**Understanding Lessons of Organizational Learning and Transformational Change**

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Current research efforts ignore the potential of capacities (Ulrich and Lake; 1991) to link complementary research in the areas of transformational change and organizational learning. Organizations are able to undertake effective restructuring precisely because they possess change generating capacities enacted through efforts to learn

In recent years, a powerful phenomenon has swept the economic, social, and organizational worlds. This phenomenon, which has been devastating and frightening to some and exhilarating to others is the occurrence of various forms of restructuring. Whether due to forces of globalization, automation, the rising importance of information, the entry of new competitors into new or established markets, or the inability to compete, restructuring has taken one of three forms:

(1) portfolio restructuring involving significant change in a firm's configuration of its lines of business through acquisition and divestiture transactions (Bowman & Singh, 1993);

(2) financial restructuring involving the infusion of large amounts of debt (Bowman & Singh, 1993); or

(3) organizational restructuring comprising restructuring, repositioning, and revitalizing defined as changes to a firm's components and interrelationship's, markets served, and style of operations, respectively (Kimberly & Quinn, 1984).

Increasingly, research into the third form of restructuring, organizational restructuring, has taken on a greater amount of urgency through its link to the occurrence of a second powerful but somewhat paradoxical phenomena. This is the rise of the continual improvement imperative. A casual review of most business publications reveals a fixation by corporations, public sector organizations and not-for-profits with the idea of constant betterment or innovation. Simply changing is not sufficient. Organizations now seek to continually learn and foster learning in both their employees and the methods by which they conduct their affairs.

Organizational theorists are responding to the phenomena of organizational restructuring and continual improvement through research into organizational change and organizational learning, respectively. Many of the approaches and findings in these two areas are complementary. However, little effort has been made at synthesis. The purpose of this paper is to fill this gap by providing a more encompassing and beneficial synthesis of some aspects of the organizational change and organizational learning literatures.

In the paper, the terms "transformation," "transformational change," "archetypical change," and "movement between archetypes" are used interchangeably with the term "second order change". Also, the term "capacity" is used synonomously with "capability." The main argument is that for second order change to be successful, learning must occur. Learning allows specific organizational capacities to generate transformational change. Learning, as such, directs large-scale change.

A number of tasks are accomplished in the paper. Our understanding of the terms "large scale organizational change" and "organizational learning" are clarified. These two concepts are then linked through the use of a third concept, "organizational capacity."  The main points of the paper are then summarized and a number of suggestions for further research provided.

## Theory Development

Within the field of organization theory, a common understanding is that two primary types of change occur within organizations.  One, involving high complexity, is termed second order or transformational change.  A second variant, of lesser complexity, is known as first order change.  First order change is composed of those improvements and adjustments that do not change the organization's core and which occur naturally as the organization grows and develops (Levy & Merry, 1986).  Small scale and occurring within an archetype, it is typically incremental, quantitatively measurable, and easily managed or normal (Miller & Friesen, 1984; Greenwood & Hinings, 1993; Quinn, 1981; Kimberly, 1987).  Its defining property is that it makes sense within existing frameworks or interpretive schemes that are already understood and shared within the organization (Ranson, Hinings, & Greenwood, 1980; Bartunek, 1993).

Second order transformational change involves multidimensional, multilevel and radical organizational upheaval (Levy & Merry, 1986; Miller & Friesen, 1984; Tushman & Romanelli, 1985; Greenwood & Hinings, 1993; Gersick, 1991).  Although some researchers have sought to differentiate second order change by types (e.g. Miller & Friesen, 1984),  in essence, a transformation is the  emergence of a new and previously unknown state (to that particular organization), out of the remains of the old state.  Changes occur to organizing structures and strategies but most importantly to interpretive schemes, schemata, core beliefs, world views, or paradigms (Ranson, Hinings & Greenwood, 1980; Greenwood & Hinings, 1993; Bartunek, 1993; Tushman & Romanelli, 1985; Gersick, 1991).  A common occurrence is the lack of a clear understanding by participants of the final look or feel of the organization and its design.

