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RELEARNING THE LEARNING ORGANIZATION: A META THEORETICAL  
ANALYSIS

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Public Administration

by

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## ABSTRACT

The learning organization (LO) is a misunderstood concept. The related literature reveals a fractured knowledge domain racked by definitional diversity, a lack of cumulative work, and polarized camps of scholars who clash over the topic's core theoretical assumptions. Consequently, the LO idea is often speciously downgraded in its importance as an atheoretical concept, a management fad, a form of hegemonic programming, idealistically naïve, and/or otherwise untenable in reality. These perceived problems are the genesis of this study, which develops a metatheoretical framework sufficiently plastic to: (1) determine the theoretical lineage of the LO construct; (2) analyze and understand more fully the current state of LO theory and practice; (3) "test" the veracity of the aforesaid criticisms; and (4) explore the LO's potential for implementation in organizations.

In effect, this dissertation seeks to "relearn" the LO, a response to the proposal by many scholars within the social sciences that "a process of unlearning" the LO take place due to its flawed assumptions about organizations and worklife. Contrary to this emerging perspective, this project embraces a different thesis, one that derives from a belief that a given construct is only as robust as the ideas that inform it, and a hunch that the LO paradigm has an evolutionary aspect to it that echoes the sum development of organization theory.

The starting point for this study is Peter Senge's conception of the LO, which is recast in this work as an ornate cloth made from manifold threads of theories and thoughts about organizations. Then, by reweaving extant strands of knowledge with new yarns of insight, a fresh understanding of the LO and the inherent difficulties of operationalizing its meaning is made possible.

This dissertation is strictly an abstract work. It makes its chief contribution by presenting a new way to understand the notion of the LO via its theoretically grounded processes of concurrent deconstruction and re-invention. This work's most important finding is that the LO idea is conceptually robust and theoretically powered; the result of an impressive scholarly pedigree that reflects the dialectical process of knowledge development within organization theory/organization studies field.

## TABLE OF CONTENTS

LIST OF FIGURES.....	ix
LIST OF TABLES.....	x
ACKNOWLEDGMENTS.....	xi
Chapter 1. INTRODUCTION.....	1
Definitional Issues.....	4
Operationalization.....	6
Lack of Theoretical Analysis.....	9
Structure, Learning And Design.....	9
Purpose.....	11
Research Methodology.....	11
Unraveling the Threads of the Learning Organization.....	13
Rationale.....	19
Organization of the Paper.....	19
Scholarly And Practical Contributions.....	22
Notes.....	25
Chapter 2. THE SYSTEMS THREAD.....	36
Origins of GST.....	37
Sociotechnical Systems Thinking.....	39
Cybernetics.....	41
Law of Requisite Variety.....	43
Environmental Texture.....	44
Organizational Adaptation and Contingency Theories.....	45
Limitations.....	49
Conceptual Concerns.....	51
Definitional Difficulties.....	55
Implications of Complexity.....	57
Summary.....	60
Notes.....	63

## TABLE OF CONTENTS (Cont.)

Chapter 3. THE HUMAN RELATIONS THREAD.....	71
Hawthorne Experiments.....	72
Human Motivation and Personal Mastery .....	73
Group Processes and Team Learning .....	76
Limitations .....	83
Personal Mastery: Assumptions and Impediments .....	84
Team Learning: Assumptions and Impediments .....	91
Summary .....	93
Notes .....	95
Chapter 4. THE CULTURE THREAD .....	105
Introduction.....	106
OC Origins and Current Popularity .....	108
Towards a Definition of Learning Culture.....	108
Evolving a Learning Culture and the Transformational Leader .....	115
An Organization-As-Culture.....	115
An Organization has Culture .....	117
Finding A Middle Ground (Leadership, Mental Models, and Shared Vision) .....	118
Limitations .....	121
Summary .....	122
Notes .....	125
Chapter 5. THE LEARNING THREAD .....	131
Introduction: Setting the Stage.....	132
Hasn't It Always Been About Learning?.....	135
The Bequest of Learning's History .....	137
Learning History's Challenge Number One .....	139
Learning History's Challenge Number Two.....	140
Barriers to Organizational Learning .....	144
LO's Consonant Partners: Constructivism and Action Research .....	148

## TABLE OF CONTENTS (Cont.)

Action Research: A Process for Collective Learning .....	149
Social Constructivism: A Theory of Team Learning.....	151
Cognitive Constructivism: A Theory of Individual Learning.....	154
Limitations .....	156
Summary .....	158
Notes .....	161
Chapter 6. THE QUALITY THREAD .....	174
Introduction.....	175
What Is Quality? The Search for an Operational Definition .....	177
What is Quality Management? A Working Definition .....	182
Historical Underpinnings and Development of QM/TQM.....	184
Ancient Beginnings.....	184
Middle Ages.....	185
Industrial Revolution .....	187
Into the Twentieth Century .....	188
Inspection.....	188
Quality Control (QC).....	189
Quality Assurance (QA) .....	191
Statistical Process Control/W. Edwards Deming.....	192
Costs of Quality/Joseph M. Juran .....	196
Total Quality Control/Armand Feigenbaum .....	197
Total Quality Control/Kaoru Ishikawa .....	198
Reliability Engineering/Department of Defense (DOD) .....	199
Zero Defects/Philip Crosby.....	201
Back to the Future: Current Status of Quality Management.....	204
Baldrige Quality Framework in a Nutshell.....	210
Baldrige, Quality Management and the Learning Organization.....	212
Limitations .....	216
Summary .....	218

## TABLE OF CONTENTS (Cont.)

Notes .....	222
Chapter 7. THE STRUCTURE THREAD.....	250
Introduction: Situating Structure.....	251
Is Structure Really Passé?.....	259
Esoterica, Exotica and Reputational Renown.....	261
Social Forces of Zeitgeist.....	262
Process Predilections .....	262
Static Images of Structure.....	263
The Lasting Legacy of Weber’s Bureaucracy .....	268
Weber’s Core Ideas.....	271
Criticisms of the Bureaucratic Model .....	276
Network Notions and the Learning Organization.....	280
Problems of Language and Meaning .....	282
Shared Ideas and Points of Intersection:	
Dimensions Of Network Organization (NO).....	284
An Enacted Systems View: Towards an Integrated View of NOs and LOs.....	288
Limitations .....	293
Summary .....	295
Notes .....	297
Chapter 8. CONCLUSIONS.....	320
The Threads of an Idea .....	321
Problem Conceptualization.....	322
Statement of Purpose .....	331
Methodology .....	332
Hypotheses.....	341
Findings.....	342
The Systems Thread.....	342
The Human Relations Thread .....	346

## TABLE OF CONTENTS (Cont.)

The Culture Thread.....	347
The Learning Thread.....	348
The Quality Thread.....	354
The Structure Thread .....	356
Conclusions.....	359
Lesson 1 .....	360
Lesson 2 .....	362
Lesson 3 .....	363
Lesson 4 .....	365
Lesson 5 .....	369
Lesson 6 .....	371
New Directions .....	372
References.....	377



## LIST OF FIGURES

Figure 1-1.	The Manifold Threads of the Learning Organization .....	15
Figure 2-1.	Unraveling the Threads of the Learning Organization (you are here) .....	36
Figure 2-2.	Wiener's Organization as an Adaptive System.....	42
Figure 3-1.	Unraveling the Threads of the Learning Organization (you are here) .....	71
Figure 3-2.	Relating Theories Of Human Motivation Based On Needs.....	74
Figure 3-3.	The Learning Organization = A System of Learning Teams.....	83
Figure 4-1.	Unraveling the Threads of the Learning Organization (you are here) .....	105
Figure 4-2.	Levels of Culture.....	113
Figure 5-1.	Unraveling the Threads of the Learning Organization (you are here) .....	131
Figure 5-2.	Learning in the Learning Organization .....	148
Figure 6-1.	Unraveling the Threads of the Learning Organization (you are here) .....	174
Figure 6-2.	Baldrige Criteria for Performance Excellence: A Systems Perspective.....	211
Figure 6-3.	Customer conceived in terms of inputs, processes, and outputs .....	229
Figure 7-1.	Unraveling the Threads of the Learning Organization (you are here) .....	250
Figure 8-1.	Manifold Threads of the Learning Organization .....	336
Figure 8-2.	Learning in the Learning Organization .....	352
Figure 8-3.	General schematic for a proposed research design .....	374

## LIST OF TABLES

Table 1-1.	Unraveling the threads of the Learning Organization .....	18
Table 2-1.	Senge’s Systems Perspective: How the Five Disciplines Derive from GST .....	48
Table 3-1.	7 Dimensions of Personal Mastery.....	86
Table 5-1.	Early Beginnings of an Intellectual Domain on Learning in Organizations: Prelude to the Learning Organization Construct .....	136
Table 6-1.	The Core Values and Concepts of the Baldrige Quality Framework .....	211
Table 6-2.	A Comparison of TQM and LO by Subsystem: Functional Differences and Similarities.....	215
Table 6-3.	TQM, QM, and TQ: Years 1999 – Present .....	225
Table 6-4.	TQM, QM, and TQ: Year 2005 - 2006 .....	225
Table 6-5.	The Dimensions of Quality .....	242
Table 7-1.	Modern/Bureaucratic versus Postmodern Organization Paradigms.....	280
Table 7-2.	What is a Network Organization? .....	292
Table 8-1.	The Five Disciplines of the Learning Organization .....	323
Table 8-2.	Observed Gaps in the LO Literature .....	334
Table 8-3.	Potential Misconceptions in the LO Literature .....	334
Table 8-4.	Unraveling the threads of the Learning Organization .....	339
Table 8-5.	Mapping Klir’s Perspective to Senge’s Five Disciplines .....	344
Table 8-6.	Characteristics of Organizational Environment .....	367

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In loving memory of my parents, Sam and Jean Myers—thank you for instilling in me a passion for learning and the imagination to dream.

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### I Made It Through The Rain By Barry Manilow

We dreamers have our ways  
Of facing rainy days  
And somehow we survive  
We keep the feelings warm  
Protect them from the storm  
Until our time arrives  
Then one day the sun appears  
And we come shining through those lonely years

I made it through the rain  
I kept my world protected  
I made it through the rain  
I kept my point of view  
I made it through the rain  
And found myself respected  
By the others who got rained on too  
And made it through

When friends are hard to find  
And life seems so unkind  
Sometimes you feel so afraid  
Just aim beyond the clouds  
And rise above the crowds  
And start your own parade  
'Cause when I chased my fears away  
That's when I knew that I could finally say

I made it through the rain  
I kept my world protected  
I made it through the rain  
I kept my point of view  
I made it through the rain  
And found myself respected  
By the others who got rained on too  
And made it through  
I made it through

## Chapter 1

### INTRODUCTION

... [O]ur society and all of its institutions are in *continuous* processes of transformation. We cannot expect new stable states that will endure for our own lifetimes.

We must learn to understand, guide, influence and manage these transformations. We must make the capacity for undertaking them integral to ourselves and to our institutions.

We must, in other words, become adept at learning. We must become able not only to transform our institutions, in response to changing situations and requirements; we must invent and develop institutions which are 'learning systems', that is to say, systems capable of bringing about their own continuing transformation (Schön, 1973: 28).

Despite a growing salience in the management literature (Betts and Holden, 2003; Edwards, 1997; Fry and Griswold, 2003; Moynihan, 2005) and its close connection to change adaption, innovation, and performance (Bennett, 1994; Edmondson and Moingeon, 1998; Garvin, 1993; Hanssen-Bauer and Snow, 1996; Kontoghiorghes et al, 2005; Mohrman and Cummings, 1989; Nevis, 1995; Senge, 1990, 1994; Sherwood, 2000; Yazdani, 2004), the concept of the learning organization (LO) is an under-appreciated idea within the domain of Public Administration (PA). Almost without exception, the corpus of work in this area refers to private sector organizations (Finger and Brand, 1999; Fry and Griswold, 2003; Kingsbury, 1999; McGrath, 2002), even though informed, reflective, effective change—i.e., learning—is an eternal, ubiquitous requirement confronting *all* organizations, regardless of their public-private persuasion (Edwards, 1997; Schön, 1973).<sup>1</sup>

The confluence of several trends during the latter part of the twentieth century has profoundly altered the world (Bell, 1973; Toffler, 1970). Against a backdrop of continuous discontinuity, paradox (Laszlo, 1994; Malhotra, 1997; Pascale, 1990; West, 1994b) and accelerated information growth (Marquardt, 1996; Shenk, 1997), the fast-paced, turbulent nature of today's dynamic and globally competitive external environment renders an organization's ability to change a pervasive concern, a requirement that has become both synonymous with learning and a prerequisite for survival (Marquardt, 1996; Montuori, 2000; Watkins and Marsick, 1993). While some may argue that not all change is learning<sup>2</sup> (Kenney, in press; Mahler, 1997), change—especially the transitional or transformative variety—and learning are co-dependent, inextricable processes wherein one cannot occur without the other (Prewitt, 2003; Weick and Westley, 1996). Because of this arrant inseparability and the ostensible linkage that it shares with survival, a system's collective capacity to learn has become a matter of strategic necessity (Shimko et al., 2000); one that is key both to build the flexibility, adaptability, speed, and responsiveness (De Geus, 1997; Gabris and Ihrke, 2003; Hendriks and Vriens, 1999; Pasmore, 1988; Senge, 1990) needed to withstand asymmetric environmental forces (Tillson et al., 2005) as well as to develop and maintain competitive advantage (Kontoghiorghes et al., 2005; Nonaka and Takeuchi, 1995) within this dynamic, ever-changing context.

Successful organizations, be they public or private, are those that can adroitly introduce change and adapt in response to pressures from their external surroundings (Kanter, 1983) –to wit, they learn. As the embodiment of and conduit for transformative and adaptive change in complex systems (Pedler et al., 1991; Prewitt, 2003), the learning

organization represents an ideal towards which every organization *should* aspire to meet the challenges of its environment (Finger and Brand, 1999).<sup>3</sup> To paraphrase King (2001:14), since there is no end to learning—the learning organization embodies a goal to be pursued, not an end state (Aik, 2005; An and Reigeluth, 2005).

However, putting such normative arguments aside, there are four major shortcomings to the learning organization concept that require resolution in order to make the idea actionable. First, there is not a clear consensus on the meaning of the learning organization (Garavan, 1997; Garvin, 1993, 2000; Kerka, 1995; Smith, 2001). Second, is the issue of practice; the learning organization has proven a hard concept to operationalize and measure (Garvin, 1993; Van Wart, 2003). This is especially true within the context of public organizations where there are some inherent impediments to adoption—e.g., an entrenched bureaucracy, multiple stakeholders, competing goals and values (Finger and Brand, 1999; Kingsbury, 1999; McGrath, 2002), and a predilection for “groping along” (Behn, 1988) and/or “muddling through” (Lindblom, 1959) –conditions that tend to favor incremental change over wholesale transformation. Third, a lack of theoretical analysis (Fenwick, 1997; Jacobs, 1995; Kerka, 1995; West, 1994a) and a paucity of cumulative work (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006) detract from its “meaningfulness, feasibility, and beneficence” (Argyris, 1999:13). Fourth, many discussions on the learning organization are non-systemic in that they do not make explicit the dynamic relationships between structure, learning and outcomes, which have important ramifications for design (Akella, 2003; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001), especially if the learning organization is to meet the lofty claims of its



proponents. This concern is no less real in the public sector, where some observers have predicted that the current wave of performance-based reforms will fail because they have occurred without making necessary changes to organizational structure, culture, and environment (Moynihan, 2005; Schick, 2001). A brief discussion regarding each of these weaknesses follows.

### *Definitional Issues*

First, definitional diversity pervades the literature. Frequently, “reverential and utopian,” discussions on the learning organization are characteristically esoteric—filled with “near mystical terminology” and “high aspiration,” but short on concrete advice and guidelines for practice (Garvin, 1993:79). Moreover, it is not uncommon to find the terms organizational learning and learning organization<sup>4</sup> used interchangeably, though they are not the same thing, thus aiding and abetting conceptual confusion rather than diminishing it (Argyris, 1999; Argyris and Schön, 1996; Dixon, 1994; Easterby-Smith et al., 1998; Edmondson and Moingeon, 1998; Finger and Brand, 1999; Leitch et al., 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Senge, 1990; Tsang, 1997; Watkins and Marsick, 1993). Notwithstanding a few shared ideas and a few common points of intersection, a general lack of correspondence between definitions and appellatives has contributed to a growing, disparate literature that makes different assumptions and focuses on a variety of different issues; problems that we will cover in more depth later in this paper. But, for now, consider the following five definitions, which are suggestive of some of the competing themes that have emerged in the literature.

- A learning organization is “an organization that is continually expanding its capacity to create its future,” through the interplay of “five disciplines”: (1) systems thinking, (2) personal mastery, (3) shared vision, (4) mental models, and (5) team learning (Senge, 1990: 14).
- A learning organization is “a non-threatening, empowering culture where leadership, management, and the workforce focus on continuously developing organizational competence” (US Army Corps of Engineers, 2003: 2).
- A learning company is an organization “that facilitates the learning of all its members and continuously transforms itself” (Pedler et al., 1991: 1).
- A learning organization is one that is “skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” (Garvin, 1993: 80).
- A learning organization is “one that learns continuously and transforms itself” (Watkins and Marsick, 1993: 8), “characterized by total employee involvement in a process of collaboratively conducted, collectively accountable change directed towards shared values or principles” (Watkins and Marsick, 1992: 118).

