of the possessor or motivation to learn on the part of the acquirer. This occurs when incentives are split or when internal capital markets are organized as tournaments with the winner taking all. Both cases promote competition and conflict, which undermines the sharing of information, reduces performance (Johnson & Johnson, 1989), and also inhibits the development of transactive memory.
(3) There is an incorrect understanding about the sources of cause and effect and thus poor transfer, which leads to the development of incorrect procedural memory.
(4) Either there is an incorrect understanding about the cause and effect relationship by the target, or there is a desire by the target to modify and imprint their identity on the solution. This results in poor replication of

> the organization's procedural memory. Thus, strategic leaders must recognize that learning and knowledge transfer involves both the capacity and the desire of people to do things. Steve Kerr, former chief information officer for General Electric (GE) illustrates this point in his interview with Larry Greiner. "If, for example, at GE you want to cross-market, and the commission is going to be $110,000, who gets it? Well, is it 80/20% or 70/30%? or 50/50%? The result is fighting, and bickering. I remember Welch saying, "Here's what we're going to do. If the commission is $110,000, if two departments or two people share it, they each get $110,000. In one swoop you get a tremendous incentive to cross-market" (Greiner, 2002, p. 347).

In addition, strategic leaders must recognize that the transfer of knowledge involves standing on the shoulders of giants because those who worked hard generally made many mistakes and suffered, but learned from these mistakes. Thus to successfully learn from others takes a degree of humility and discipline. For example, Great Harvest forces its franchisees to sign an agreement to follow everything to the tiniest letter for a year, and when Intel reproduces a semiconductor factory, it forces the engineers to replicate every single detail even to the extent of putting in doors that lead nowhere (Rerup, 2004).

One important role the strategic leader can play in the development of the organization's procedural and transactive memories as well as the facilitation of creative problem solving is that of providing access to and encouraging the sharing of knowledge and information: Knowledge about our history, knowledge about issues confronting the organization in real time, and knowledge about possible futures. Under Jack Welch, the Crotonville training facility of GE grew in its offerings and had, over the course of a year, more than 10,000 managers and customers attending sessions. Jack Welch himself taught a course on Leadership and Values seven times a year to high-potential middle managers. In addition, courses were taught by the vice-chairman and the CFO. In fact, corporate leaders taught 60% of the senior-level courses, with Welch often standing in front of the group. Before Welch retired, GE had created a Crotonville-Europe and a Crotonville-Asia (Greiner, 2002). In the same way, Celestica has courses "in which our top 200 to 300 leaders across the company spend time with the top four executives, including me [Polistuk, Chairman and CEO], engaged in strategic brainstorming not unlike Jack Welch's bear pits" (Polistuk, 2002).

Learning depends upon actual and potential connections between knowledge elements. Knowledge is embedded in an interconnected network of

other pieces of knowledge. Changes in parts of the knowledge structure trigger changes in other related or similar parts. Learning thus depends upon establishing connections between prior knowledge and new knowledge (March, Schulz, & Zhou, 2000). Below, we will elaborate on organizational learning and change in general and the role strategic leadership and organizational ties play in addressing the specific issues outlined above.

ORGANIZATIONAL LEARNING

It has long been held that change is necessary and beneficial if organizations are to remain effective (Child, 1972; Fox-Wolfgramm, Boal, & Hunt, 1998; Hannan & Freeman, 1977; Meyer, Brooks, & Goes, 1990; Meyer, Goes, & Brooks,1994). This is based upon the assumption that organizational growth and survival is dependent upon maintaining a "fit" between the organization and its environment (Summer et al., 1990). Thus, survival, learning, and change go hand in hand. This perspective emphasizes the benefits of adaptability and flexibility. But survival and effectiveness also require maintaining a balance between flexibility and stability (Brown & Eisenhardt, 1998). Without stability, a firm would not be able to accumulate knowledge, and would be in a constant state of flux never being able to move any distance from a random state because improvement would vaporize at every new fad.

Learning and change are based upon either exploitation of core competencies or exploration for new opportunities (March, 1991). It is in the exploitation of core competencies that firms maintain their trajectory and identity thus achieving stability in the mists of change (Fox-Wolfgramm et al., 1998). It is in the exploration for new opportunities that firms overcome the related problems of competency traps, core rigidities, or the Icarus Paradox (Levitt & March, 1988; Leonard-Barton, 1992; Miller, 1990). Recall how the initial success of Icarus led him, in his hubris, to fly higher and higher towards the sun until his wax wings melted and he plunged to his doom. Exploitation without exploration can lead to specialization and excess, to confidence and contentment, to dogma and ritual, to death. The ability of a firm to avoid the seduction of success and change, while maintaining performance, is a function of both its capacity to change and its ability to learn (Black & Boal, 1996; Boal & Hooijberg, 2000). Learning is the focus here.