Research regarding organizational change demonstrates three points relevant for this paper.  First, there is an emerging consensus among researchers, that large mature and bureaucratic organizations experience short bursts of intense, discontinuous, second order change, or upheaval of strategy and design, followed by longer periods of convergent, incremental, first order change (Miller & Friesen, 1984; Tushman & Romanelli, 1985; Gersick, 1991; Mezias & Glynn, 1993; Greenwood & Hinings, 1993).  This is the idea of punctuated equilibrium.  Second, "the notions of `convergence' and `upheaval' imply both the idea of archetypes and a definition of second order change as movement between archetypes" (Greenwood & Hinings, 1993: 1053).  An archetype is a set of structures and systems given coherence and meaning by an underlying interpretive scheme (Greenwood & Hinings, 1993). From this point of view organizational structures and management systems are best understood by a holistic analysis of overall patterns (Miller & Friesen, 1984; Greenwood & Hinings, 1993; Meyer, Tsui, & Hinings, 1993).  Third, movement from one archetype to another or the occurrence of second order change, is infrequent and difficult (March, 1991; Greenwood & Hinings, 1993; Mezias & Glynn, 1993).

## Organizational learning

No commonly accepted definition of the term organizational learning has evolved (Fiol & Lyles, 1985).  Learning may be described as single loop, permitting the organization to carry out its present policies or achieve its present objectives.  Or it may be of the double loop variety,

involving the modification of underlying norms, policies, and objectives (Argyris & Schon, 1978). Learning may also differ by organizational level (Fiol & Lyles, 1985) or occur by encoding inferences from history into routines that guide behaviour (Leavitt & March, 1988). A further description of learning involves groups of people giving the same response to different stimuli (Weick, 1991).

These represent but a sampling of existing descriptions. This variety has led one scholar to suggest that research into organizational learning has entered a phase fraught with increasing confusion and conceptual fragmentation (Lundberg, 1989). Our aim is not to attempt an all encompassing literature review; others have effectively accomplished that task (Fiol & Lyles, 1985; Levitt & March, 1988; Lundberg, 1989; Huber, 1991; Barnett, 1994). Rather, our purpose is to distinguish between the nature of organizational learning in first and second order change. In order to do so however, it is necessary to arrive at some form of coherent understanding of the term. Barnett (1994) provides a useful means to accomplish this. As a result of a citation count Barnett (1994) suggests the existence of at least four major theoretical approaches. These view:

(1) organizations as programs of action (Cyert & March, 1963; March & Olsen, 1979; Levitt & March, 1988);
(2) organizations as information processors (Huber, 1991);
(3) organizations as learning and unlearning systems (Hedberg, 1981); and,
(4) organizing as assumption sharing (Argyris & Schon, 1978).

Each of these approaches provides unique insights but some aid our understanding of large scale transformations better than others. This idea of linking concepts of learning with those of change is not new. Some researchers argue that large scale change involves learning as either a necessary part of the change process or as the fundamental source of all change (Mohrman, Ledford, & Mohrman, 1989; Nadler & Tushman, 1989). Researchers have historically linked single and double loop learning to first and second order change (Levy & Merry, 1986). However, we attempt to move beyond this rather simple comparison by providing a more encompassing synthesis of the two literatures, focusing specifically on second order change. Our argument is that a transformation occurs when an organization moves from one archetype to another. Such a movement involves alterations to the existing interpretive schemes or underlying organizational values (Greenwood & Hinings, 1993). An underlying theme is that theories of organizational learning which address underlying values and beliefs will be more effective in directing second order change than learning perspectives which do not. (We address this point in more detail further on in the paper).

Of the four organizational learning perspectives outlined by Barnett (1994), two are particularly useful, namely those associated with Argyris and Schon (1978) and Hedberg (1981). The former views learning processually where organizations detect error or anomaly, correct it by altering underlying organizational norms and assumptions and then encode and embed these corrections into organizational maps and images. Hedberg's (1981) style of learning is also processual whereby organizational members, through environmental interaction, acquire and process information in order to increase their understanding of reality. By observing the results of their own actions, organizations learn. By discarding knowledge obtained through these means, organizations unlearn and in turn construct new environmental responses and mental maps or worldviews. Important for our arguments, both of these models specifically address changes to organizational values and beliefs.

Work viewing organizations as programs of action (Cyert & March, 1963; March & Olsen, 1979; Levitt & March, 1988) and as information processing systems (Huber, 1991) is explanatory in nature emphasizing organizations primarily as routines or decision making behaviours, respectively (Barnett, 1994). Huber (1991) suggests that learning occurs when organizations acquire knowledge and process information that is useful, changing the range of their potential behaviours. Levitt and March (1988) argue that learning is a routine based, history dependent, and target oriented process whereby subunits encode inferences from history into routines that guide behaviour. This model originates in March's earlier thinking whereby learning was viewed as, either:

(a) a process by which organizations adapt their behaviour in terms of their experience under conditions of ambiguity (March & Olsen, 1976); or,

(b) an adaptive process based on experience, through which organizations respond to environmental changes by readjusting their goals, attention rules, and search rules (Cyert & March, 1963).