Like Garvin (1993: 79) and others have observed (e.g., Garavan, 1997; Kerka, 1995; Smith, 2001), what is absent from each depiction and for that matter the learning organization literature taken as a whole is “a plausible, well-grounded, actionable, easy-to-apply definition.” Also missing is a mention of the kind of structure or form needed to support continuous transformation and system improvement. While each description has a strong humanist orientation (Willcoxson, 2002) and coalesces around a very optimistic vision about what an organization might be, each one implies something different about how to do it. A clear, well-grounded definition of the learning organization is critical, without which, implementation failures will likely outnumber its successes. In order for learning to be a meaningful expression of corporate purpose (Mills and Friesen, 1992),

members of the organization must first understand what the learning organization is and what it is not (Garvin, 1993).

### *Operationalization*

Second, to merely assert “an organization must learn” is deceptively simple. In actuality, the learning organization has proven a hard concept to operationalize. Despite all the rhetoric and hoopla, it is very difficult to identify many real-life examples (Kerka, 1995; Lawrence, 1998; Smith, 2001; Symon, 2003). Moreover, few concrete studies make clear how the learning organization concept works to bring about performance improvements (Ellinger et al, 2003; Goh and Richards, 1997; Henderson, 1997; Jacobs, 1995; Kaiser and Holton, 1998) or how to set measurable improvement goals and guidelines (Garvin, 1993). This is especially true within the public sector, where a number of environmental constraints and historical considerations render the processes of promoting and managing change problematic to achieve (Finger and Brand, 1999). Among the oft-cited, *unique* difficulties that public organizations face are the following (Dahl and Lindblom, 1953; Downs, 1967; Golembiewski, 1985; Finger and Brand, 1999; Henry, 2002; Jreisat, 1997; Meier and Bohte, 2003):

1. Public organizations operate in a political and public context, which makes their functioning and management much more complex than private sector organizations.
2. Public organizations have limited control over the resources necessary to tackle key problems and tasks.
3. Public managers have less decision autonomy and flexibility than their corporate counterparts.

4. Public organizations have vague objectives and conflicting goals that are likely to result in trade-offs, concessions, and compromise.
5. Decisionmaking takes longer in the public sector.
6. Public organizations are entrenched and over bureaucratized.
7. In public organizations, weak incentive structures, such as low salaries, result in low employee morale and lead to poor organizational performance.

Although scholars of public administration have long argued that the differences between public and private sector organizations are more important than their similarities (Allison, 1991; Goodsell 1983; Jreisat, 1997; Meier and Bohte, 2003; Wilson 1989), it remains an empirical question whether or not the differences between sectors are so irreconcilable as to preclude the possibility of widespread adoption of the learning organization idea. No matter where one stands on the public-private debate, the environment objectively induces change (Henry, 2002:10). Enduring improvement demands a continuous commitment to learning, without which organizations will repeat the errors of the past (McKinney and Howard, 1998; Senge, 1990).

Nevertheless, the potential of the LO literature to help identify and correct the problems of managing for results (MFR) (Moynihan, 2005:203), the latest push in government to make it more results-oriented, remains largely unexplored.<sup>5</sup> Because scholars have yet to resolve the differences between public and private organizations (Henry, 2002; Rainey, 1997; Scott and Falcone, 1998), many government practitioners tend to disparage the use of social science theory (Peters, 2002:150) like the learning organization. Recalling from the above list that public sector organizations function in a

political and public milieu, it is not hard to foresee the difficulty of obtaining and sustaining support for a unified vision, which is such an important underpinning of the learning organization idea (Reschenthaler and Thompson, 1997).

At the same time, however, adaptive capacity is no less important in the public sector. From time immemorial public administrators have been under constant pressure to develop new techniques, structures, policies, and technologies aimed at achieving effective administration (Gabris and Ihrke, 2003: 195) and positive change.<sup>6</sup> Today, as Sussman (2004) so eloquently argues,

[Public] organizations increasingly face adaptive challenges requiring them to abandon the familiar and routine. Instead, they need to develop the capacity to harness knowledge and creativity to fashion unique responses, stimulate organizational learning and sometimes embrace transformational change (p. 1).

But, it is also a matter of historical record that the rhetoric of reform has far outweighed its actual successes (Ingraham and Moynihan, 2001; Moynihan, 2005). Ironically enough, despite the positive goals and good intentions of change agents (Gabris and Ihrke, 2003), it is widely held that most such attempts to effect reform in government either fail or yield unintended, counterproductive, antithetical outcomes (Armstrong, 1997; Caiden, 1991; Gabris and Ihrke, 2003:196; Golembiewski, 1995; Groszyk, 1996; Moynihan, 2005; Thayer, 1984).

### *Lack of Theoretical Analysis*

Third, there has been both a lack of theoretical analysis of the LO framework (Fenwick, 1997; Jacobs, 1995; Kerka, 1995; West, 1994a) as well as a paucity of

cumulative work. In effect, the field has evolved on separate tracks with not much integration between them. The literature presents the learning phenomenon as occurring at different levels of analysis (Edmondson and Moingeon, 1996), which, in turn, raises questions about the relationship between each level and at what point learning is, in fact, effective or beneficial organizational learning (Argyris, 1999; Huber, 1991; Vickers, 1965; 1972). To date there has been little attempt to link together and synthesize the sizable yet separate literatures on individual, group, and organizational learning (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006).

### *Structure, Learning and Design*

Fourth, to master change organizations must be structured to support learning, which means having the ability to use the knowledge gained from past experiences to address emerging problems. Senge (1990) and others argue that such “learning organizations” require new infrastructures, i.e., something other than the traditional hierarchy, but what does the alternative look like? Few discussions on the learning organization pay sufficient homage to the importance of structure as it relates to learning, organizational roles, and outcomes (Akella, 2003; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001) beyond a cursory comment or two.<sup>7</sup> In fact, many studies are outright non-systemic, reflecting a bias for culture and process, without attending to other equally vital factors (Finger and Brand, 1999; James, 2003; Smith, 2001). This is ironic given that systems theory is the conceptual cornerstone of the learning organization (Senge, 1990; Smith, 2001).

LO proponents tell us, for example, that the learning organization is a type of organization that is “continually expanding its capacity to create its future” (Senge, 1990). It has “a non-threatening, empowering culture” (US Army Corps of Engineers, 2003:2), which is “characterized by total employee involvement in a process of collaboratively conducted, collectively accountable change directed towards shared values or principles” (Watkins and Marsick, 1992:118). Furthermore, they advise us that the learning organization must be institutionalized through collective behavioral and structural change (Moingeon and Edmondson, 1996:17; Mahler, 1997; Shrivastava, 1983). But, on balance what does such an animal look like? Notably, there is a preoccupation with process in the LO literature that confidently assumes structure proceeds naturally therefrom, but fails to make explicit what that resultant form is or should be.<sup>8</sup>

Indeed, structure and process are inextricable. To borrow a sentiment from the prominent American architect, Frank Lloyd Wright, structure and process are an inseparable whole—they “should be one, joined in a spiritual union.”<sup>9</sup> Undeniably, the key linkage between structure and process is the social system of the enterprise—namely, the informal organization (Barnard, 1938) through which adaptation, innovation, creativity and learning (Jaw and Liu, 2003; Kanter, 1983; Mezias and Glynn, 1993; Pasmore, 1988; Tushman and O’Reilly, 1997) are possible in the face of environmental change. But, a dearth of practical guidelines makes “hardwiring” the learning organization a difficult and risky venture for the traditional organization wishing to make the transition (Lawrence, 1998). And, while some comprehensive methodologies have

started to emerge, at the present time they remain largely untested (Lawrence, 1998; Redding, 1997).

## PURPOSE

The quest for excellence in public sector organizations is a charge that holds no less than three crucial challenges for public administration: 1) To deliver ever-improving value to constituents; 2) to continually heighten overall organizational effectiveness and innovative capabilities; and 3) to persistently promote organizational and personal learning (NIST, 2001a; NIST, 2001b:1; NIST, 2006). One promising approach to meet these goals is for public organizations to become learning organizations (Kettl, 1994; Marquardt, 1996; Rosenberg, 2001; Rowley et al., 1998; Senge, 1990, 1994; Van Wart, 2003). However, before that can happen, the LO concept is in need of critical analysis to address some of the problems highlighted above, which will likely undermine any attempts at implementation within the public sector. In light of these gaps, the purpose of this dissertation is as follows:

*To develop a meta-theoretic framework for the study of learning organizations—that is, one through which we may examine the strengths and weaknesses of the learning organization construct, leading to an appreciation of the LO's potential for employment in public organizations.*

## RESEARCH METHODOLOGY

This dissertation is strictly a conceptual work. It examines the extant body of knowledge on the learning organization, along with insights from its cognate cousins, the literatures on organizational learning, quality management, and change management, to



critically analyze the four gaps identified and discussed earlier, which are reiterated here for sake of clarity:

- 1) The absence of a clear consensus on the meaning of the learning organization.
- 2) The learning organization is an ideal type that has proven very difficult to operationalize and sustain in practice, especially within the context of the public sector.
- 3) The lack of theoretical analysis and a paucity of cumulative work are detractors from its meaningfulness, effectiveness, and achievability.
- 4) Many discussions on the learning organization are non-systemic and do not make explicit the dynamic relationships between organizational subsystems and the task and general environments.

Using Senge's (1990) "five disciplines" as a point for departure and as an organizing framework, this paper will trace the historic development of the learning organization based on the areas of organization theory from which the five disciplines derive their conceptual footing.<sup>10</sup> As we will demonstrate, the learning organization paradigm<sup>11, 12</sup> has an evolutionary aspect to it that mirrors the sum development of organization theory itself. This paper will argue that the growing, disparate literature on the learning organization is a logical extension of history, and the gaps noted above reflect the growing pains of a budding knowledge domain. That learning in organizations is a complex phenomenon that defies a single definition or portrayal by just one model (Cohen and Sproull, 1991; Fiol and Lyles 1985; Garvin, 1993; Merriam and Caffarella, 1999; Popper and Lipshitz, 1998; Shani and Mitki, 2000; Watkins and Golembiewski, 2000) is a consequence of the ebb and flow of countless ideas on individual and group learning.

## *Unraveling the Threads of the Learning Organization*

The question of from *whence the learning organization comes* is an interesting one and illustrates the innate nature of intellectual evolution in the organization theory field itself. Developments in organization theory are not so much based on accumulated facts, as they are on a dominant paradigm used in any specific period in the field's advancement (Burrell and Morgan, 1979; Clegg and Hardy, 1996; Morgan, 1996; Pfeffer, 1993). Thus, each paradigm builds upon the extant body of relevant knowledge, rather than assume dominance by deposing previous theories (Shafritz and Russell, 2000). The half-life of a paradigm depends on its usefulness. In other words, once there is consensus for a particular theory, it stays in vogue until which time another, more relevant paradigm surfaces. Hence, old paradigms do not die or fade away; they become, instead, the catalysts for other ideation that may or may not agree with previous thought. This is important to keep in mind because any given construct in organization theory is the consequence of both commensurate and rival ideas. No single perspective deserves undying allegiance because each point of view has something valuable to offer and is useful in differing situations. To trace the historic roots of a particular construct in organization theory then, is to unravel a fabric woven from manifold threads of thought. In this dissertation we take on the task of unraveling the fibers of the learning organization so that we may understand what it is and how it developed.

While there is temptation to approach history in a biblical way—as a long snaking series of ‘this beget that’ –we will instead work the question of from whence the learning organization comes in reverse. A necessary first task is to define that which we intend to

untangle—the learning organization. Owing to the popularity of his extensively read book<sup>13</sup> (Bartell, 2001; Smith, 2005; Van Wart, 2003), *The Fifth Discipline*, we will use the definition of a learning organization as set forth by Peter Senge (1990); the goals and values he articulates therein will then provide the *threads to pull*, i.e., the historic roots.

In this work, Senge (1990:14) introduces to us the idea of a learning organization, which he defines as “an organization that is continually expanding its capacity to create its future.” He details at considerable length “five disciplines” that organizations must adopt to create and institutionalize a learning culture:

1. Systems Thinking.<sup>14</sup> A broad analytical framework to understand the whole rather than just the parts. Senge argues that without a grasp of systems, we can neither grow nor thrive as an organization or as an individual.
2. Personal Mastery. The ability to create desired results through an ongoing journey of self-discovery and a genuine commitment to connect learning to organizational work.
3. Shared Vision. The collective will to learn that emanates from a conviction and commitment to a common cause.
4. Mental Models. Deeply ingrained assumptions or mental images that influence how we see the world and how we act. In the learning organization, people challenge their own assumptions and views of the “current reality.”
5. Team Learning. The synergetic power of working together and cooperating with others. Team learning occurs when members of the group suspend their assumptions and engage in dialogue (Senge, 1990).

In keeping with this metaphor, we will trace the historic development of the learning organization based on the areas of organization theory from which the five disciplines described above gain their theoretical foundation. The starting assumption for

our approach conceives the learning organization as an ornate fabric woven from manifold threads of thoughts, theories, and ideas about “organizations, organization, and organizing” (Clegg and Hardy, 1996). To discover the conceptual origins of this cloth, we will unravel its fibers. In particular, we will examine Senge’s five disciplines in the context of six intertwined threads of influence that constitute the intellectual fabric of the learning organization. As shown below in Figure 1-1, these threads of influence are: (1) The Systems Thread; (2) The Human Relations Thread; (3) The Culture Thread; (4) The Learning Thread; (5) The Quality Thread; and (6) The Structure Thread.

### The Manifold Threads Of the Learning Organization

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**Figure 1-1**

The *Systems Thread* examines how *Systems Thinking*, the “fifth discipline,” informs the learning organization model. The metaphor of an organization as an open, adaptive system is a powerful influence on Senge’s (1990) conceptualization of the learning organization. This thread explores the work of a number of different theorists, whose respective contributions have grown out of the General Systems Theory (GST) movement and how this knowledge stands as the conceptual cornerstone of the learning organization (Senge, 1990; Smith, 2001).

The *Human Relations Thread* encompasses the body of work that sees the organization through the lens of individual and collective behaviors and concerns. Key themes center on group norms, motivation, leadership, empowerment, the effects of work climate on people, and organization change and development (Ott, 1996), which as a group embody the theoretical underpinnings for two disciplines, *Personal Mastery* and *Team Learning*.

The *Culture Thread* considers how the disciplinary building blocks of *Shared Vision* and *Mental Models* can make or break the learning organization. Cultural processes lie beneath and trigger much of what takes place in organizations. Today it is well understood that the culture of an organization is imperative to its performance (Alvesson, 1993). At the same time, culture is an elusive, “complex and frequently misunderstood” (Davis, 1984:1) phenomenon, which explains in part why the LO concept has been so difficult to operationalize and sustain.

The *Learning Thread* informs two disciplines, *Personal Mastery* and *Team Learning*. A survey of the literature on learning organizations reveals a wide variety of perspectives, no model consensus, and a deficiency of cumulative work (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006) –conceptual problems that undermine its meaningfulness, effectiveness, and viability. In this thread, we consider how the protracted history of the learning organization preordains the current state of the LO intellectual landscape.

The *Quality Thread* examines the development of quality management (QM) philosophy and practices, whose deeper messages are about learning (Senge, 1994) and

derive from systems thinking (Hart and Bogan, 1992; Ziegenfuss, 1993). As a result of shared values, there is a close kinship between QM and the learning organization, both in theory and execution (Garvin, 1993; Senge, 1994). An appreciation of the link between constant improvement and a commitment to learning is key for success in the current environment, without which the discovery and adoption of winning practices to secure the organization's long-term future are elusive. This thread maps to systems thinking and the LO's disciplinary manifestation of culture, *Shared Vision* and *Mental Models*.

The *Structure Thread* reviews the importance of structure as it relates to learning and outcomes (Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001). It points to the failure of traditional structures to adapt to change due to the inherent inflexibility of hierarchy. It also looks at change and adaptation as continual learning processes. Together, through the interplay of structure and process, we can conceive of a learning organization as a social-technical system—one that acts as an “enabling shell” (Rowley et al., 1998:110) for continuous improvement (NIST, 2001b), more effectual action (Drucker, 1994), and high-quality performance (Mohrman and Cummings, 1989) work. While the *Structure Thread* informs all five disciplines, its closest affinity is to Discipline 1, *Systems Thinking*.

Table 1-1 (shown below) provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

Table 1-1

**Unraveling the threads of the Learning Organization**

<b>Conceptual Threads</b>	<b>Senge's Five Disciplines</b>
A. The Systems Thread	Systems Thinking
B. The Human Relations Thread	Personal Mastery Team Learning
C. The Culture Thread	Shared Vision Mental Models
D. The Learning Thread	Personal Mastery Team Learning
E. The Quality Thread	Systems Thinking Shared Vision Mental Models
F. The Structural Thread	Systems Thinking

Predictably there is an unavoidable degree of distortion in this model because it is at once a simplification device. The philosophic boundaries of organization theory itself are not clear-cut and there is no universally accepted framework to survey and capture its intellectual terrain.<sup>15</sup> Likewise, the threads here are arbitrary; the learning disciplines together are an intellectual whole not easily disassembled into independent parts. As the essence of the learning organization, the interaction of the disciplines, not their individual actions taken separately constitute the LO's defining properties. While it is necessary at times to mention the role of individuals in learning organizations, this framework is decidedly macro—the main focus is how-why LO's behave as they do as opposed to a microperspective of organizational behavior. The disciplines, moreover, are not mutually exclusive and there is inevitable overlap because each is the product of shared assumptions about humans and organizations.