The organizational learning cycle can be described as a four-stage closed loop in which individual beliefs lead to individual action, which results in

organizational action followed by environmental responses. Feedback from these environmental responses influences individual beliefs and aspirations, which trigger future action (Schulz, 2002). The philosopher Santana is often quoted as saying that those who fail to learn the lessons of history are doomed to repeat its errors. While it is traditionally assumed that learning is intentionally adaptive, under conditions of ambiguity, experience can be misleading and interpretations are problematic (March & Olsen, 1975). Prior learning, especially those lessons encoded in rules or routines often prevent new learning or the learning of the wrong things making improvement problematic (Schulz, 2002; Wooten & James, 2004). In Chapter 6, Ichijo points out that Sony could not let go of its cathode ray tube (CRT) technology in making televisions, while Sharp, Samsung, and LG Electronics forged ahead producing liquid crystal display (LCD) televisions. Innovations usually come from marginal players in an industry due to the industry leaders' inability to unlearn (Leblebici, Salancik, Copay, & King, 1991).

Beliefs, trust, and perceptions, and not detached data and analysis, determine what happens under conditions of ambiguity (March & Olsen, 1975). Often, to avoid crises, organizations must first unlearn the lessons of history lest they apply them when they are no longer appropriate (Nystrom & Starbuck, 1984). For example, even during the oil embargo, American automobile manufactures first needed to unlearn the lesson that American's would only buy big cars and that there was no profit potential in trying to sell small cars. Volkswagen, Nissan, and Toyota taught the Americans that there was a large, profitable market in smaller cars. Or consider Wal-Mart's misadventure in Germany where it failed to understand the differences between the US and German suppliers, customers, and regulators. More recently, Ford Motor, which like GM, had a difficult time in transitioning from large, rear-wheel drive cars, to smaller, front-wheel drive cars, has again demonstrated myopic vision. For the past 10 years, they have been fighting the notion of global warming. As a result, they did not aggressively pursue hybrid technologies. With the recent rise in the cost of petroleum, they have been forced to purchase the technology from Toyota in order to enter the hybrid automotive market.

The organizational ability to identify, assimilate, and exploit knowledge from external sources reflects the organization's "absorptive capacity" (Cohen & Levinthal, 1990). The ability to learn involves not only the capacity to recognize new information, assimilate it, and apply it toward new ends but that it involves processes used offensively and defensively to improve the fit between the organization and its environments. It is a continuous genesis of

creation and recreation where gestalts and logical structures are added or deleted from memory (Piaget, 1968). However, sometimes, these processes only require adjustments within an existing behavioral repertoire. Occasionally, they may require modifications of the interpretative system and the development of new combinations of responses. At other times, they may require the restructuring of the meta-level system that selects and interprets stimuli within a Weltanschauung that provides the worldview in which the situation is defined (Boal & Hooijberg, 2000). Learning can result in organizational changes in purpose (know-why), changes in meaning (know-what), and changes in methods (know-how) (Garud, 1997). Such changes in world views can be seen in IBM's actions to reinvent itself from a PC maker into a seller of business solutions, or Erickson's decision to become the end-to-end wireless solution provider, not just the provider of handsets.

Since knowledge and learning are distributed throughout the organization, absorptive capacity occurs at both the individual and organizational level. A key aspect of absorptive capacity is the procession and development of procedural and transactive memories (Wegner, 1987; Liang, Moreland, & Argote, 1995). Strategic leaders can enhance collective learning and the development and use of the organization's procedural and transactive memories by promoting intra- and extra-organizational dialogue. "Knowledge management depends upon social interaction not computerized information systems" (Greiner, 2002, p. 349). People are "docile." That is, they have a tendency to depend upon suggestions, recommendations, persuasion, and information obtained through social channels (Simon, 1993). Docility contributes to the effectiveness of individuals because the information received is typically better than the information individuals could gather independently. Dialogue aids in surfacing one's own and other's thoughts and assumptions and helps create new ideas and initiate collective action. As Jeff Pfeffer (2002) of the Stanford Graduate School of Business says, "Knowledge management is not about intranets and Lotus notes and all the stuff around technology. It's about having an organization in which people are both encouraged and have the time to talk to each other".