By ignoring underlying interpretive schemes and beliefs, these theories serve a more useful role in understanding the dynamics of first order change, falling short in explaining movement between archetypes (second order change).

## Linking Change and Learning

Beyond the simple connection with values and beliefs, researchers are still faced with the task of linking the important insights from these two literatures. We see the concept of organizational capacity as a way of doing this. Organizational capacity is the skill or ability of an organization to accomplish its aims in a certain domain and also to have the means of putting into practice those skills or abilities. According to Greenwood, Hinings, Cooper and Brown (1997):

"change is enabled by the capabilities and competencies of actors. Enabling change involves both behavioral skills and experience, such as leadership and knowledge of change processes; and technical skills and experience, such as knowledge and experience with alternative ways of organizing." (Hinings & Greenwood, 1988; Greenwood and Hinings, 1996).

In short, capacity has both leadership and expertise dimensions. Because of the focus of this paper on the relationship between second order change and learning, leadership capacity refers to transformational skills where a leader is "one who commits people to action, converts followers into leaders, and who may convert leaders into moral agents (Tichy & Ulrich, 1984). Capacity of this nature has been cited by numerous researchers as important to the understanding of change, especially change involving values and beliefs (Kanter, 1983; Tichy & Ulrich, 1984; Schein, 1986; Hinings & Greenwood, 1988; Nadler & Tushman, 1989; Stopford & Baden-Fuller, 1990). Leadership, as a transformative capacity has both an external and internal aspect to it. External leadership involves keeping in touch with what is happening in the organizational environment and translating that into necessary action for the organization. Internal leadership, which has been the major focus of conceptualizing leadership, involves building shared visions, strategies and organizational implementation.

Expertise forms of capacity have also recently attracted the attention of scholars. Greenwood and Hinings (1996) assert the need for expertise in the design of an alternative

archetype.  Child and Smith (1987) make use of the concept while examining the market for the transfer of design concepts and technical knowledge required to effect the transformation of a firm's products, processes or organizational mode.  Examining technologies, Garud and Nayyar (1994) conceptualize transformative capacity as a change enabler, referring to it as "the ability to choose technologies, maintain them over time and reactivate and synthesize them with ongoing technology development" (p. 372).

Capacities also play a role in organizational learning (Dodgson, 1993).  Prahalad and Hamel (1990) suggest that competitiveness in the 1990's will stem from a firm's ability to nurture its core competences through collective learning.  They suggest core competencies are brought about by communication, involvement and a deep commitment to work across organizational boundaries, organization of work, delivery of value, and harmonization of technology. According to Pavitt (1991) capacity arises from firm specific, cumulative, and differentiated technology development. In the view of Teece, Pisano, and Schuen (1990) firm specific capabilities comprise mechanisms which allow the accumulation and dissipation of new skills and forces which limit their rate and duration. Cohen and Levinthal (1990) discuss absorptive capacity or the ability of an organization to recognize and exploit technological opportunities from outside the firm (p.367).    Studying successful corporate rejuvenation in British manufacturing firms, Stopford and Baden-Fuller (1990) found that "trial and error and experimentation were crucial in working out the details as new capabilities were developed to create new possibilities" (p.400). Introducing the leadership dimension, Ulrich, Von Glinow, and Jick, (1993) suggest that learning capability represent the ability of managers to generate and generalize ideas with impact.

The two dimensions of capacity, leadership and expertise, serve to synthesize work on organizational change and organizational learning. Ulrich and Lake's (1990) work on change capacities is a useful perspective.  The importance of their work can be seen in the context of Chrysler Corporation.  Chrysler set out as its main restructuring goal, to reduce the amount of time it took to produce a high quality car model from scratch.  Its ability to do this, reducing the cycle time of all organizational activities (Ulrich & Lake, 1990: 283) was the indicator of its capacity to change. And this restructuring, through time reduction, involved <u>leadership</u> capability, in particular as team leaders galvanized the commitment and activities of others, and <u>expertise</u>, as they worked their way through both technical and social aspects of designing new processes.

Efforts seeking to understand concept of "organizational capacity" are an effective means to link research insights regarding transformation change and organizational learning. An example of research efforts in this direction, is offered by Ulrich and Lake (1990). They suggest the possession of effective organizational change capacities embody four principles:

(1) through symbiosis organizations remove boundaries between external threat and internal action;
(2) through reflexivity organizations learn from past experiences;
(3) by means of alignment, organizations integrate tasks, structures, processes, and systems at the technical, political, and cultural levels;
(4) as a result of self renewal organizations change over time.