As a final point, no attempt is made in this dissertation to cover the various threads and disciplines comprehensively since each area alone could easily occupy a book! Rather the intent and focus is on a few key ideas that explain from whence the learning organization comes, in order to understand the current state of learning organization theory and practice.

## RATIONALE

The chief advantage of this approach is this: By analyzing each discipline with respect to its roots and the gaps noted above, we gain valuable insight relative to the theoretical strengths and weakness of the learning organization concept as well as a sense of its fitness for widespread adoption in public organizations. The paper's conclusions will include propositions for further research on the design and implementation of the learning organization idea within public organizations. The conclusion will also recommend additional research concerning the conceptual and practical difficulties of operationalizing the learning organization.

## ORGANIZATION OF THE PAPER

The specific plan of this paper consists of the following chapters:

*Chapter 1, Introduction*, familiarizes the reader with the topic and scope of this dissertation. It positions the problem statement in the context of current theory and practice by identifying four major shortcomings to the learning organization concept that require resolution in order to make the idea actionable.



*Chapter 2, The Systems Thread*, examines the role of systems thinking as the theoretical bedrock of the learning organization model (Senge, 1990; Smith, 2001). Senge's (1990) conceptualization of the learning organization rests heavily on a metaphor of organizations as open, adaptive systems. This chapter considers the work of a number of different theorists and how their respective contributions shape and inform the learning organization model.

*Chapter 3, The Human Relations Thread*, looks at the organization through the lens of individual and collective behaviors and concerns. Core themes focus on group norms, motivation, leadership, empowerment, work climate, and organization change and development (Ott, 1996). As a whole these foci comprise the theoretical underpinnings for two disciplines, *Personal Mastery* and *Team Learning*.

*Chapter 4, The Culture Thread*, considers how *Shared Vision* and *Mental Models* have the potential to advance or jeopardize efforts to develop learning organizations. Culture embodies the assumptions, values, and norms that distinguish a social system (Burke, 1994). As such, cultural processes underlie much of what takes place in organizations, from the ways in which people see and comprehend their surroundings to the *dos* and *don'ts* that govern their behavior (Trice and Beyer, 1993). Because culture is the embodiment of what really matters to an organization (Oden, 1999:68), many people regard culture as the "social glue" that holds the organization together (Alvesson, 1993; Golden, 1992; Smircich, 1983; Oden, 1999; Schein, 1997; Siehl, 1985). Given the vital role of culture in guiding human behavior, the evolution of a learning culture is central to the success of the learning organization.

*Chapter 5, The Learning Thread*, explores the question, “What is an organization that it should learn?” (Argyris and Schön, 1996) A review of the literature on learning organizations reveals a wide variety of perspectives, a lack of model consensus and a shortage of cumulative work (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006) –conceptual problems that subvert its relevance, effectiveness, and feasibility. In this Chapter and its subparts, we consider how history preordains the current state of the LO intellectual landscape.

*Chapter 6, The Quality Thread*, traces the development of quality management (QM) philosophy and practices, whose deeper messages are about learning (Senge, 1994) and originate from systems thinking (Hart and Bogan, 1992; Ziegenfuss, 1993). As a result of shared values, there is an affinity between QM and the learning organization, both in theory and operation (Garvin, 1993; Senge, 1994). An understanding of the link between constant improvement and a commitment to learning is imperative for success in the current environment, without which the discovery and adoption of winning practices to secure the organization’s long-term future are elusive.

*Chapter 7, The Structural Thread*, reviews the importance of structure as it relates to learning and outcomes (Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001). Opportunely, two interwoven themes that consistently surface in the organization change literature help to inform our understanding of the learning organization. The first theme addresses the adaptability issue from the vista of organizational structure. It points to the failure of traditional structures to adapt to change due to the inherent inflexibility of hierarchy and proposes

instead that organizations look to collaborative organization, strategic alliances, fishnets, webs, hubs and various other network-like arrangements. The second theme looks at change and adaptation as a continual learning process. The message here is that today more than ever before, survival of the fittest means survival of the “fittest to learn” (Marquardt, 1996); no organization will endure without learning (Hendriks and Vriens, 1999). Together, the interplay of these two areas enable us to conceive of a learning organization as a social-technical entity that acts as an “enabling shell” (Rowley et al., 1998:110) for continuous improvement (NIST, 2001b), more effectual action (Drucker, 1994), and high-quality performance (Mohrman and Cummings, 1989) work.

*Chapter 8, Conclusions*, offers some closing remarks and suggests a number of propositions for further research on the design and implementation of learning organizations.

## SCHOLARLY AND PRACTICAL CONTRIBUTIONS

This dissertation inasmuch as it is a conceptual piece will begin, or perhaps more accurately stated, recommence<sup>16</sup> a scholarly conversation and (re-) open research pathways for further work that looks at the inherent difficulties of operationalizing the meaning of learning organization within the public sector. Notwithstanding the shortcomings discussed in this introduction, the idea of a learning organization is a worthy goal that draws together the best practices for our era (Van Wart, 2003) into a holistic framework that seeks to understand the whole rather than just the parts (Senge, 1990) and reframes problems as a balancing act between competing forces, where the object is to find methods to maintain a dynamic equilibrium (Reschenthaler and

Thompson, 1997; Vrancken and Vree, 2004). Reschenthaler and Thompson (1997) suggested almost a decade ago that the learning organization concept complements the values of New Public Management (NPM)<sup>17</sup> and visa versa; working in concert these theoretical partners can induce a new way of thinking about government failure<sup>18</sup> in a manner that is more positive and from which it becomes possible to effect real change and rehabilitate the public sector. Similarly, Moynihan (2005) noted the untapped potential of the LO literature to help identify and correct the problems of managing for results. As Van Wart (2003:723) affirms, even though the challenges are steep, the goal is an admirable one to pursue.

If it is true that the “twilight of bureaucracy” (Kettl, 1994) is upon us, only a continuous commitment to learning will help avoid a reoccurrence of the errors of the past (McKinney and Howard, 1998; Senge, 1990) and allow public organizations to “thrive in a world of ever increasing change and ever shortening predictability horizons” (Pearn, 1997:11 as cited in Keep, 2000). Few would argue with the importance of learning or with the idea that it is an essential ingredient to successful organizational change (Harrington et al, 2000). Yet, notwithstanding the efficacy of this notion, the reality of the learning organization is rare (Van Wart, 2003) if it even exists at all (Kerka, 1995; Lawrence, 1998; Smith, 2001). There are intellectual and practical barriers that stand in the way of its adoption (Keep, 2000) and staying power that we must first overcome, if the concept is *not* to earn the status of an idea whose time has come and gone. The initial step in that direction is critical analysis. Only by revisiting the literature on learning organizations to thoroughly assess its strengths and weaknesses may we develop a more lucid understanding of what it is and why organizations have failed to

operationalize it; thus, leading to the development of a more cohesive, intelligible, actionable body of knowledge. The main contribution of this thesis will be the development of a meta-theoretic framework for the study of learning organizations; to wit, one through which to explore these apparent gaps and to suggest a number of propositions for further research on the design and implementation of learning organizations within the public sector.

## NOTES

<sup>1</sup> It is important to note that there is a substantial body of work on organizational learning that precedes the learning organization idea popularized by Peter Senge in 1990, with the publication of his book, *The Fifth Discipline*. Moreover, much of this “path-breaking work,” which dates back as far as 1926, hails from researchers in public administration (e.g., Collier, 1945; Simon, 1947), political science (e.g., Deutch, 1966; Lowenthal, 1972; May, 1973), education (e.g., Corey, 1953; Vygotsky, 1926 as cited in Davydov, 1990) and international relations (e.g., Etheridge, 1985; Jervis, 1976) who looked at various government, political and social institutions to study how these organizations gather data and respond to cues from their external environments (Kenney, forthcoming).

<sup>2</sup> The relationship between change and learning is an interesting yet troublesome one, because it poses an intellectual impasse. The question is this: can one occur without the other? In other words, is change a necessary condition for learning and conversely, is learning a required stipulation for change?

The answer to this query is at once problematic because it is a function of the propounder’s philosophical leanings, his or her attending assumptions, the nature and precision of the language used, and a number of contextual variances, such as the kind of change under consideration and who or what is the supposed learning target (i.e., that which learns). These complications render a trouble-free and/or definitive answer elusive to discover; an observation that garners support easily based on the proliferation of competing theories, rival ideas, and clashing commentaries that are “out there,” each in a struggle for recognition, acceptance, and domination. Just a cursory glance at the associated literatures reveals a conspicuous absence of a single overriding theory, model or set of principles to describe change or learning. This is unremarkable no doubt given the fact that neither the study of change nor the study of learning has been the sole province of any one professional group or scholarly persuasion (See chapter 5). There are possibly as many points of view as Carter has little pills!

In light of the contested, bumpy state of the intellectual landscape, perhaps the best anyone can do is agree to disagree, however unsatisfying that may be for those among us with the need to be right. Nevertheless, the array of arguments, for all their glory and diversity, are enlightening, provocative, and fascinating inasmuch as they bring to the fore some of the complexities and nuanced meanings that underpin each concept and the bond between them—namely, how change and learning relate or do not relate to one another, whatever the case may be.

According to one scholarly camp, change may be necessary for learning but change alone does not signify learning (Kenney, in press) because learning represents a deliberate effort to interpret and analyze results, which brings about some changed behavior (Mahler, 1997; Weick, 1995). Thus, for this cohort, learning always occurs at a level of conscious awareness and purposeful intent that engages the mind to collect, process, organize, and retrieve information in order to make sense out the environment and subsequently act (Dervin, 1998; Merriam and Caffarella, 1999; Weick, 1995). Given that

learning involves an explicit interplay of action and interpretation (Weick et al, 2005), does that necessarily disallow the possibility of learning as an output in a systems sense (Sessa and London, 2006) or as an adaptive response (conscious or otherwise) to some sensory input (Caine and Caine, 1994), such as an obstacle or uncertainty that gets in the way of attaining a goal (Jaques, 2001; Sessa and London, 2006)? It would seem so on the basis of the non-equivalency argument posited by this group of scholars. The inherent problem with learning as a condition of change, they argue, is that the former is “an achievement verb” (Sandelands and Drazin, 1989) –it is both means and ends, which leads to circular, tautological argumentation that obscures the dynamics of the process and the exact disposition of the outcome (Kenney, in press; Weick and Westley, 1996:441). On the basis of this point Kenney (in press) cautions that to conceptualize learning simply as an output of change is to miss the richness of the learning process.

Nevertheless, other writers on the topic are much more optimistic, such as Michael Beer (1999:127) who suggests, “Leading, changing, and learning are virtually synonymous.” For this particular scholar, change induces learning and learning induces change—to wit, “an organization does not change fundamentally without significant reorientation [change] and learning by its leaders and members” (Ibid). Equally ecumenical in their approach, Miller and Anderson (1999) adopt a broad and inclusive definition for learning: “An agent learns when experience systematically alters its behavior and/or its knowledge” (Argote, 1999; Miner and Mezias, 1996). Notably, this definition is one that allows for both “simple trial and error repetition of apparently fruitful actions” as well as “complex intellectual discovery processes” (Miller and Anderson, 1999). Similarly, Caine and Caine (1994, 1997) argue that “learning engages the entire physiology” – namely, thoughts, emotions, imagination, predispositions, et cetera—as the system interacts and exchanges information with its environment. They posit a dozen “mind-brain learning principles” that present a compelling argument in support of adopting a wide rather than restrictive definition of learning. Some of the principles more germane to this discussion include:

- Principle 1. The brain is a complex adaptive system. Its most potent feature is its capacity to function on many levels and in many ways at the same time. ... [There is a need] to come to terms with the complex, multifaceted nature of the human learner.
- Principle 2. The brain is a social brain. ... Learning is influenced by the nature of the social relationships within which people find themselves.
- Principle 3. The search for meaning is innate ... and survival oriented. ... The search for meaning ranges from the need to eat and find safety ... to an exploration of our potential and the quest for transcendence.
- Principle 7. Learning involves both focused attention and peripheral perception.
- Principle 8. Learning always involves conscious and unconscious processes (Caine and Caine, 1997).

This dissertation subscribes to the view that all living systems try to maintain themselves in a changing environment (Capra, 1997; Laszlo, 1996; Sessa and London, 2006:6). Due to constant flux in their surroundings, systems must adapt, change, develop, and evolve or they will die (Ibid). Organizations, because they are open systems, resist entropy and instead tend toward increased variety (Ashby, 1961; Chisholm, 2003; Katz and Kahn, 1978). According to Weick and Westley (1996:440), to increase variety is to learn. Thus, from a systems perspective, outside disturbances to the status quo are potential triggers for learning responses (Sessa and London, 2006). And, on the basis of the law of requisite variety (Ashby, 1961), learning responses to be effective must at a minimum be commensurate to the environmental demands that a system encounters.

This line of reasoning suggests that learning and change occur at multiple levels of incidence. In other words, since change varies learning varies, an assertion that Sessa and London (2006) explain below.

Learning ... can be adaptive, generative, and transformative. Adaptive learning is reacting to a change in the environment. Generative learning (Senge, 1990) is generating new knowledge and conditions. Transformative learning (Mezirow, 1990, 1991, 1994) is creating and applying frame-breaking ideas and bringing about radically new conditions (Sessa and London, 2006:4).

It is interesting to note that there is a parallel distinction about change in the change management literature. According to Leonard (2005) the phenomenon of organizational change occurs across three dimensions, which she describes as change, transition, and transformation.

[Simple] change is a situational phenomenon that may sometimes be temporary. Change refers to any number of newness elements, ranging from an office move to the appointment of a new CEO. Change is external and the end result of an event of intervention. Interim measures pertaining to any organizational aspect could thus also be classified as change.

Transition ... refers to alteration within the psychological realm of individuals who have to adapt to a changed environment, values, or related circumstances. This process pertains to “the hearts and minds” of employees and precedes the desired new organizational outcome in which their altered inclination toward an idea will be required. Grobler (in Verwey and Du Plooy-Cilliers, 2002:192) ... emphasizes the importance of recognizing transition as a mental state that allows employees to “let go” of old ways and then embracing a new way. [This is unlearning in a Lewinian sense.]

Transformational change differs from the other change-related concepts in terms of the following dimensions: the philosophical nature of the new vision for the organization, the required level of involvement



(commitment) from internal stakeholders and the prominence of transformation in the business environment. Transformational goals shape an organization into something “radically different” ... (Leonard, 2005:27-28).

Twenty-four years earlier, Golembiewski, Billingsley, and Yeager (1976) described this as alpha, beta, and gamma change in their seminal piece on the types of change generated by OD designs.

Given that all sorts of change and learning are possible, the primary concerns of this dissertation are nontrivial change and the types of learning that nontrivial change elicits.

<sup>3</sup> According to Michael Kenney (in press), there is a “dark side of organizational life” that LO-OL researchers largely ignore. As he points out, organizational learning is not always virtuous or civilized, such as in the case when organizational members, acting on behalf of their organizations, learn malevolent lessons and do bad things (Ibid). While this paper argues that the learning organization is an ideal form towards which every organization *should* aspire to meet the challenges of its environment, the author of this work neither denies the existence of unscrupulous people with vile agendas nor does it condone terrorist activities, drug trafficking, genocide, corporate greed, or any other anti-social behaviors that reflect learning for less than benevolent purposes. On the other hand, however, the LO-OL literature does provide theoretical and empirical evidence on the interrelationship between environments and learning, which suggest how forces of good may counterbalance the evil ones.

Given that these nefarious pressures exist, the forces for good should learn from thine enemies, in order to discover and develop effective, appropriate (legal) response strategies. Recalling the law of requisite variety (Ashby, 1961), for an organism to respond to changes in its environment, it must have within its range of possible actions one that is apposite for the conditions at hand. If no such response exists, adaptation will not occur. Hence, for good OL to prevail over bad OL, the former must devise control systems as varied and complex as those of the latter to quickly recognize, absorb, and deal with the demands they are likely to face therefrom (Morgan, 1996).

<sup>4</sup> There is a “widely recognized distinction” (Easterby-Smith et al, 1998) between learning organization (LO) and organizational learning (OL) that rallies around different literatures, appeals to different audiences, and makes use of different forms of language (Argyris, 1999; Argyris and Schön, 1996; Edmondson and Moingeon, 1998; Leitch et al., 1996; Lundberg, 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Schein, 1996; Tsang, 1997). In Chapter 5 we discuss at length the differences between the two intellectual streams. For now, however, suffice it to say that the learning organization is an integrating framework for both bodies of work where OL refers to learning by individuals and groups *within* the organization and the LO denotes learning *by* the organization as a total system (Lundberg, 1996; Tsang, 1997; Yusoff, 2005).