Because strategic leaders are central in the cognitive networks of organizations, they will have the most influence on promoting and interpreting the exchange of information and advice. The giving and receiving of information and advice from one's social network forces the individual to think about the issues they are facing in ways that they would not if the information and advice was not offered (Augier & Sarasvathy, 2004). For example, at one of his sessions at Crotonville, the class told Jack Welch that his favorite mantra of "first or second in market share, or fix, sell, or close"

was now dysfunctional because the closer you get to 100%, the lower the upside. As a result of this dialogue, Welch changed his approach and at strategy meetings, he started asking people to answer the question, "Imagine your market share is less than 5%. Describe your market" (Greiner, 2002, p. 345).

Learning occurs whenever an organization achieves what it intended or when a mismatch between intentions and outcomes are identified and corrected. When performance falls short of aspirations, behavioral adjustment intensifies, and it subsides when performance exceeds aspirations. Single-loop learning occurs whenever an error is detected and corrected without questioning or altering the underlying values of the system. Double-loop learning occurs when mismatches are corrected by examining and altering first the preferred states that organizations seek to satisfy and then the actions (Argyris & Schon, 1978). Single-loop learning tends to result in organizational convergence, while double-loop learning tends to result in organizational reorientation. Most organizational learning and change is based upon single-loop learning. However, processes that initiate single-loop learning can also result in double-loop learning (Lant & Mezias, 1992). Organizations learn not only from their own experience but also from the experience of other organizations (Huber, 1991; Levitt & March, 1988). Thus, organizations learn from both their intra- and inter-organizational networks. Learning occurs by connecting people, problems, and/or solutions. Communication, interdependence, knowledge sharing routines, and complementary resources or capabilities all affect knowledge transfer (Lane, Koka, & Pathak, 2002). Moving or modifying people, technology, or structure are alternative mechanisms by which organizations learn and knowledge is transferred (Argote, 1999). However, learning requires stability in relationships (Argote, 2005). ABB learned how difficult it was to transform itself into a transnational organization. Capital One Financial Corporation, on the other hand, now uses social network analysis to maintain links between people with similar jobs after it went through reorganization along product lines. Solvay, the Belgian pharmaceutical and chemical company, uses maps derived from network analysis to help with leadership transitions. Such network analysis helps spark ideas when people go outside their traditional networks. Seeing where the lines of collaboration are missing can help managers find opportunities for growth or help identify key players you do not want to lose post merger.

Problems trigger learning (Cyert & March, 1963). When organizations encounter problems, they initiate a search for solutions, adopt solutions that solve the problem, and retain good solutions for future use.

Repeated encounters with similar problems provide motivation for the organization to develop standardized responses. These standardized responses are often encoded in the form of organizational routines or rules (Levitt & March, 1988; March et al., 2000). Over time, rule/routine makers become more competent at recognizing problems and developing rules/routines to respond to them. At the same time, rule/routine users become more competent at using the rules/routines. Thus, there results an interconnected web of rules/routines. In this way, the organization's procedural memory is developed. In stable environments, this enhances the ability of the organization to exploit its core competencies. Nevertheless, in unstable environments, the dominance of rules/routines can inhibit double-loop learning and exploration (March et al., 2000). Rules/routines capture explicit knowledge about know-who and know-how. However, because routines and rules appeared as disembodied imprints of history, they are not sufficient for understanding. They fail to capture the know-why. It is stories that make history available and help organizations learn from their past. Stories capture informal learning, and as such, are the "soft" repositories of knowledge (Brown & Duguid, 1991). A powerful way of making outsiders feel like insiders and imparting tacit knowledge or its emotional component is through the telling of stories. Stories help link the past to the present and the present to the future. Stories help participants to see continuity in the face of change and make the radical seem more doable.

Gregory Berry (2001) notes, "Stories are a fundamental way through which we understand the world ... By understanding the stories of organizations, we can claim partial understanding of the reasons behind visible behavior" (p. 59). As such, the exchange of stories, rather than merely routines, results in a social learning system that allows participants to develop a new "collective story." Stories are thus an important part of organizational learning. Routines and rules capture only a limited part of explicit knowledge. They do not capture the past and how the organization got there, and they do not capture tacit knowledge or the emotional component of knowledge.