Although incomplete, researchers need to move forward in this direction in order to unify the messy state of these two fields of research.

**Conclusion**

As we approach the millenium, few issues capture the attention of researchers, managers, and consultants as an awareness of the profound structural changes occurring around us and the need to organize effectively to deal with them. Unfortunately, terms such as "organizational change" and "learning" are becoming increasingly tired and worn. Although agreement exists at the conceptual level regarding the meaning of "large scale organizational change," the same cannot be said of "organizational learning." Further, although the literature on both topics is growing, agreement does not exist as to their operationalization.

This paper provides an alternative approach for rejuvenating these concepts. Instead of continuing on the path of concept redefinition, we suggest that research efforts should focus on building and clarifying the links between, in particular, transformational change and organizational learning. We suggest that this is best accomplished through the linking concept of capacities (Ulrich and Lake; 1991). We have argued that organizations are able to undertake effective transformational restructuring precisely because they possess change generating capacities enacted through efforts to learn. In short, learning offers a direction or focus for change efforts allowing movement between archetypes as intended. Internal capacities represent the engines of growth.

So why is this important? We believe that learning enacted organizational capacities allow necessary future change to revert to "normal" and easily managed first order incremental change. A state of continuous improvement exists when second order change is no longer necessary. Such a state also indicates a decisive break with the idea of evolution and revolution and a move towards a true "learning organization" (Senge, 1991). Our suggestion is that organizational leaders reactively or proactively undertake tumultuous, disruptive second order change so that they will not have to do so again in the future. They do so with the hope of leaving behind the seeming chaos of transformational change. Unfortunately large scale change focuses organizational energies internally at a time when global and competitive pressures are increasingly forcing firms to address external or client related issues. Ultimately, organizational leaders will seek relative stability and stability exists within managed, incrementally adjusting working environments (Quinn, 1980).

Further research might proceed along a number of lines. First, concepts such as second order or archetypical change, organizational capacity, and organizational learning need to be operationalized and empirically replicated over a series of studies. The idea of institutional or sectoral archetypes or recipes is a fruitful one in defining a baseline for understanding second order change because of the way it approaches the notion holistically through the joint interaction of interpretive schemes, structures, and systems. The concept of capacity is a relatively new one to organization theory and has affinities with ideas such as core competence (Prahalad and Hamel, 1990). So far, there is a dearth of systematic empirical research in this area. One way that individual learning might be transferred into an organization is through the building up of a capacity in a particular sphere. Through second order change efforts, such a learned capacity may arise through pursuit of the principles of symbiosis, alignment, reflexivity, and self-renewal.

Second, the existence and endurance over time of organizations which learn and are successful in their attempts to change their archetypes should be empirically established. There is a potential contradiction between the current theorizing and research findings on transformational change (Levy & Merry, 1986; Miller & Friesen, 1984; Tushman & Romanelli,

1985; Greenwood & Hinings, 1993; Gersick, 1991; Miller, 1991) and the stream of writing on the need for organizations to transform themselves (Senge, 1991; Kotter, 1994; Tichy and Devanna, 1986; Kanter, 1989). The former literature argues that second order change is difficult, risky, sometimes unnecessary, and prone to failure. The latter literature suggests that change is to be welcomed and embraced, and, if certain steps or programs are followed, will be successful (Miller, Greenwood & Hinings, 1997). It is only through the use of studies that track activities in real time, mapping actual organizational change and learning processes that we will be able to effectively study the links between change and learning.

Third, it is the concept of capacity that is central to this conceptualization of the change/learning link. More importantly, it is viewing leadership as one element of capacity that is quite distinctive, fitting with some of Meindl's (1985) strictures about not overstating the role of leadership in change. Again, much of the academic literature on change conceptualizes leadership as one element amongst a number in change as against the more practitioner- focused literature which is often relatively one dimensional in its portrayal of leadership in change. Leadership is an organizational resource. And it exists alongside expertise related resources which can be both technical and behavioral/social in makeup and origin.

In conclusion, the computerization of the workplace and the technological advances precipitating it, have permitted an alteration of contemporary institutions, corporations and other forms of organization, as never before. Further, efforts to build continual improvement into existing operations remains an area of great interest and resource expenditure. We suggest that a means to increase our understanding of this important phenomena and move forward is to link the concepts of large scale organizational change with those of organizational learning in a more concrete and meaningful manner.

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