<sup>5</sup> Moynihan (2005) contends that the body of literature on learning in organizations can help current reforms avoid the “long and somewhat inglorious history” (Ingraham and Moynihan, 2001) of past administrative reform initiatives. Noting that the key assumption underlying MFR is one of single-loop learning (Argyris and Schön, 1978, 1996) or error correction, Moynihan (2005:203) argues that current efforts will reap disappointing results over the long-term because they do not target deep change. In order for an organization to reap long-term success, it must also be capable of double-loop learning (Argyris and Schön, 1978, 1996), which is learning that occurs from deep inquiry into the beliefs, norms, and assumptions of the organization. In the context of managing for results, this means a willingness to “revisit organizational mission, goals and strategies on a regular basis” in order to develop a broad understanding of policy choices and their consequences (Moynihan, 2005:204).

<sup>6</sup> Reinvention and reform are longstanding themes in American governance (de Lancer Julnes, 1999; de Lancer Julnes and Holzer, 2001; Bouckaert, 1992; McKinney and Howard, 1998; Russell and Waste, 1998) –themes that have persevered since the dawn of the republic (Hollings, 1996; Kahn, 2003; Light, 1997). The extent of executive power and the risks it poses for accountability have been the substance of reform initiatives for more than 200 years (Kettl, 1995). Even the contemporary call for “a government that works better and costs less,” the mantra of the reinventing government movement of the 1990s, is Jeffersonian redux, a summons from his first inaugural address that called for “wise and frugal government” (Light, 1997:15).

<sup>7</sup> This is a problem that highlights the tension and disparity between the literatures on learning organizations and organizational learning, which are not synonymous terms, and the need to bridge the gap between them. Smith (2001) notes that while proponents of learning organizations often draw their ideas from the ambit of organizational learning, there is little movement in the reverse direction.

In general, the LO literature has an action orientation to it that lays emphasis on positive change, improvement strategies, and behavioral interventions and tools targeted to promote the quality of learning processes inside organizations (Easterby-Smith and Araujo, 1999; Moynihan, 2005; Smith, 2001; Van Wart, 2003). Hence, many LO pieces have a prescriptive tone inasmuch as their authors have sought to propose heuristic devices and templates that “real organizations can emulate” or follow (Easterby-Smith and Araujo, 1999:2; Smith, 2001) in order to “perform heroic feats of adaptability” (Moynihan, 2005:214).

By contrast, the OL literature has a bias for theory that gives attention to human cognition and learning processes—both in terms of inherent barriers and the potential for coordination—within the context of organizational life (Argyris, 1999:14; Moynihan, 2005:214; Smith, 2001). Due to this “widely recognized distinction” (Easterby-Smith et al, 1998), each approach has a tendency to appeal to different readerships. While practitioner and consultant types supposedly gravitate more to the LO literature, those in the academic world purportedly show a penchant for the OL literature (Argyris, 1999; Argyris and Schön, 1996; Edmondson and Moingeon, 1998; Leitch et al., 1996;

Lundberg, 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Schein, 1996; Tsang, 1997). As many authors have observed, such differences reflect the classic tensions between theory and practice, fact and value, and/or the descriptive versus the normative (Argyris, 1999; Easterby-Smith et al., 1998; Edmondson and Moingeon, 1998; Leitch et al., 1996; Tsang, 1997).

Largely due to this chasm and a general lack of cross-fertilization between LO and OL literatures, both sides forfeit a complete understanding of learning in organizations. There is a failure to “see the forest and the trees” (Senge, 1990:127), leading to impractical, impenetrable theory that practitioners do not have the sophistication to grasp (Smith, 2005) as well as a proliferation of atheoretical, panacean interventions that fail to align and balance the structures and processes needed to facilitate learning and sustain performance (Owen et al, 2001; Weick and Westley, 1996). By “straddling both literatures” (Moynihan, 2005:214), this dissertation endeavors to illuminate how and why different systems vary in their readiness for different types of learning (March, 1991; Sessa and London, 2006).

<sup>8</sup> Sustaining the notion that structure follows process is a parallel belief that genuflects at the modernist altar of purpose. A guiding touchstone in architecture and industrial design throughout the twentieth century, the gospel of “form follows function” (FFF) provides a conscious linkage between the structure of something and its intended *raison d’être* (Wikipedia, 2006a). Likewise, FFF is a maxim that finds widespread expression in many other creative, diverse fields of endeavor, such as computer programming, fashion design, and engineering where the composition of the final product or outcome ostensibly flows from the wants, needs, and desires of the end-user.

Within the LO literature we find an analogous emphasis on the process or processes that organizations may use to enable learning and facilitate change. Concomitant to the FFF dictum is an unstated, commensurate, untested assumption that professes structure proceeds from process. Unfortunately, however, many LO writers fail to illuminate the emergent forms or kinds of frameworks best suited to buttress either the coveted learning processes or the sought-after attending outcomes associated with the learning organization paradigm (Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001). Rather, it is up to the reader to glean these insights on his or her own based on one’s prior knowledge about organizations. Sadly, this lack of explication on enabling structures calls into question both the reliability and usefulness of the research and may very well be a major contributing factor to the rare occurrence of learning organizations in real-life.

If the learning organization is to be anything more than a linguistic creation and ideal type, LO proponents must enlist a sociotechnical approach to (1) highlight the environmental forces that necessitate it; (2) reveal how the social and technical systems within organizations co-produce and co-utilize learning; and (3) draw attention to configurations that make learning possible any time and anywhere it is needed (Bartell, 2001; Oden, 1999; Pasmore, 1988).

<sup>9</sup> Although the original quotation by Wright was not about the relationship between structure and process per se, his outlook on the bond between form and function are germane to this discussion. Accordingly, as author of this work I have taken the liberty of employing literary license to paraphrase Wright in order to make a point.

On the matter of “form follows function,” Wright argued that the dictum is “misunderstood”. Function is not independent of form, as some have interpreted the statement to mean. Rather, “form and function should be one, joined in a spiritual union” (BrainyQuote.com, 2006). In the same way, structure and process are also inextricable—they are as one, “joined in a spiritual union.”

<sup>10</sup> While there are many definitions for the learning organization, each with its own special spin, we use Senge’s construct here for two reasons. First, we need a definition with clear systems overtones to support this approach. Second, Senge popularized the idea of a learning organization with his book, *The Fifth Discipline: The Art and Practice of the Learning Organization* (Bartell, 2001; Smith, 2005; Van Wart, 2003).

With the publication of this seminal book, many consultants and scholars have boarded the learning organization bandwagon. However, despite the celebrity of this idea and its burgeoning literature, it becomes quite clear as one sifts through all the printed matter that there are many misconceptions about Senge’s work, his intended audience, and where his contribution fits within the domain of knowledge. Smith (2005) submits that this work

[Is] not meant to be a definitive addition to the ‘academic’ literature of organizational learning. Peter Senge writes for practicing and aspiring managers and leaders. The concern is to identify how interventions can be made to turn organizations into ‘learning organizations.’ ... The most appropriate question in respect of this contribution would seem to be whether it fosters praxis – informed, committed action on the part of those it is aimed at? This is an especially pertinent question as Peter Senge looks to promote a more holistic vision of organizations and the lives of people within them.

Ironically, he goes on to conclude that the work is too sophisticated for the intended practitioner audience:

One of the biggest problems with Peter Senge’s approach is nothing to do with the theory, its rightness, nor the way it is presented. The issue here is that the people to whom it is addressed do not have the disposition or theoretical tools to follow it through (Smith, 2005).

An alternate explanation is that organizations lack *discipline* and remain wedded “to the quick fix” (Van Maurik, 2001 as cited in Smith, 2005). As Ackoff (1998) laments about the general state of management practice today, there are more panaceas than problems with a growing literature on their failure to boot.

Unfortunately, the problems of misuse and misunderstanding extend beyond the professional audience that Smith identifies. In general, the LO literature, which includes myriad contributions by scholars and specialists alike, reveals a lack of clarity and a good deal of dissensus on key conceptual issues. And, while most pieces on learning organizations cite *The Fifth Discipline* (see also note 13), it is no less than astonishing that “the learning organization literature largely treats the subject as if it can be practiced independently from systems thinking” (Yeo, 2005:374) –a stunning observation indeed, in light of what Senge preaches within the book! Apart from the fact that he devotes an entire discipline to systems thinking, Senge (1990) admonishes the reader that

It is vital that the five disciplines develop as an ensemble. This is challenging because it is much harder to integrate new tools than apply them separately. But the payoffs are immense (p. 12).

This dissertation, through its approach to trace the intellectual roots of the learning organization will demonstrate that the concept is at least as robust as the ideas that inform it. Moreover, the five disciplines and the theoretical influences from which they derive – i.e., the threads—provide an integrating framework with which to study the complex dynamics of adaptation, innovation, and performance within organizations (Kontoghiorghes et al, 2005; Yeo, 2005).

<sup>11</sup> Paradigm is used here in a Kuhnian<sup>12</sup> sense, to wit, as the “universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners” (Kuhn, 1962 as cited in Bounds et al., 1994:6). Thus, the phrase “learning organization paradigm” refers to the body of congruent beliefs, assumptions, and ideas that contribute to our understanding of a kind of social system theorized to “continually expand its capacity to create its future” (Senge, 1990:14).

The evolution of the learning organization is the product of changing ideas in management practice—what Kuhn called a “paradigm shift” or the condition that occurs when a preponderance of new evidence refutes existing ideas and then gives rise to new views of reality (e.g., beliefs, values, practices, methods, and tools). The dialectic process that accompanies such a paradigm shift is common in all sciences not to mention organization theory (Shafritz and Ott, 2001). As new models in organization theory usurp old ones as the dominant perspective, we can observe the advance of thinking in the field.

<sup>12</sup> Thomas Kuhn, an American physicist turned science historian, mused why 19<sup>th</sup> century scientists did not discard Newtonian theory, even in the face of the mounting evidence against it (Dunbar, 1995:21). Based on an extensive examination of the history of physics, Kuhn concluded

[Science] proceeds in fits and starts. Major new ideas eventually give rise to ... ‘scientific revolutions’ when all the active members of a discipline suddenly agree on a new approach (or ‘paradigm’). Once such a ‘paradigm shift’ has occurred, everyone settles down to a period of ... ‘normal science’ during which they probe and test the implications of the new

paradigm. The aim during this period is to determine the new paradigm's 'boundary conditions' – the limits to its applicability. Eventually the predictions made by the new theory will begin to be falsified. At first, scientists will not immediately give up the theory. Rather they will seek to defend it by invoking special *ad hoc* auxiliary hypotheses that explain why the theory should give different predictions in just those circumstances where it appears to make false predictions. But eventually the weight of falsified predictions would become so great that the theory would have to be abandoned. At this point, someone would suggest a new paradigm, a scientific revolution would occur and the whole cycle would start over again (Dunbar, 1995:21-22).

<sup>13</sup> Since its publication in 1990, more than a million copies of *The Fifth Discipline* have been sold (Smith, 2005). Moreover, in 1997, *Harvard Business Review* identified this work as one of the seminal management books of the past 75 years (Ibid.), an observation supported by a recent online search of the Social Science Citation Index Database performed on March 21, 2006. For the search parameter “cited author: Senge P,” a total of 1,191 articles were found. Narrowing the query field just to “The Fifth Discipline” uncovered 951 article titles by writers other than Peter Senge.

Judging by the query results, it appears that interest in *The Fifth Discipline* has not waned much since its initial publication in 1990, with the first 100 or so referencing articles reflecting publication dates in 2004, 2005, and 2006. It is also very interesting to note from the results screen the diverse cross-section of people that have cited this work and their chosen venues for publication. For example, perusal of the top 15 hits reveals that in 2006, authors have cited *The Fifth Discipline* in the following journals: *Organization Studies*; *Evaluation and The Health Professions*; *Professional Psychology-Research and Practice*; *Health Promotion International*; *Journal of Management Studies*; *Annals of Tourism Research*; *Journal of General Internal Medicine*; *International Journal of Technology Management*; *Qualitative Inquiry*; and *Academy of Management Review*. Given the popularity of this book and its heterogeneous readership, it is clear that people both equate Senge with the LO idea and find his insights useful, even if their purpose is to disagree.

<sup>14</sup> Systems thinking, “the fifth discipline” is the conceptual foundation of the learning organization. It is the discipline that integrates each of the others into a coherent body of theory and practice (Senge, 1990:12; Smith, 2005). Accordingly, systems thinking is the most important discipline of the five (Senge, 1990; Smith, 2005; Yeo, 2005), inasmuch as it is integrator, bedrock, and conceptual glue for the LO framework.

To set it apart from the others and to distinguish it as being of greater significance, Senge places systems thinking as the “fifth discipline” (Yeo, 2005). However, notwithstanding Senge’s intended meaning and the chosen importance that he ascribes to the fifth discipline, his anticipated message is one that apparently eludes many readers. As Yeo (2005:374) duly notes: “It is astounding that the learning organization literature treats the subject as if it can be practiced independently from systems thinking.” Even on a very

rudimentary level the patent incongruity between intent and result is quite ironic and most surprising if for no other reason than the book's given name: *The Fifth Discipline!*

Thus, heeding the call that systems thinking receive greater functional emphasis both in the literature and as a catalyst for organizational learning processes (Griffey, 1998; Rifkin and Fulop, 1997; Yeo, 2005:374), this dissertation allots systems thinking a more conspicuous leading role by giving it "top billing" in its approach. Accordingly, systems thinking is shown first in the list of disciplines that organizations must adopt to create and institutionalize a learning culture. Likewise, the Systems Thread will be first in our discussion about the threads of influence comprising the intellectual fabric of the learning organization.

<sup>15</sup> The literature is rife with a range of approaches to both classify and study organization theory. Scholarly contributions tend not to fit in tidy little boxes and therefore countless theories may span the boundaries of any particular framework. Some of the better-known approaches to grouping organization theories include chronological order; by dominant paradigm or philosophy; and by analytical dimensions (i.e., macro versus micro) (Shafritz and Ott, 1987).

<sup>16</sup> Kettl (1994) receives credit for authoring the first major essay on the efficacy of the learning organization idea within the field of public administration (Van Wart, 2003: 720). According to this noted theorist, there are four major reasons that support acceptance of the learning organization concept within the public sector: (1) the looming end of bureaucracy as we know it, due to the need for faster, more responsive, less costly (i.e., flatter) organizations; (2) increased government outsourcing and reliance on external expertise, which has caused the affected bureaus to become more like networks; (3) declining confidence in both centralized solutions and the staff tasked to oversee change management; and (4) a greater need for localized problem resolution, thanks to the speed of change, decentralization of knowledge within organizations, and customization required. Despite these ripe and enabling conditions for adoption, the learning organization has not flourished as one might hope, because of conceptual difficulties inherent to the concept itself and the innate challenges of operationalization within the public sector. It is the purpose of this dissertation to revisit the literature on learning organizations to address some of these problems as well as to propose further research on the design and implementation of learning organizations within the public sector. In the words of Van Wart (2003:723), "the challenges are steep ... but it is certainly a worthy goal."

<sup>17</sup> According to many observers, a new exemplar for public management has emerged worldwide, which purports to foster a performance-oriented culture in a less centralized public sector (Mathiasen, 1997; OECD, 1996a; Thompson, 1997; Vigoda, 2003). Called the New Public Management (NPM), its supporters say that this paradigm exhibits the following characteristics:

- A more strategic or results-oriented approach to decisionmaking;

- Decentralized management in lieu of a highly centralized hierarchical organizational structures;
- Flexibility to explore alternatives to direct public provision leading to more cost effective policy outcomes;
- The creation of competition within and between public sector organizations;
- The strengthening of strategic capacities at the center to “steer” government to respond to external changes and diverse interests quickly, flexibly, and at least cost;
- Greater accountability and transparency through requirements to report on results and their full costs; and
- Service-wide budgeting and management systems to support and encourage these activities (Holmes and Shand, 1995:555 as cited in Mathiasen, 1997:275-276).

Noting a congruency between NPM and the learning organization, Reschenthaler and Thompson (1997) propose that both are necessary to transform the public sector.

<sup>18</sup> Government failure is a catchphrase used to describe any number of outcomes related to the public sector’s inability to learn and adapt to circumstances of rapid change, such as an inability to diagnose problems early, incongruence between policy adoption and the broader public interest, not designing effective and efficient programs, et cetera (DESA, 2005; Reschenthaler and Thompson, 1997).



## Chapter 2

### THE SYSTEMS THREAD

*The Systems Thread* explores how systems thinking informs the learning organization model, as shown below in Figure 2-1. The metaphor of an organization as an open, adaptive system is a powerful influence on Senge's thinking.<sup>1</sup> Senge's construct of the learning organization employs an open systems approach to gain broader knowledge of the complex interrelationships between organizational subsystems and how they adapt to their environment. Here he is drawing on the work of a number of different theorists, whose respective contributions have grown out of the General Systems Theory (GST) movement. To establish the intellectual basis for their efforts, also the bedrock and chi<sup>2</sup> of the learning organization, we begin the discussion with a brief look at the origin of General Systems Theory.

#### Unraveling the threads of the Learning Organization<sup>3</sup>

You Are Here	Conceptual Threads	Senge's Five Disciplines
⇒	A. The Systems Thread	Systems Thinking
	B. The Human Relations Thread	Personal Mastery Team Learning
	C. The Culture Thread	Shared Vision Mental Models
	D. The Learning Thread	Personal Mastery Team Learning
	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
	F. The Structural Thread	Systems Thinking

**Figure 2-1**

## *Origins of GST*

While Ludwig Von Bertalanffy (1950) routinely receives credit for launching the General Systems Theory movement, the actual origins of GST precede his writings.<sup>4</sup> The earliest utterance of systems ideas is “as old as recorded history” (Wright, 1989; Laszlo, 1972c). Pre-Socratic scholars as far back as the sixth century BC viewed human phenomena within a “cosmic context” (Laszlo, 1972c).