The power of stories can be seen in the experience of the Australasian firm Amcor. In one year, five "new" changes were simultaneously implemented. The changes ranged from work flow and safety changes to new gain share incentive programs to new adding a new shift and changing from a 5-day, 8-hour shift, 3-shift arrangement to a 12-hour, 4-day-01114-day-off shift system. Joline Francoueur and Darl Kolb, the consultants on the change projects, on the second day of a two-day experiential-learning-based organizational development program, asked the longest serving worker to

describe what Amcor was like upon first joining the company. Next, the second longest serving worker was asked the same question. This went on until all of the 30+ participants had told their story. The stories were full of humor and laughter and very few were bitter or full of complaint. The upshot of telling their stories was to connect older workers with younger ones, and the discovery that the "new" was, in fact not "new" at all. Participants discovered that while the proposed changes were not identical to previous ones, they were no more radical than ones the organization and many of those present had successfully lived through. In fact, the telling of stories enhanced the status of senior participants relative to that of their junior managers because they had literally "been there, done that." The result was that by telling their stories, the participants gained a perspective about the proposed changes and this reduced their resistance to change (Kolb, 2003). As Jan Bouwen and Bert Overlaet say, in their retelling of the takeover of a Belgian multinational pharmaceutical company, "There is no continuity without an appreciation of the past. People will experience continuity when they can recognize the past in their present actions and intentions for the future" (Bouwen & Overlaet, 2001, p. 34).

ORGANIZATIONAL NETWORKS

Collective learning is influenced by distributed initiative and cooperation. Collective learning requires constant experimentation and heedful interrelating (Weick, 1965; Weick & Roberts, 1993). However, while everybody wants to learn, nobody wants to fail. Thus, collective learning requires a willingness to encourage the tolerance of small failures (Sitkin, 1992). Collective learning occurs when leaders encourage plausible judgment, active listening, information exchange, and working consensus (Weick, Sutcliffe, & Obstfeld, 1999). Collective learning also requires discipline, stretch, trust, and support. Strategic leaders do this by setting clear performance standards, providing fast feedback, promoting open communications, shared ambition, collective identity, and by linking the individual's work and the organization's priorities thus giving meaning to the individual's work (Ghoshal & Barlett, 1994). In studying work teams at Johnson and Johnson, Black and Boal (1996) found that teams that were high in discipline, stretch, trust, and support were able to change work systems and technology while maintaining a high level of performance while teams that were not could not.

Strategic leaders are responsible for creating the context within which collective learning can occur. Because strategic leaders are in unique

positions to act to enhance employees' access to knowledge, resources, networks, and learning strategies, strategic leaders play a pivotal role in the creation and use of intra- and inter-organizational network ties. Learning and the transfer of knowledge about the know-what, the know-how, and the know-why of organizational life requires interaction among network ties. The type of ties in a network of firms plays a major role in promoting single-loop and double-loop organizational learning. Four types of network ties have been identified: cohesive, bridging, strong, and weak (Gulati, Dialdin, & Wang, 2002). Cohesive ties connect a focal firm with another firm that is also connected with at least one other partner of the focal firm. Bridging ties connect a focal firm with another firm that is not connected with a partner of the focal firm. Strong ties connect the focal firm and another firm with which the focal firm has intensive interactions. Finally, weak ties consist of the focal firm and another firm with which the focal firm only has very few interactions. While strong ties tend to be cohesive and weak ties tend to be bridging, that is not necessarily always the case (Burt, 1992; McEvily & Zaheer, 1999).

Cohesive ties reduce transaction and coordination costs through social norms and sanctions that facilitate trust and cooperative exchange. In cohesive ties, trust emerges from the firm's embeddedness in a social network beyond the dyad. To the extent that people only act on information they trust, cohesive ties promote action, and thus learning by doing. However, cohesive ties may prevent firms from obtaining new non-redundant information. Thus, cohesive ties promote single-loop and exploitative learning.

Bridging ties connect the focal firm and the bridging partner and thus two disparate networks and two unrelated sets of information. Bridging ties provide information and control benefits for the focal firm in the form of access, timing, and referral to information and learning opportunities (Gulati & Singh, 1998). Thus, bridging ties promote double-loop learning and exploration. However, firms often worry about technology leakage, especially with the use of outside suppliers, thus they may choose to produce important technologies in house. When they do so, co-location of related technologies and production systems can serve as the source of new ideas and dialogue necessary for learning (see Chapter 6).