Anchored in the belief that to understand humankind one must understand the world in which humans exist, early philosopher-scientists searched for an order to the universe that was “cohesive, intelligible, and controllable by thought and action” (Wright, 1989:10). Apart from the overt holistic tenor and overtones of their purposes, however, early scientific thinking was “speculative”; it lacked empirical support (Laszlo, 1972c). In turn, modern science reacted by growing up to be “empirical and specialized” (Ibid.), at the cost of bad breadth (i.e., compartmentalization) and knowledge fragmentation. Eventually GST emerged in response to the summons for a “new logic” (Angyal, 1941; Wright, 1989) to study the “Gestalten properties” that characterize living organizations (Emery, 1969). Thanks to the work of Bertalanffy and his disciples, the systems movement gained momentum and signaled “a new paradigm of contemporary scientific thought” (Laszlo, 1972a: 11).

Although not often honored as a systems theorist, it is worthy of note that the preliminary conceptual groundwork for GST is traceable to a German philosopher, Georg Wilhelm Friedrich Hegel (1770 - 1831), who proposed the following axioms years before Bertalanffy was born.

1. The whole is greater than the sum of the parts.
2. The whole determines the nature of the parts.
3. The parts are not comprehensible if considered in isolation from the whole.
4. The parts are dynamically interrelated and interdependent building blocks of the whole (Philips, 1969: 3-15; Wright 1989: 10-11).

Embodied in these ideas are the beginnings of a useful outline to study human organizations as whole entities under diverse environmental influences. According to Wright (1989), many biologists found these ideas initially useful to advance their study of living matter.

Other laudable precedents to GST were Koehler (1938) and Angyal (1941) whose writings reflect a growing dissatisfaction with closed systems thinking. The former bemoaned the failure of mechanistic approaches to study organic processes and argued instead on behalf of an open systems view. Similarly, Angyal presented a compelling statement that the core concepts used to characterize the organization of living systems required a “new logic” (Emery, 1969).

Since these early efforts, the search for dynamic principles common to all kinds of systems came into vogue and GST has since found application in many diverse fields of study. In the discipline of organization theory the impact of systems thinking has been very influential, as both a catalyst for heated debate and as a source of intellectual insight. For instance, parallel developments in other fields<sup>5</sup> have led some to suggest that the systems approach is a re-embodiment of Taylorism in that it relies too much on quantitative methods and models (Shafritz and Ott, 1987: 235) to solve complex

problems and find optimal solutions<sup>6</sup> –the famed “one best way” (Taylor, 1911). Likewise, the “power school” rejects many of the assumptions put forth by the systems school as being “naïve, unrealistic, and therefore of minimal practical value” (Shafritz and Ott, 1987: 304).<sup>7</sup> At the same time, however, a great deal of meaningful work has emerged to affirm the richness of systems thinking as a conceptual framework to study the interdependencies and interactions between organizations and their environments.

In other areas of the social sciences systems theory has played an important role in both the pursuit of learning and in its deployment for humanistic ends<sup>8</sup> (Klir, 1991; Laszlo, 1972a; Shafritz and Ott, 1987). The promise of the present-day systems movement is to bridge the age-old knowledge chasm between “descriptive and normative theory,” to bring together the “realms of fact and value” (Laszlo, 1972a: 10), and to recapture the modern era’s lost sense of “interconnectedness with the whole” (Laszlo, 1994; New Leaders Press, 1995: xi).

### *Sociotechnical Systems Thinking*

That all organizations today function in an environment characterized by unremitting change (Pasmore, 1988), is obvious perhaps to even the most casual observer. If there is one distinct situation in which a learning organization fares well, it is to help people look upon change (Senge et al, 1994: 11, 1999) as a source for innovation, creativity and learning.

The realization that the social and technical dimensions of an organization must be congruent to each other (De Greene, 1973; Ziegenfuss, 1983) and with the

surrounding environment (Pasmore, 1988) to achieve high-performance is a conceptual cornerstone of the learning organization. A major breakthrough of the General Systems Theory movement as well as the source of this insight, sociotechnical systems thinking has been a part of our intellectual topography (Barko and Pasmore, 1986) for over five decades.

Starting with the work of Eric Trist and his colleagues in the British coal mining industry (Trist and Bamforth, 1951; Trist et al., 1963), researchers from London's Tavistock Institute developed a new theory about human behavior in the work place; one that would greatly alter traditional thinking about the relationship between people and machines (Barko and Pasmore, 1986). The chance discovery of the semi-autonomous work group (Van Eijnatten, 1993) in 1949—a concatenation of participative democracy and organizational design—signified a formidable challenge to a long-held belief that there is just “one best way” to organize (Taylor, 1911). This revolutionary finding, the rediscovered “all-in method” emphasized self-directed teams, interchangeable job assignments, and group-based pay for output (Barko and Pasmore, 1986; Fox, 1990; Personnel Publications Ltd., 1996).

From this episode in the coal mine, Trist visualized a new paradigm of work that both brought together and balanced technical requirements and social needs. It was both a compelling demonstration that the technical and social aspects of an organization must be congruous to achieve the best possible output (De Greene, 1973; Ziegenfuss, 1983) as well as a powerful indication of the essence and legitimacy of organizational choice (Van Eijnatten, 1993). In this way STS theory is a stark contrast to other paradigms that place

sole importance on either the technical or social aspects of the organization (Van Eijnatten, 1993) alone, such as Taylorism (Taylor, 1911), bureaucracy (Weber, 1946), and human relations (Mayo, 1933). The learning organization as a manifestation of STS design brings together both the social piece and technical piece into one single integrated sociotechnical whole.

### *Cybernetics*

At its broadest level, the underlying theory of the learning organization encompasses a large eclectic body of ideas (Senge et al., 1994: 89) based on an open systems perspective of the organization. Such a view regards an organization as a complex set of dynamically interrelated parts—namely, inputs, processes, and feedback loops—that together engage in ongoing exchanges with the environment. To a large extent the foundation of the open systems paradigm parallels a correlate in applied science, the field of cybernetics (Buckley, 1976; De Greene, 1982; Senge et al., 1994; Shafritz and Ott, 1986).

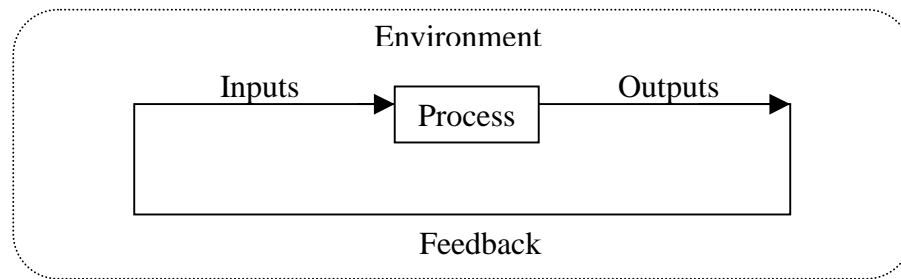
Cybernetics is a fairly new interdisciplinary science that centers on the study of information, communication, and control (Morgan, 1996: 83) in living beings and machines (Beishon and Peters, 1976: 319). Norbert Wiener (1948) coined the term in the late 1940s as a metaphoric application of the Greek word “kybernetes,” meaning “steersman,” to denote how machines and organisms maintain stability through homeostatic behaviors as they take in and process information from the external environment<sup>9</sup> (De Greene, 1982; Klir, 1991; Morgan, 1996; Shafritz and Ott, 1987). Hence, the basic concept behind cybernetics is self-regulation: 1) systems identify

problems from the environment; 2) they take corrective action to bring actual conditions into agreement with some desired state; and 3) they receive feedback to adjust themselves automatically (Shafritz and Ott, 1987: 235).

The core insight to emerge from Wiener’s work was an understanding how systems cope with the environment to achieve their purposes (Laszlo, 1972a: 10), based on a theory of feedback mechanisms (Bertalanffy, 1950; Klir, 1991; Morgan, 1996). Moreover, this theory of feedback mechanisms embodies a model of an organization as an open adaptive system (Figure 2-2) that is the foundation for all open systems.<sup>10</sup> De Greene (1982: 14) suggests “an organization cannot be adaptive without also being cybernetic.”

### Wiener’s Organization as an Adaptive System

(Adapted from Shafritz and Ott, 1987: 235)



**Figure 2-2**

The discovery that systems adapt to the surrounding environment has been a fruitful area of scholarly endeavor and theoretical development (Klir, 1991: 143). Over the years many variants on Wiener’s basic model have emerged. Much related work has taken place under the banner of artificial intelligence and in the complex technologies

arena (De Greene, 1982). Organization theorists have also found the cybernetic notions of feedback, control, and regulation useful to explain how social systems learn to adapt to change (Ackoff, 1976). Likewise, the allied field of knowledge management has built upon these ideas to develop an understanding about the way organizations create, communicate, and leverage their intellectual assets.

With its focus on complex systems of communications and information flow, the principles of modern cybernetics provide a framework to help organizations develop their learning capacities to handle the challenges of a turbulent world. Accordingly, learning organizations must develop competencies that allow them to do the following:

- Scan and anticipate change in the wider environment to detect significant variations. In cybernetic terms, this involves the reception and recognition of information.
- Develop ability to question, challenge, and change operating norms and assumptions. This gets at the heart of adaptive learning processes.
- Allow an appropriate strategic direction and pattern of organization to emerge. Implicit here, the cybernetic ideas of goal seeking behavior and adapting to change (De Greene, 1982: 123; Morgan, 1996: 90).

### *Law of Requisite Variety*

Another persuasive influence on Senge's thinking was cybernetics guru, William Ross Ashby. Ashby's (1961) ecological work on the law of requisite variety suggested that for an organism to respond to changes in its environment, it must have within its range of possible actions one that is appropriate to the conditions at hand. If no such response exists, adaptation will not occur. Therefore, the process of discovering and



developing effective response strategies to environmental stimuli—i.e., increasing requisite variety—requires that organizational learning take place (Friedlander, 1983; Garratt, 1995; Pasmore, 1988). More to the point, the principle of requisite variety has important ramifications for the design of almost every aspect of the learning organization, as Morgan (1996) notes in the following passage.

[All] elements of an organization should embody critical dimensions of the environment with which they have to deal so that they can self-organize to cope with the demands they are likely to face. ... Whether we are talking about the creation of a strategic business unit, a corporate planning group, a product development or research team, or a work group in a factory, it argues in favor of a proactive embracing of the environment in all its diversity (Morgan, 1996: 112-113).

Thus, the principle of requisite variety is an enabler for long-term survival. By building in control systems as varied and complex as the environment, a LO enhances its capacity to quickly recognize, absorb, and deal with any variations that may occur (Morgan, 1996).

### *Environmental Texture*

Emery and Trist's (1965) seminal piece, "The Causal Texture of Organizational Environments," also underscored the importance of studying organizations as open systems facing the need to adapt to environmental fluctuations. In this work they noted that the degree of environmental turbulence influences the internal operations of organizations. Following from their insights, Senge's (1990: 127) model emphasizes, "seeing the forest *and* the trees." The driving force of the learning organization is a holistic mindset: seeing a connectedness to the outside world; looking for interrelationships rather than linear cause-effect sequences; recognizing change as a

process, not a static event; and understanding dynamic complexity, not the complexity of detail (Senge, 1990: 72-73, 169).<sup>11</sup> From this way of thinking flows the possibility for both adaptive and generative learning<sup>12</sup>, which together enhances the organization's capacity to create its future.

### *Organizational Adaptation and Contingency Theories*

Other important contributors to Senge's systems perspective include work by Burns and Stalker (1961), Lawrence and Lorsch (1969), and James D. Thompson (1967). Burns and Stalker developed a theory of "mechanistic and organic systems" which emphasized the need for proper organizational adaptation to environmental contingencies. Accordingly, the mechanistic form is a traditional form of organization. It is a workable scheme for stable conditions, where reliance on formal rules, a hierarchical structure, and vertical interactions between members of the organization is possible. Therefore, the highest level of learning likely necessary to occur in the mechanistic form is single-loop learning (see note 12).

The organic form, on the other hand, is characterized by flexibility, participation, and continual task redefinition through interactions with others, consensus building, and a network structure of communication. For this reason, organic structures are capable of both generative and adaptive learning behaviors (see note 12). The two forms (i.e., mechanistic and organic) while on opposite ends of a continuum are not mutually exclusive. An organization may operate with both types of systems to satisfy conditions that oscillate between stability and change.

In view of the fact that environments have become very complex (Pasmore, 1988) and unforgiving (Hanssen-Bauer and Snow, 1996), organizations today must navigate the “non-stop whitewater”<sup>13</sup> (Vaill, 1996) of radical and random change. While survival learning is necessary it alone is not sufficient to meet the challenges posed by the present situation. Instead, the learning organization to remain afloat expects the unexpected and adapts to constantly shifting demands (i.e., contingencies). Thus, the learning organization changes in concert with its environment and is, as such, an organic system.

Lawrence and Lorsch (1969) studied the effects of uncertainty, complexity, and change on firms in three separate industries. The researchers observed that under conditions of less uncertainty and flux, successful firms showed less differentiation and integration. Under conditions of greater uncertainty and flux, firms had more highly differentiated internal structures. They concluded that successful organizations must have internal structures as complex as the environments in which they operate, a variation of Ashby’s requisite variety theory. Accordingly, Lawrence and Lorsch advocated a contingency approach to strike a balance between the competing needs for differentiation and integration (Shafritz and Ott 1987), which also is visible in the internal workings of the learning organization.

To address the texture of the external environment, the learning organization uses knowledge as both process and stock<sup>14</sup> (Davenport and Prusak, 1998). As the external environment grows more complex, the organization’s capacity to learn and its store of knowledge must expand commensurate to the problems it faces. Successful organizations are those that can match their internal knowledge to the level of environmental

complexity in which they exist. Structurally, the learning organization relies on three interior elements to meet the demands of the external environment. These include:

- A knowledge architecture, a conceptual framework for generating an ever-growing body of systematic knowledge. The knowledge architecture should act as the road map for all organizational activity.
- A knowledge management process, a formal methodology for collecting, integrating and disseminating knowledge.
- A technical infrastructure, a configuration that provides access to knowledge any time and anywhere it is needed (Oden, 1999:264-265).

Thompson (1967) endeavored to bridge the gulf between open and closed systems theories with his contingency approach to organizational rationality. Drawing on Herbert Simon's (1947) ideas about bounded rationality, Thompson advanced numerous propositions concerning how organizations use structure both to protect their core technology and to adapt to the outside world. Likewise, learning organizations also seek to change and redesign themselves, not only to survive and protect their core, but also to succeed and win in increasingly tumultuous environments. Because the only constant today is change (Rowley et al., 1998), the most reasonable response for the LO is to try to learn faster and smarter than its competitors. To not do so is to jeopardize the well being of the organization. The best defense a learning organization has is a learning offense. Long-term survival demands adaptability, responsiveness, and innovative capabilities (Edmondson and Moingeon, 1998; Marquardt, 1996) that work together to radically transform the application of learning (Gurteen, 1998) and fuel the creation of new learning (Nonaka and Takeuchi, 1995).

As a final point to summarize Senge’s systems perspective, the five disciplines of the LO paradigm loosely map to Klir’s (1972) view of general systems theory, which he describes as follows:

General systems theory is considered as a formal theory (Mesarovic, Wymore), a methodology (Ashby, Klir), a way of thinking (Bertalanffy, Churchman), a way of looking at the world (Weinberg), a search for an optimal simplification (Ashby, Weinberg), an educational tool (Boulding, Klir, Weinberg), a metalanguage (Lofgren) or prospectively a profession (Klir). (Klir, 1972: 15 as cited in Ziegenfuss, 1983: 104).

From this explanation we note the following parallels, shown below in Table 2-1.

**Table 2-1**

**Senge’s Systems Perspective: How the Five Disciplines Derive from GST**

<b>Klir:</b>	<b>Senge:</b>
– A way of thinking (Bertalanffy, Churchman)	Discipline 1 (systems thinking)* Discipline 3 (shared vision)
– A way of looking at the world (Weinberg)	Discipline 1 (systems thinking)* Discipline 4 (mental models)
– A search for optimal simplification (Ashby, Weinberg)	Discipline 1 (systems thinking)*
– A metalanguage (Lofgren)	Discipline 1 (systems thinking)* Discipline 3 (shared vision)
– A method for systems analysis (Ashby, Klir)	Discipline 1 (systems thinking)*
– A profession (Klir)	Discipline 1 (systems thinking)** Discipline 2 (personal mastery) Discipline 3 (shared vision)
– An educational tool (Boulding, Klir, Weinberg)	Discipline 1 (systems thinking)** Discipline 2 (personal mastery) Discipline 5 (team learning)

\* Systems Thinking Plays A Major Role

\*\* Systems Thinking Plays A Supporting Role

While the mapping is not precise and there is some overlap, the influence of general systems theory and its theorists is evident and all encompassing in Senge's development of the learning organization construct. Unquestionably, a systems perspective is the lifeblood of the learning organization; it is both the foundation and logic for the "essences, principles, and practices"<sup>15</sup> (Senge, 1990: 373-377) that guide and sustain each discipline.

### *Limitations*

But, alas, nothing is perfect. Given that a systems perspective is the conceptual cornerstone of the learning organization, the LO framework by associative default inherits three key problems inherent to trying to adopt this approach. First and foremost, systems thinking is hard to do. The approach is counterintuitive because it goes against our machine age proclivities for analysis and solving puzzles (Ackoff, 1981; Hall, 1994; Pidd, 1997; Ritchey, 2002). For this reason systems thinking requires that we dispense with our existing schema or mental maps, in effect "forgetting much of what we know" in order to take a new look at something of interest (Hall, 1994; Leonard, 1994; Senge, 1990). Since a system is a man-made contrivance—a way of thinking about the world and complex phenomena—its comparative strengths or weaknesses are only as good as the fit between an individual's conceptualization and reality (Leonard, 1994). In addition, because a system is an abstraction that originates in the mind of the observer who defines its features and describes its boundaries (Chisholm, 2003), systems thinking is subjective (Bar-Yam, 2000; Morgan, 2005; Weick, 1995); it is possible that different people have opposing perspectives about a particular system.

Second, there is a very specialized language with which to describe and communicate system properties and behaviors. In order to arrive at a shared understanding of the current reality and the tasks needed to change it (Dervitsiotis, 2005), users must be conversant in systems-speak, which requires that they both understand and master a very difficult vocabulary, much of which hails from information theory and the science of thermodynamics (Chisholm, 2003; Corning and Kline, 1998). Notwithstanding any claims to metaphoric license, a number of scientists bemoan the “loose and inaccurate renderings” of the Second Law of Thermodynamics employed both within the scientific literature and in disciplines outside the natural sciences (Corning and Kline, 1998). According to Corning and Kline (1998: 274), who claim to have counted about a dozen different definitions alone for the word entropy, misapplication has “only served to thicken the already dense theoretical fog.” Then, paraphrasing the Roman statesman/philosopher Seneca they conclude: “When the words are confused, the mind is also” (Ibid: 275).

Third, systems run the gamut from simple to complex, wherein the complex variety exhibits some properties not visible in the simple variety, such as nonlinearity<sup>16</sup>, uncertainty, self-organization, and the presence of many equilibria or stable states, each of which may have their own threshold<sup>17</sup> effects (Berkes et al, 2003; Jantsch, 1980; Kiel, 1994; Scheffer et al, 2001). Consequently, the linear thinking that characterizes a simple system, such as a thermostat, is just too inadequate to address the nonlinear dynamics of the world in which we live (Forrester, 1987; Kiel, 1994; Pagels, 1988). Phenomena whose causes are multiple, diverse, disparate, and uncertain requires a new understanding

of systems, one that proceeds from an assumption of change rather than stability (Berkes et al, 2003; Jantsch, 1980; Kiel, 1994; Van der Leeuw et al., 2000).

Collectively, these three issues form an unholy trinity; a triumvirate for obfuscation that can hinder or debilitate efforts to implement the learning organization, thus, fueling the flames of forbiddance identified in the first chapter:

- 1) An absence of consensus on the meaning of the learning organization. (Issues 1, 2, 3)
- 2) An inability to operationalize and cultivate the LO disciplines in actual practice. (Issues 1, 2, 3)
- 3) A lack of theoretical analysis and cumulative work to inform, support, and sustain adoption and execution. (Issues 1, 2, 3)
- 4) A failure to grasp the dynamic relationships between organizational subsystems and the task and general environments. (Issues 1, 2, 3)

The learning organization is not a panacea much to the dismay of many would-be implementers. Like the definition of a system itself, the relationship between the four LO problems and the three ST limitations constitute a complex whole not easily disassembled into parts because each has an effect on the whole and these effects are interdependent, matters that we discuss in more detail below.

### Conceptual Concerns

Given that a system is a set of interacting, interrelated, interdependent elements that together comprise a complex, purposeful whole (Ackoff, 1981), a systems perspective is one that encourages us to think holistically about something; to think in terms of wholes and wholeness, connectedness and context, to consider all aspects and



behaviors of this entity within the greater framework of the surrounding environment in which it exists, in order to gain an appreciation of the whole and its defining properties (Berkes et al, 2003; Churchman, 1968; Goede, 2005; Kramer and De Smit, 1977). Systems thinking then is the modus operandi of a systems perspective<sup>18</sup> (Kay and Foster, 1999; Leonard, 1994); its purpose is to tackle problems characterized by rapid change, multiple interests, limited resources, and irreducible complexity (Checkland, 1981; Goede, 2005; Leonard, 1994). Systems thinking, inasmuch as it is the defining essence of the learning organization, is a methodology that links philosophy and practice (Goede, 2005), thus enabling its adherents to address problems and foster positive change by understanding the “big picture” –i.e., seeing events, linkages, and patterns within the system’s larger context in a fresh and new light (Leonard, 1994; Senge, 1990).

The act of systems thinking involves two complementary, inextricably linked processes—that of analysis and synthesis—wherein the former strives to gain *knowledge* by disassembling intellectual wholes into constituent parts and the latter endeavors to yield *understanding* by combining elements together to form a coherent whole (Ackoff, 1981; Ritchey, 1991). In many ways this conjoined intellectual duo is like inhaling and exhaling—while we may discuss each separately, they are logically inseparable (Ackoff, 1981; Costanza, 2003:653; Hall, 1994; Ritchey, 1991). Given the nature of this indelible partnership, one approach is not innately superior over the other. To engage in systems thinking requires both—to wit, a “healthy balance” between these two seemingly opposite pursuits (Costanza, 2003). As one noted morphological analyst<sup>19</sup> perspicaciously suggests, analysis and synthesis go hand in hand:

Every synthesis is built upon the results of a preceding analysis, and every analysis requires a subsequent synthesis in order to verify and correct its results. In this context, to regard one method as being inherently better than the other is meaningless (Richey, 1991).

Yet despite the profundity of this insight, these complementary approaches can yield seemingly contradictory or conflicting results (Ackoff, 1984; Corning and Kline, 1998), especially as systems and their environments grow in complexity. For that reason it is incumbent upon the observer to recognize the importance of scale: as the number of subsystems increases, the need to employ a multiplicity of different perspectives increases as well (Berkes et al, 2003).

But, the complexity of system dynamics often exceeds the cognitive capacity of the human mind (Simon, 1947; Tucker et al, 2005) to discern and grasp fully the range and scope of all the intricate interrelationships and interdependencies that exist between the subsystems of an organization and its environment (Emery and Trist, 1965). Moreover, open systems thinking is a challenge for most of us due to the limiting effects of our “Machine Age” heritage and its penchant for reductionism—a belief that all reality can be broken down into indivisible elements—and determinism—a conviction that every observable fact is the effect of some single cause (Ackoff, 1981). Taken to an extreme, reductionism and determinism discount the existence of an external environment (i.e., closed systems thinking) and the possibility that anything can happen by chance or choice (Ackoff, 1981: 11), which is unconventional thinking today, especially in light of the emerging science of complexity and the recognition that nature is seldom linear and predictable (Berkes et al, 2003; Kiel, 1994). Nevertheless, entrenched habits are hard to

break. In the news and in our everyday discourse, associations are made daily between events as we seek *the* reason why this or that happened, often without regard for other intervening factors or the big picture. If there is something that we do not understand, the prevailing protocol is to analyze it, to dissect it and pick the problem apart in order to arrive at the solution. Instinctively we are puzzle-solvers and our tendency is to treat every problem as well-defined and well-structured—to wit, like a puzzle for which there is a specific solution that somebody can work out (Ackoff, 1984; Pidd, 1997; Ritchey, 2002). As Hall (1994) explains nicely in the following passage, the cost of our natural predilection for analysis is often the absence of real understanding:

For most people, analysis comes more naturally than ... synthesis. Typically, because of our number-oriented proclivities, we draw conclusions and lay our plans from reduced and compressed data. It's at this point that the traditional process of thinking and planning breaks down . . . Normally, planners don't do well in putting reduced data back into wholes or to find relationships - engaging in a higher level of meaning to seek and find understanding, thus meaning . . . Unfortunately, people learn to analyze but don't learn to apply the results of their analysis to promote the ascendancy of meaning. Typically, we analyze things in isolation, neither searching for nor understanding that through the results of analysis we could synthesize things in to wholes, gain broader meaning, and understand relationships (Hall, 1994).

Although Senge (1990: 75) argues, “every influence is both cause and effect,” his emphasis on interdependencies and interactions between organizations and their environments may be lost on some audiences (Garvin, 1993; Smith, 2005), its real meaning eclipsed by a reader's search for recipes and quick fixes, i.e., non-systemic thoughts and deeds. In contrast, genuine systems thinking requires patience because of its orientation toward the long-term view (Senge, 1990). Furthermore, systems thinking

should not be prescriptive. As a theoretical device to yield understanding and meaning, the goal of systems thinking is to “simplify as much as possible, not to make things simpler” (Corning and Kline, 1998: 281; Senge, 1990). Accordingly, analysis and synthesis are mutually imperative processes in a systems approach, a dynamic duo of sorts that enables us to describe and explain (Ackoff, 1981).

Unquestionably systems thinking is not easy and requires discipline. There are already “more panaceas than problems” (Ackoff, 1998) in the necropolis of failed management practices, due to organizational myopia and haste. If the LO framework is to avoid that same dismal destiny, aspiring implementers of the learning organization must engage in real and unabridged systems thinking, not an abbreviated, bastardized, or condensed form of it. This means taking the time and trouble to see “the forest *and* the trees” (Senge, 1990: 127); to engage in genuine, unadulterated systems thinking is to move beyond the domain of how things work, i.e., knowledge, to the realm of why things work as they do, i.e., understanding (Ackoff, 1981; Hall, 1994). In order to understand the whole, there is a need to forgo deterministic logic that seeks to uncover lone causes and answers. As the systems principle of equifinality tells us, there is more than one path to any given goal or set of goals.

### Definitional Difficulties

As noted earlier, there is a very specialized language with which to describe and communicate system properties and behaviors. Systems theory has a dense vocabulary and tool set that is difficult to penetrate (Patterson, 1993). This has given rise to “rampant confusion [and misapplication] regarding the use of key concepts” (Corning and Kline,

1998: 273), leading at times to inconsistent conclusions. Or, to borrow a sentiment from Winston Churchill, “terminological inexactitude” has been the source of much misunderstanding and error (Corning and Kline, 1998: 275).

For example, entropy is one of the great catchphrases of our time, whose meaning stands for any kind of “disorder, disorganization, uncertainty, waste, confusion, inefficiency, and even willful sabotage” (Corning and Kline, 1998: 274). Best-selling books have been written that explore the assumed philosophical, ideological, psychological, social, and economic ramifications of the Second Law of Thermodynamics (Ibid). Much to the chagrin of Corning and Kline (1998), such loose interpretation has given rise to “rampant confusion” and even contradiction.

To cite a representative example, biophysicist Rupert Riedl in a major theoretical work on *Order in Living Systems* (1978) noted that information has been defined as being ‘equivalent’ both to entropy and its antipode, negentropy (see also Brillouin, 1962; Wilson, 1968). Riedl's view of this contradiction was that both versions may be correct. His solution to this paradox was that the appropriate definition should depend on how the terms are being used and what kind of information is being referred to. The problem with this ecumenical posture, in a nutshell, is that information cannot be equivalent to two terms that are diametrically opposed to one another without corrupting the concept of information (p. 275).

While their overall point about language misuse and misconception is a valid one, the “ecumenical posture” to which Corning and Kline (1998) object is symptomatic of the pluralist world in which we live and the growing influence of postmodernism, which stresses the contextual construction of meaning and the validity of multiple perspectives (Barnett, 2000; Flax, 1990; Miller, 2002; Rosenau, 1992: 167). In many fields of human

endeavor, the Western intellectual tradition of objective reality no longer remains “the apodictic vision it once was” (Miller, 2002: 96). Nevertheless, the esoteric, “near mystical” lexis of the systems approach will likely hinder attempts to communicate, understand, and implement the learning organization framework, if one lacks either the necessary grasp of theory, the verbal tools, or disposition needed to follow it through (Garvin, 1993: 79; Smith, 2001; Smith, 2005).

### Implications of Complexity

Growing complexity impinges on our capacity to deal with change and is another issue with important ramifications for the learning organization framework. It is a matter that requires a new understanding of systems to augment past theory and knowledge. The open systems perspective, inasmuch as it is an organic model of change behavior, represents the next evolutionary step beyond the Machine Age view of the universe as orderly, stable and predictable (Jantsch, 1980; Kiel, 1994).

In contrast to Machine Age thinking, the open systems perspective is an “adaptive paradigm”, wherein incremental change, stability and equilibrium are the norms (Boulding, 1964; Kiel, 1994).<sup>20</sup> But, today there is growing consensus that we live in a highly nonlinear world that requires new conceptual framing (Forrester, 1987; Jasanoff et al, 1997; Pagels, 1988). Rather than assuming stability and accounting for change, we must instead assume change and account for stability (Berkes et al, 2003:2; Van der Leeuw et al., 2000). With the advent of the science of complexity, change and uncertainty have usurped the previous domination of the adaptive systems model and its search for

stability and order. For that reason it is incumbent upon the observer to recognize the inherent uncertainty, limiting effects, and intricate dynamics of the world around us.<sup>21</sup>

While definitions vary widely (Arthur, 1999), a complex system is one that “by design or function or both is difficult to understand and verify” (Weng, Bhalla and Iyengar, 1999: 92). What makes a system complex is a matter of its structure, size, history, topological space, relationship dynamics, and degree of nesting (Arthur, 1999; Bar-Yam, 1997; Marquet et al, 2005; Weng et al, 1999; Wikipedia, 2006c). Complexity arises when the parts of a system occur in multi-level, multi-scale structures, for which there are overlapping functions, manifold interactions, and variable, nonlinear relationships (Berkes, 2003; Kiel, 1994; Goldenfeld and Kadanoff, 1999; Kirshbaum, 2002; Rind, 1999) that constantly evolve and unfold over time (Arthur, 1999; Grzybowski and Campbell, 2004; Whitesides and Ismagilov, 1999).<sup>22</sup> As a consequence, a complex system may contain other systems or be a member some larger system or network of systems (Allen and Star, 1982; Hurst, 1995). And, since the parts of a complex system may themselves also be complex systems (Wikipedia, 2006c), the perimeter of any given one is difficult to distinguish and is ultimately a subjective affair that is up to the observer (Bar-Yam, 2000; Chisholm, 2003; Morgan, 2005; Weick, 1995). Unlike the concentricity of the rings of an onion or that of a nested set of Russian Matryoshka dolls, system boundaries are not unique (Byrne, 2001). Rather there are intersections, imbrications and interactions across and between levels, as David Byrne of the University of Durham explains.

In ‘nested systems’ boundaries are not discrete. Rather there is interpenetration of systems. The idea of interpenetration means that

systems at all levels intersect and interact. ... It is very important to note that this idea of nested inter-penetrating systems is non-hierarchical. That means that influences can flow in all possible directions (Byrne, 2001).

By way of illustration, a good example of “nested inter-penetrating systems” is the failure of the electric power grid in the northeastern United States three years ago because it draws attention to the maze of interdependencies that exist both within and among embedded complex systems (Barrett et al, 2004). Although it is uncertain what caused the power outage, some experts speculate that a lightning strike at a power plant in upstate New York caused the blackout (CNN.com, 2003). The mayhem spawned by this event illustrates the concept of nonlinearity—i.e., how a small perturbation in the ecosystem can induce disproportionate, unexpected results<sup>23</sup> (Berkes, 2003; Kiel, 1994; Wikipedia, 2006c). In particular, the failure of the power grid led to numerous cascading effects that closed down financial institutions, disturbed communications, upset public works, and halted transportation systems across dozens of cities in the eastern United States and Canada (Barrett et al, 2004; CNN.com, 2003).

Similarly, Kiel (1994) notes how public management through its labyrinth mix of changing relations, processes, and institutions can elicit big effects and unexpected outcomes. To this point he writes:

The changing relationships and amplifying nonlinear effects in the complex world of public management can impact an entire government organization. ... Consider the tragic event of the space Shuttle Challenger disaster of 1986 (Kettl, 1988). A lack of communication about the potential failure of the shuttle’s O-rings led not only to the disastrous explosion but to an erosion of confidence in NASA that still lingers today. ... The butterfly—in this case, an error in communication—generated



amplifying effects that had unexpected outcomes, posing a new set of problems for the space agency (Kiel, 1994: 7).

In sum, system complexity is a function of structure, size, history, topological space, relationship dynamics, and degree of embeddedness (Arthur, 1999; Bar-Yam, 1997; Marquet et al, 2005; Weng et al, 1999; Wikipedia, 2006c). As systems grow in complexity, so do the unintended consequences associated with nonlinearity. In other words, nonlinearity is an inherent feature of uncertainty (Berkes et al, 2003); it is that which renders complex systems neither tractable nor predictable (Gunderson, 2003; Kiel, 2004). These are important insights inasmuch as the factors that make a system complex can hinder or debilitate efforts to implement the learning organization exemplar.