Strong ties promote trust and reciprocity and facilitate the transfer of private information and critical resources. Trust emerges from the intensive interaction with the dyad (Gulati et al., 2002). The intensive interaction in strong ties facilitates the acquisition and interpretation of tacit knowledge (Hansen, 1999). To the extent that repetition promotes retention in long-term memory, strong ties enhance procedural and transactive memory.

Strong ties also promote the transfer of tacit knowledge (Zhao et al., 2004). However, a firm with many strong ties and few weak ties trades with a confined set of partners and may seal itself off from the market. As a consequence, it will receive less new information about opportunities in the market. This results in single-loop learning and inhibits exploration.

Weak ties provide new information from sources with whom the focal firm does not frequently interact. However, weak ties are best at facilitating explicit knowledge (Hansen, 1999). Weak ties reveal opportunities in the market and may also reduce resource dependence on strong partners, thus promoting exploration.

The importance of bridging and weak ties can be seen in the story of GE's adoption of Six Sigma. Many people now associate Six Sigma with GE just as they do Workout and Best Practices. Collectively these programs focus on efficiency, knowledge, and quality. What most people do not know is that initially Welch was hesitant to implement Six Sigma because he felt it was just not GE. However, on the day the decision was to be made at Crotonville, Welch was absent. In his place, Larry Bossidy (then CEO of Allied Signal) spoke at Crotonville about Six Sigma. According to Steve Kerr, Chief Learning Officer at GE, Bossidy got everyone so excited that by the time Welch returned, he could not stop it. On the other hand, Workout resulted from Welch's conversations with Jim Baughman from Harvard, and demand-flow technology resulted from Welch's contact with customers (Greiner, 2002).

STRATEGIC LEADERSHIP, NETWORKS, AND LEARNING

Boal (2004) has described strategic leadership as:

> … a series of decisions and activities, both process-oriented and substantive in nature, through which, over time, the past, the present, and the future of the organization coalesce.

In the past tense, strategic leaders should focus on developing strong and cohesive ties to reinforce existing values, identities, and belief systems. The result is single-loop learning that seeks to exploit and build on its history.

In the present tense, under conditions of stability, strategic leadership should focus on developing strong and cohesive ties for organizational members to promote procedural and transactive memories. This will reinforce single-loop and exploitative learning. However, at the same time,

strategic leaders should seek to promote weak and bridging ties to raise aspiration levels and to encourage double-loop and exploration learning.

Under crises, strategic leaders need to act. However, since past behavior is self-reinforcing, search behavior is likely to be localized during crises. The result is to reinforce single-loop and exploitative learning. During a crisis, the presence of strong ties may also seal off the organization from new sources of information, again reinforcing single-loop learning. While the crisis may abate, what is often needed is double-loop learning and explorations. Therefore, in these cases, strategic leadership needs to challenge existing causal maps and strategies, as well as develop and promote weak and bridging ties to provide new information to encourage double-loop learning and exploration. Katsuhiko Machida's decision in 1998 to upgrade all televisions sold by Sharp in the domestic market to flat-screen LCD technology by 2005 forced Sharp to rethink and reinvent the technologies, systems, and processes involved in producing televisions (see Chapter 6).

The future tense also requires the strategic leader to build and promote both weak and bridging ties. By doing so, the strategic leader raises the aspiration level of the organization, and encourages the use of new sources of information. But the future tense requires a strategic leader who can envision an unknown future. As by Citing George Bernard Shaw, Edward Kennedy eulogized his brother Robert Kennedy. "Some men see things as they are and say, why; I dream things that never were and say, why not" (Kennedy, 1968, p. 53). In the future tense, the strategic leader is aided by both weak and bridging ties aid. The vision of the leader raises the aspiration level of the organization, and weak and bridging ties serve as sources of new information. As such, the possibility for double-loop learning and exploration is greatest.

CONCLUSION

By focusing on the organization, strategic leaders are constantly faced with reaffirming *who we* are, deciding on what *we do* and envisioning *where do we want to go.* Doing so requires strategic leaders to articulate the organization's values, beliefs, and identity, as well as strike a balance among the organization's core competencies to exploit the present while at the same time encouraging organizational learning to explore both knowable and unknown futures. Thus, strategic leadership is concerned with connecting the past, the present, and the future of the organization to ensure continuity in the face of competition and evolution. In doing so, strategic leaders can

influence the organization directly through their charismatic and transformational behavior, or indirectly by encouraging the creation, orchestrating, and/or serving as the hub of intra- and extra-organizational networks through which organizations learn and transfer knowledge.

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