From the standpoint of practice, one of the most challenging aspects of applying the learning organization framework concerns the total systems perspective that is necessary for such change (Senge, 1990). As we know from the science of complexity, scale matters because phenomena at each level tend to have their own emergent properties (Berkes et al, 2003). Thus, behavior in a social system is not simply the sum of its parts (Wikipedia, 2006c). Accordingly, the learning organization requires a new understanding of systems, one that ensues from an assumption of change rather than one of stability (Berkes et al, 2003; Jantsch, 1980; Kiel, 1994; Van der Leeuw et al., 2000).

### *Summary*

Following the methodology described in Chapter 1, the starting assumption for this dissertation conceives the learning organization as an ornate tapestry woven from

manifold threads of thoughts, theories, and ideas about “organizations, organization, and organizing” (Clegg and Hardy, 1996). To discover the conceptual origins of this cloth, we have begun the task of unraveling its fibers, starting with *The Systems Thread*.

The Systems Thread is the most important strand in the intellectual fabric of the learning organization, inasmuch as it both warp and weft of the LO cloth. In this chapter we explored how systems thinking, its intellectual roots, and the metaphor of an organization as an open, adaptive system inform the learning organization model. These ideas are a powerful influence on Senge’s (1990) conceptualization of the learning organization, which is the LO definition and framework that we have adopted in this dissertation as the target for study.

By associative default the LO framework inherits three key problems inherent to the systems approach itself: 1) systems thinking is hard to do because of our machine age proclivities for analysis; 2) systems thinking employs a dense vocabulary and tool set that is difficult to penetrate; and 3) we live in a complex, nonlinear world characterized by intricate systems that are neither tractable nor predictable. As we discovered, these three issues form an unholy alliance that can hinder or debilitate efforts to implement the learning organization because you cannot grasp and fully recognize the value of the LO framework sans a systems perspective.

In the chapter that follows, we continue our deconstruction process. Chapter 3, *The Human Relations Thread*, examines the body of work that sees the organization through the lens of individual and collective behaviors and concerns. Key themes center on group norms, motivation, leadership, empowerment, the effects of work climate on

people, and organization change and development, which together embody the theoretical underpinnings for two disciplines in Senge's LO model, *Personal Mastery* and *Team Learning*.

## NOTES

<sup>1</sup> In Chapter 1, this dissertation lays out its methodology to trace the intellectual roots of the learning organization framework:

*Using Senge's (1990) "five disciplines" as a point for departure and as an organizing framework* [emphasis added], this paper will trace the historic development of the learning organization based on the areas of organization theory from which the five disciplines derive their conceptual footing. As we will demonstrate, the learning organization paradigm has an evolutionary aspect to it that mirrors the sum development of organization theory itself. This paper will argue that the growing, disparate literature on the learning organization is a logical extension of history, and the gaps noted [in Chapter 1] reflect the growing pains of a budding knowledge domain (See Chapter 1, page 12).

To trace the historic roots of a particular construct in organization theory then, is to unravel a fabric woven from manifold threads of thought. In this dissertation we take on the task of unraveling the fibers of the learning organization so that we may understand what it is and how it developed (See Chapter 1, page 13).

A necessary first task is to define that which we intend to untangle—the learning organization. Owing to the popularity of his extensively read book (Bartell, 2001; Smith, 2005; Van Wart, 2003), *The Fifth Discipline*, we will use the definition of a learning organization as set forth by Peter Senge (1990); the goals and values he articulates therein will then provide the *threads to pull*, i.e., the historic roots (See Chapter 1, page 14).

Because this approach uses Senge's (1990) conceptualization of LO as a starting point and as an organizing framework, it is necessary to refer back to the ideas expressed by Senge in his book, *The Fifth Discipline*. The reader should not construe this in any way as a manifesto to the man or as a treatise on the work of Senge. It is more a matter of protocol, one that follows logically from the methodology presented in Chapter 1.

While the decision to use Senge's model is completely arbitrary, the supporting rationale for doing so is neither whimsical nor capricious. Rather, it rests on the incidence and frequency of citations to Senge's work in the work by other authors, both scholarly and practitioner types—hence, the assertion of "popularity" of his widely read book (Bartell, 2001; Smith, 2005; Van Wart, 2003). This observation is one that finds crude support quite easily by performing a quick-and-dirty query of the Social Science Citation Index Database. Such a search performed in March 2006 returned 1,191 articles by other authors for the search parameter, "cited author: Senge P". Narrowing the search field strictly to "The Fifth Discipline," displays 951 article titles by writers other than Peter Senge who reference Senge's work. What's more, it is interesting to note from the results

screen the diverse cross-section of people and their chosen venues for publication, demonstrated here by the first fifteen hits, which are as follows:

1. Roome N, Wijen F  
Stakeholder power and organizational learning in corporate environmental management  
ORGANIZATION STUDIES 27 (2): 235-263 FEB 2006
2. Kezar A  
Redesigning for collaboration within higher education institutions: An exploration into the developmental process  
RESEARCH IN HIGHER EDUCATION 46 (7): 831-860 NOV 2005
3. Feifer C, Ornstein SM, Jenkins RG, et al.  
The logic behind a multimethod intervention to improve adherence to clinical practice guidelines in a nationwide network of primary care practices  
EVALUATION & THE HEALTH PROFESSIONS 29 (1): 65-88 MAR 2006
4. Arredondo P, Perez P  
Historical perspectives on the multicultural guidelines and contemporary applications  
PROFESSIONAL PSYCHOLOGY-RESEARCH AND PRACTICE 37 (1): 1-5 FEB 2006
5. Dooris M  
Healthy settings: challenges to generating evidence of effectiveness  
HEALTH PROMOTION INTERNATIONAL 21 (1): 55-65 MAR 2006
6. James KT, Arroba T  
Reading and carrying - A framework for learning about emotion and emotionality in organizational systems as a core aspect of leadership development  
MANAGEMENT LEARNING 36 (3): 299-316 SEP 2005
7. Tosey P  
The hunting of the learning organization - A paradoxical journey  
MANAGEMENT LEARNING 36 (3): 335-352 SEP 2005
8. Elliott D, Smith D  
Cultural readjustment after crisis: Regulation and learning from crisis within the UK soccer industry  
JOURNAL OF MANAGEMENT STUDIES 43 (2): 289-317 MAR 2006
9. Cooper C  
Knowledge management and tourism  
ANNALS OF TOURISM RESEARCH 33 (1): 47-64 JAN 2006
10. Safran DG, Miller W, Beckman H  
Organizational dimensions of relationship-centered care - Theory,

evidence, and practice  
JOURNAL OF GENERAL INTERNAL MEDICINE 21: S9-S15 Suppl. 1  
JAN 2006

11. Allison MA, Browning S  
Competing in the Cauldron of the global economy: tools, processes, case studies, and theory supporting economic development  
INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT  
33 (2-3): 130-143 2006
12. Karkkainen H, Hallikas J  
Decision making in inter-organizational relationships: implications from systems thinking  
INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT  
33 (2-3): 144-159 2006
13. Goodall HL  
Why we must win the war on terror - Communication, narrative, and the future of national security  
QUALITATIVE INQUIRY 12 (1): 30-59 FEB 2006
14. Schlogl C  
Information and knowledge management: Dimensions and approaches  
INFORMATION RESEARCH-AN INTERNATIONAL ELECTRONIC JOURNAL 10 (4): Art. No. 235 JUL 2005
15. Durand R, Calori R  
Sameness, otherness? Enriching organizational change theories with philosophical considerations on the same and the other  
ACADEMY OF MANAGEMENT REVIEW 31 (1): 93-114 JAN 2006

What can we glean from this demonstration? Without doubt a proliferation of references to *The Fifth Discipline* is not indicative of a Senge love-fest. Ubiquity is surely not a guarantee of consensus. However, it does imply a certain awareness of Senge as well as suggest his association with a particular idea. Accordingly, the reader should keep in mind that the purpose of this exercise was to show the pervasiveness of Senge's LO conceptualization in published literature and to provide the rationale for using his model in this dissertation as a starting point and organizing framework.

<sup>2</sup> Chi as it is used here means lifeblood or life force and therefore should not be confused with the chi-square test, chi-square distribution, or chi-square statistic.

<sup>3</sup> This "map" serves two purposes: (1) it reminds the reader where we are in our approach and (2) provides a quick overview of how the theoretical threads relate to each of Senge's learning disciplines. To facilitate the reading of this dissertation, each subsequent Thread chapter will include a copy of this mapping.

<sup>4</sup> This is not to negate or minimize Bertalanffy's role in the development of GST. Although Bertalanffy was not the very first holistic thinker, it was his genius that heeded the call for a "new logic" (Wright, 1989), which he pulled together first as a "biological theory" in his twenties and then as a "general theory with interdisciplinary applications" twenty years later (Laszlo, 1972a: 4). The significance of his work is that he has brought together the scholarship of many prior centuries into a coherent theory of open, general, and living systems. GST enables communication across branches of learning so that knowledge need not be compartmentalized and fragmented (Rizzo, 1972: 144).

<sup>5</sup> The literature of systems theory is widely dispersed; researchers in a variety of different fields such as cybernetics, operations research, economics, and engineering have made contributions to its conceptual development. Emery (1981: 8) categorizes this body of work as the "engineering strand" of GST. Unlike its counterpart, the "biological-social strand," the work of the former group has an intellectual penchant for abstract, quantitative, mechanistic models.

<sup>6</sup> This is a reference to those organization scholars with humanistic proclivities and other like-minded persons who take into account that organizations have two dimensions, a social aspect and a technical one.

<sup>7</sup> According to the "power school," it is naïve to assume that organizations exist merely to accomplish formal goals and that the preferences of organizational members succumb to systems of prescribed rules, authority and norms of rational behavior (Shafritz and Ott, 1987). Rather, the power-politics contingent argues that organizations consist of rival coalitions that vie for dominance, each with its own interests, beliefs, values, preferences, perspectives, and perceptions (Cyert and March, 1963). Consequently conflict is a given and organizational mission and goals, a function of power shifts among transitory coalitions (Baldrige, 1971). For this reason many scholars contend organizational behavior is a game of competing influence (Mintzberg, 1983) wherein power and politics are fundamental to making sense of behavior in organizations (Pfeffer, 1981). This is an important point to keep in mind because organizational behavior and decisions are not always rational (Pfeffer and Salancik, 1974; Shafritz and Ott, 1987) as assumed by early systems thinkers.

<sup>8</sup> To illustrate the scholarly potential of systems thinking in the social sciences, Klir (1991: 182) has devised an impressive list of representative references. While "neither the list nor the references are exhaustive," it provides a sense of the far-reaching influence that the systems movement has had on the development of knowledge across several fields. Some of the disciplines included in Klir's list include cognitive sciences, ecology, management, philosophy, and political science.

<sup>9</sup> The Greeks developed the idea of steersmanship from their knowledge of seafaring practices required to control and navigate ships, which they later applied to government processes and statecraft (De Greene, 1982; Morgan, 1996). Drawing his inspiration from

the Greeks, Wiener (1948), a mathematician, developed the concept of cybernetics or systems steersmanship while working on anti-aircraft systems during World War II (Shafritz and Ott, 1987).

The problem of firing at a moving airplane presents a complex challenge involving statistical modeling and forecasting techniques (Morgan, 1996). De Greene explains:

It was necessary to shoot the projectile not at the aircraft itself, but along a trajectory such that the two would intersect in space sometime in the future. Accordingly, it was necessary to predict the future position of the aircraft (De Greene, 1972: 123).

Wiener used the steersman metaphor to call attention to the self-regulating behaviors in living organisms and machines as they adapt to challenges in the environment. The chief insight gained from the steersman depiction of the problem was the relationship between feedback and self-regulation (Bertalanffy, 1950; De Greene, 1982; Morgan, 1996).

Wiener was able to formulate equations describing a closed-loop system (the input to a computer was part of the output signal). Thus, the computer, utilizing a feedback loop, could calculate the time of the trajectory of a projectile and predict the point at which the gun should aim. Working with Arturo Rosenblueth, a biologist, and with other prominent engineers, mathematicians, biologists, and psychologists, Wiener formulated principles common to machines, animals, and societies (De Greene, 1972:123).

<sup>10</sup> Virtually anything is definable as an open system by setting down a permeable boundary (Morgan, 1996: 387). The approach is flexible and receptive to a wide variety of readings that derive from the concepts of openness and adaptability, the intellectual basis for revelation and insight. At the root of the model are cybernetic devices—inputs, transformation processes, outputs, and feedback channels—which theorists in diverse fields have employed to elaborate details of the system under study. Some good examples of basic systems theory applied to the study of organizations include the works of Katz and Kahn (1966) and Kast and Rosenzweig (1985). The main lesson learned is that the traditional closed view of organizations fails to fully recognize the significance of the interdependencies and interactions between organizations and their environments. We see these ideas echoed in the learning organization's attentiveness to holism, interconnectedness, and generative learning. In addition, the LO model takes a very broad view of feedback. For Senge (1990: 75), "every influence is both cause and effect," which plays out in the LO's focus on total processes not single results.

<sup>11</sup> Ever since his graduate school days at the Massachusetts Institute of Technology (MIT), Senge (1990: 14) has found a mentor in Jay Forrester, founder of the systems modeling discipline in the 1960s (see Forrester, 1961). The influence of Forrester is very evident here in Senge's obvious appreciation of the relevance of nonlinear dynamics to



social phenomena—or as his teacher Jay W. Forrester (1987: 104) has noted: “We live in a highly nonlinear world.”

<sup>12</sup> Adaptive learning is “survival learning” (Senge, 1990) –otherwise known as single-loop learning (Argyris and Schön, 1978, 1996). This level of learning involves detecting and correcting differences between the organization’s current reality and their desired state. The major outcome of adaptive learning is behavioral change, such that the learning entity (organization, group, or individual) corrects a particular situation to achieve preferred results. Adaptive or single-loop learning is the lowest level of learning that occurs in individuals, groups, and organizations.

By contrast, generative learning is the trigger for innovation, creativity and system-wide change. As the word “generative” implies it is the kind of learning that is capable of producing or creating something new. Thus, generative learning is much deeper than single-loop learning (i.e., simple error correction). Because the goal of generative learning is to bring about system-wide change, it entails learning from deep inquiry into the beliefs, norms, and time-honored assumptions of the organization or double-loop learning (Argyris and Schön, 1978, 1996). As such, its purpose is to effect social change by changing existing organizational values. Generative learning may also involve deutero learning (Bateson, 1972; Argyris and Schön, 1978, 1996) –a kind of metalearning or learning about learning that serves to encode the process into the strategies and actions of the organization as a whole.

<sup>13</sup> Peter Vaill (1996) uses the metaphor ‘permanent white water’ to describe the turbulent environment in which organizations exist. Permanent white water puts organizations in the position of doing things they have little experience with or have never done before. Vaill argues that the best way to ride the high waves of change is through continuous learning.

<sup>14</sup> The goal of learning is to acquire and accumulate knowledge; in like manner, knowledge is an enabler for further learning (Davenport and Prusak, 1998). In its enabling role, knowledge makes possible the activity of learning. Hence, it is “process.” As the target or product of learning, knowledge is stock.

<sup>15</sup> Senge (1990: 373) suggests that each of the five disciplines may be conceived on three distinct levels: 1) practices - what you do; 2) principles - guiding ideas and insights; and 3) essences - the state of being of those with high levels of mastery in the discipline.

<sup>16</sup> A nonlinear system is one whose behavior is not just the sum of its parts (Wikipedia, 2006b). The mathematical relationship between variables is dynamic; sometimes the relationship between cause and effect is stable and proportionate, other times it is not (Kiel, 1994). As relationships vary, systems may vary, so it is important to consider change over time (Ibid). Hence, nonlinear systems are harder to model and more difficult to predict than those characterized by linear relationships (Kiel, 1994; Wikipedia, 2006b).

<sup>17</sup> In general, a threshold is a fixed location or value for which an abrupt change is observable (Wikipedia, 2005a).

<sup>18</sup> For the purposes of this discussion, systems thinking and a systems perspective refer to the same thing—i.e., a multi-disciplinary process with which to examine the “wicked problems” (Harmon and Mayer, 1986: 8-9) in a complex social environment that defy solution by other analytical means and at best have impermanent resolutions (Eggert, 1998; Leonard, 1994; Klir, 1972; Ziegenfuss, 1983).

<sup>19</sup> Ritchey (2003) defines morphology as

[The] study of the shape and arrangement of parts of an object, and how these parts “conform” to create a whole or Gestalt. The “objects” in question can be physical objects (e.g. an organism, an anatomy, a geography or an ecology) or mental objects (e.g. word forms, concepts or systems of ideas) (p. 1).

He goes on to suggest,

Specific forms of morphological analysis are used in a number of scientific disciplines – for instance, linguistics, zoology and geology – in which formal, structural relationships are more important than quantity as such. However, what I am presenting today is “general morphology” – i.e., morphological analysis that is not associated with any specific discipline (Ibid).

So, in short, morphological analysis is a method used to structure and analyze complex, ill-defined, ambiguous sets of problems, i.e., “messes” (Ackoff, 1981) that are the product of any number of interrelated, interacting factors which evolve in a social context (Richey, 2005; Wikipedia, 2005b). Fritz Zwicky (1969), a professor of astronomy at the California Institute of Technology, developed this technique in the 1930s as a means to handle problems of “seemingly non-reducible complexity,” for which other tools such as “causal modeling and simulation” do not work (Ritchey, 2002; Wikipedia, 2005b). According to Ritchey (2003), this approach, which the Swiss Morphological Society has employed in some 40 projects involving policy analysis, scenario development and strategy management,

. . . was explicitly developed to work at the level of messes and problems. More specifically, MA is used to turn messes *into* (structured) problems. In the process, we build up a problem laboratory where we can generate alternative solutions *depending on different hypothesized conditions*. In a sense, we build a non-quantified input-output model, in which we can define independent and dependent variables, test certain conditions against others, and hypothesize relationships (p. 3).

<sup>20</sup> A core principle of an open systems perspective is the concept of systems in equilibrium or homeostasis—to wit, the tendency of an organism, machine, or organization to seek balance through self-regulation in order to adapt to changes in its surrounding environment (Ackoff, 1981; Berkes et al, 2003: xi; De Greene, 1982; dictionary.com, 2006; Klir, 1991; Morgan, 1996; Shafritz and Ott, 1987). But, the view that social systems tend to migrate towards a stable equilibrium presupposes “an overly mechanistic and orderly vision of organization and change” (Kiel, 1994: 14; Seeger, 1992) that is incongruent with the present realities of the human condition; namely, a world that is turbulent, complex, and unpredictable. Nevertheless, the adaptive paradigm and its notion of equilibrium-based change reflects a dominant worldview of natural and social systems (Berkes et al, 2003; Jantsch, 1980; Kiel, 1994; Seeger, 1992) that reverberates within and across many academic fields and disciplines because of its face validity and explicatory elegance.<sup>16</sup> However, ubiquity alone is a “pseudo-explanation” (Corning and Kline, 1998) at best because it takes for granted the attendant conditions and precipitating factors of that which we want to explain. The danger is one of oversimplification. For that reason it is incumbent upon the observer to recognize the inherent uncertainty, limiting effects, and intricate dynamics of the world around us.

<sup>21</sup> The *presumption* of homeostasis assumes that systems have a “natural teleology” or encoded purposefulness, which seeks balance and acts as a motivational force for adaptation and survival (Corning and Kline, 1998; Dobzhansky et al., 1977). But, the world in which this objective is pursued is highly dynamic and unstable, which suggests the possibility of more than one stable state.

<sup>22</sup> According to Bar-Yam (1997: 10), “The amount of information necessary to describe the behavior of a complex system is a measure of its complexity.” Despite individual vagaries much observed phenomena from the natural sciences to the social sciences exhibit the hallmarks of complex systems (Bar-Yam, 1997; Grzybowski and Campbell, 2004; Wikipedia, 2006c). Some commonalities include: (1) the presence of many parts that spontaneously organize into patterns; (2) relationships between components are of a nonlinear nature; (3) complex systems evolve over time as a result of disturbances in their environment; and (4) complex systems resist entropy. It is important to note that all four attributes need not be present—a given complex system might have one or more of these properties (Grzybowski and Campbell, 2004).

<sup>23</sup> In the literature on complexity researchers call this the “Butterfly effect” –i.e., the discovery that small causes could have big consequences (Kiel, 1994) as a nonlinear system evolves over time (Arthur, 1999).

## Chapter 3

### THE HUMAN RELATIONS THREAD

The Human Relations Thread encompasses the body of work that sees the organization through the lens of individual and collective behaviors and concerns. Key themes center on group norms, motivation, leadership, empowerment, the effects of work climate on people, and organization change and development (Ott, 1996). These topical areas when engaged as a group embody the theoretical underpinnings for two of Senge’s disciplines, *Personal Mastery* and *Team Learning*, as shown below in Figure 3-1. We begin our discussion of this thread with the Hawthorne Studies, which are, to paraphrase Shafritz and Ott (2001: 146), the most significant set of events to bode “a conscious theory of organization behavior.”

**Unraveling the threads of the Learning Organization<sup>1</sup>**

You Are Here	Conceptual Threads	Senge’s Five Disciplines
	A. The Systems Thread	Systems Thinking
⇒	B. The Human Relations Thread	Personal Mastery Team Learning
	C. The Culture Thread	Shared Vision Mental Models
	D. The Learning Thread	Personal Mastery Team Learning
	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
	F. The Structural Thread	Systems Thinking

**Figure 3-1**

## *Hawthorne Experiments*

The Hawthorne experiments<sup>2</sup> and related endeavors on group dynamics produced momentous insights about the importance of social and psychological factors in the workplace. This body of work that lay emphasis on the social dimensions of organization—such concerns as group relations, worker autonomy, human needs and personal recognition—presented a major upset to classical management theory. With new insights into human behaviors at work, the longstanding view of “paying the right rate for the job” (Taylor, 1911) was “found wanting” (Herbert, 1981: 24).

The Hawthorne Studies (HS) are legendary for identifying the significance of social needs in the workplace. An important consequence of HS was the discovery that intrinsic details such as attention given to workers, group norms, direct feedback, management’s willingness to listen, and workers’ control over their own work are more powerful motivators than money. HS demonstrated very emphatically that human nature influences work activities and behavior as much as formal design (Morgan, 1996; Roethlisberger and Dickson, 1939).

Out of the Hawthorne Studies, the subject of work motivation developed into a major concern, as did the connection between individuals and groups. A new theory of organization began to emerge, based on the thesis that individuals and groups function best only when their needs are satisfied.

## *Human Motivation and Personal Mastery*

Psychologists suggest, “people behave in certain ways and pursue particular courses of action to satisfy their needs” (Scanlan and Keys, 1979: 222). Since needs satisfaction is a persuasive precursor to act, human motivation in the workplace has strategic implications for an organization—especially since people are the key levers for change. In a learning organization, an “intrinsic motivation” to learn plays a critical role in this regard (Senge et al., 1999: 44).

Underlying the LO exemplar is the presupposition that a yearning for learning in the individual is inspired by and will flourish in an organizational culture imbued with the same insatiable thirst for knowledge. Implied in this is a Deweyan belief<sup>3</sup> that learning is a social process (Dewey, 1916) as well as an expectation that the members of the organization will internalize business goals<sup>4</sup> and values as their own (Katz and Kahn, 1966). Therefore, if the organization builds a work climate that encourages, supports, and rewards learning behaviors, the desired motivational response will happen (Scanlan and Keys, 1979: 222); the organization can both become a learning organization and sustain the growth processes that accompany profound change (Senge et al., 1999:44).

Addressing this kind of assertion, theorists have proposed many models to analyze employee motivation and the corresponding effects of a variety of attributions upon it (Tenbrunsel et al., 1996). However, inconsistent results continue to be an issue (Dessler, 1980) and there is debate as to whether attributions are antecedents or heirs to behavior (Lord and Smith, 1983 as cited in Tenbrunsel et al., 1996). In addition, motivation, as a function of a person’s needs is difficult to generalize since at its essence

needs are very individualistic (Dessler, 1980; Scanlan and Keys, 1979). But even with the disputed issues of *how* motivation is aroused and *when*, there is some consensus across theories that identify *what wants* customarily drive human behavior. Typical of this lot<sup>5</sup> are the theories of motivation posited by Maslow<sup>6</sup> (1970), Herzberg<sup>7</sup> (1968), and McClelland<sup>8</sup> (1961), which deal by and large with the identification and relative standing of human needs (Dessler, 1980). And, despite their individual differences in descriptive terminology and model design, they reach a common ground with regard to the higher order human need for self-actualization<sup>9</sup>, pictured here in Figure 3-2.

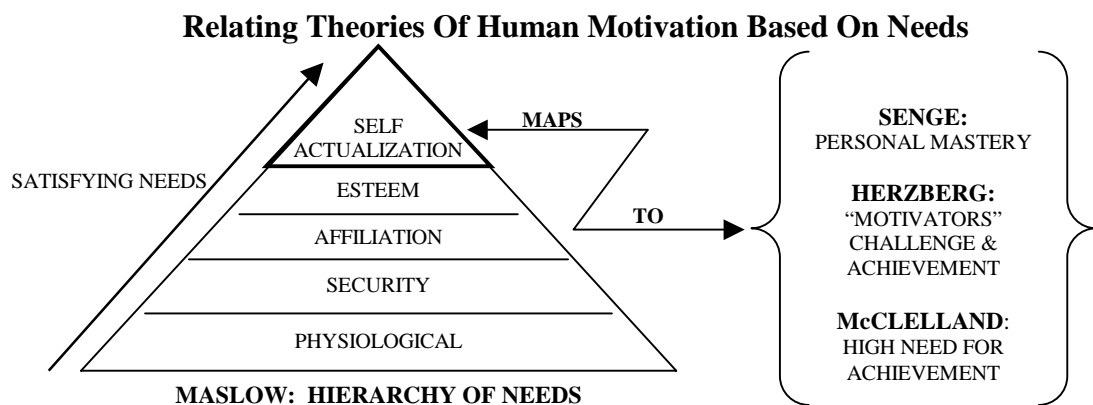


Figure 3-2

Senge (1990) taps into this aspect of human nature, a facet of LO demonstrated by a conspicuous congruence between the “discipline of aspiration,” personal mastery, and the high-level human desires for knowledge, the attainment of goals, and individual fulfillment. Accordingly, Maslow’s higher-level needs (achievement, self-actualization) are similar to Herzberg’s motivator factors (challenge, achievement); likewise, when McClelland speaks of people with a high need to achieve, such achievement needs parallel the higher-order needs or motivators. The personal mastery discipline blends

these various flavors of achievement into a single “body of study and practice,” as Senge and his colleagues make clear:

[Personal mastery] involves formulating a coherent picture of the results people most desire to gain as individuals (their personal vision), alongside a realistic assessment of the current state of their lives today (their current reality). Learning to cultivate the tension between vision and reality ... can expand people’s capacity to make better choices, and to achieve more of the results they have chosen (Senge et al, 1999: 32).

As such, the motivation to learn and apply learning together with a predisposition and readiness of organizational members to adopt the mission and purposes of the enterprise as their own galvanizes the personal mastery discipline. The role of personal mastery then operates from two parallel dimensions. The first dimension is particular to the individual, to conceive a personal vision and to bring about the results most wanted through an ongoing journey of self-discovery based on that vision. The second dimension links individual goals to business goals through assimilated organizational values and objectives (Katz and Kahn, 1966) that are manifest in a genuine commitment to learn and to relate that learning to organizational work.

As a visible expression of sociotechnical systems thinking, the learning organization embodies a set of “optimistic assumptions” (Chisholm, 1984) about the ways in which people act in the workplace. This is especially evident here in personal mastery, which holds true 1) a firm faith in the integrity of the individual to want to do the best that he or she can do and 2) an expectation that people identify with their work and derive enormous ego income from accomplishing it.



## *Group Processes and Team Learning*

The use of teams<sup>10</sup> and teaming mechanisms has mushroomed in recent years (Mohrman, Cohen, and Mohrman, 1995) to master the challenges and complexities posed by a fickle, uncertain business environment. Unrelenting pressures for speed, cost containment, quality, and innovation require the diverse insights of many—teams of frontline employees empowered to work together and act jointly as one (Wellins, Byham, and Dixon, 1994). Organizations for this reason must become agile learning systems to address the rising demands for high-quality performance (Bennett, 1994; Edmondson and Moingeon, 1998; Garvin, 1993; Hanssen-Bauer and Snow, 1996; Nevis, 1995; Senge, 1990; 1994; 1999). Furthermore, because teams enable the synergetic effects of combining knowledge from multiple experts, they are a viable configuration when pursuits require compound skills, judgments and experiences (Katzenbach and Smith, 1993). The proliferation of teams in the workplace and related topical literature is a sign that many organizations now “get it” –they realize that a good fit between organizational design and strategy can reap competitive advantages (Galbraith, Lawler, and Associates, 1993; Mohrman, Cohen, and Mohrman, 1995; Nadler et al., 1992). Likewise, they have begun to recognize the power and strategic benefit of collective intelligence to deal with the opportunities and threats introduced by the changing environment. In effect, nearly every major decision made today in an organization is a team decision, be it made directly or through the need for teams to interpret and convert individual judgments into action (Senge, 1990: 236). And, for the learning-enabled organization, teams are indispensable to bring about profound change, quality development, and renewal (Kehoe, 1996; Senge et al, 1999).

The present-day interest in teams builds on a very rich heritage (Guzzo, Salas and Associates, 1995; Mohrman, Cohen, and Mohrman, 1995) of theory and research from the behavioral sciences regarding the subject of the human group (Kast and Rosenzweig, 1985; Parker, 1991). While it may be true that many contemporary books highlight the value of teams (Parker, 1991) and are teeming with stories of organizations “winning through teamwork” (Wellins, Byham, and Dixon, 1994), the idea of work groups and team-based approaches is not anything new. In general, teams have existed for hundreds of years (Katzenbach and Smith, 1993:11) for any number of purposes. As an entity used in job-related settings, it is not too difficult to find early documented occurrences of team configurations and other such cooperative arrangements, especially following the Hawthorne experiments. For example, the modern idea of the self-managed work team is a direct outgrowth of the lessons learned by researchers studying productivity in British coal mines in the late 1940s.<sup>11</sup> After that even the current perspective of the team as change agent is traceable to a former decade—the 1960s—at which time organization development (OD) emerged as a social technology to improve wholesale effectiveness of the enterprise and groups the principal vector to effect large-scale change (Guzzo, Salas and Associates, 1995). Hence, from the vista of research focus, “groups have long been studied, and teams are [the] newcomers” (Guzzo, 1995:2) on the block.<sup>12</sup>

Like Guzzo and colleagues duly point out in the following passage, it was apparent to researchers from the Hawthorne Studies that groups have a profound influence on their members’ behaviors—and, it is from this revelation that a concern with work teams developed as a major area of scholarly endeavor.

Interest in groups and teams has never been absent from industrial and organizational psychology. The power of groups was discovered in the Hawthorne Studies, which began nearly two-thirds of a century ago. Since then, the importance of research and practice with teams in organizations has manifested itself in many ways (Guzzo, Salas and Associates, 1995:xvi).

According to one retrospective written in the halcyon days of its conceptual development, the theoretical importance of the small group in organization studies rose from its widespread presence and multi-purposefulness in social systems.

As small group theory has developed ... it has come to encompass both a set of theoretical concepts and a distinguishable methodology to many concerns of administrative and organization theory. ... The theoretical relevance of this body of knowledge is evident from a number of standpoints, since the small group: (1) is an ubiquitous and inevitable element of complex social systems; (2) plays an important part in the development and elaboration of personality; (3) is a major factor in processes of socialization and control; (4) bears many resemblances—as a social system—to large scale social systems; and (5) can be mobilized as a powerful motivational force (Shull with Delbecq, 1962:313).

Thus, groups pervade our everyday existence and the current interest in teams derives benefit from an inspired and prolific past in the annals of organization theory. In terms of the learning organization and especially the discipline of team learning, Senge (1990; 1994; and 1999) has drawn considerable inspiration from the knowledge domain of group dynamics.

Group dynamics, a term more or less synonymous with research devoted to small groups' inquiry has had a far-reaching impact on the study of group behavior (Olmsted, 1962: 324-330). The underlying philosophy of group dynamics is that of Gestalt

psychology, where the emphasis is on whole systems rather than particular stimuli and specific responses. Its “founder and guiding spirit” was the social psychologist, Kurt Lewin, who during the 1940s set in motion the development of experimental social psychology (Olmsted, 1962: 324; Rainey, 1997).

Lewin (1951) pioneered a new way of looking at change, as a dynamic balance of competing forces. He argued accordingly that groups exert pressures and influences on their members. Subsequently, if an individual leaves a cohesive group, any attitudinal or behavioral changes that occur following his or her departure are unlikely to stick if that individual later returns to the group. One must alter the total field of group pressures through a process of unfreezing, changing, and refreezing for a behavior change to take place. Thus, when Senge talks of learning through group commitment to arrive at a shared vision, it is an example of refreezing—setting group forces at a new equilibrium point.

Learning organizations seek to create a full range of teams through which the organization effects system-wide change. The understanding gained from Lewin’s force field analysis provides a theoretical basis and method of approach for team learning, the essence of which is to overcome resistance to change and to support group development. Hence, team learning, the process of unfreezing, changing, and refreezing behaviors to create desired results, occurs as the group overcomes its defensive routines<sup>13</sup> (Argyris, 1992); studies its deliberations<sup>14</sup> (Pava, 1986); and masters the practices of dialogue and discussion<sup>15</sup> (Senge, 1990).

For Senge, teams, not individuals, are the fundamental learning unit in organizations.<sup>16</sup> Senge's premise is this: if its teams do not learn, the organization cannot learn; if the organization cannot learn, it will not survive (Hendriks and Vriens, 1999). Team learning helps to develop the skills of groups to look for the larger picture (i.e., Gestalt) that lies beyond individual perspectives. When teams learn they become a "microcosm for learning" throughout the organization. As fresh insights are put into action, new knowledge spreads to other individuals and to other teams. In this way the accomplishments of teams set the tenor and standard for learning in the organization at large (Marquardt, 1996:36; Senge, 1990:236).

Other important work with respect to team learning includes the intellectual insights of Mary Parker Follett (1919, 1926, 1937), Chester Barnard (1938), Coch and French (1948), David McGregor (1960), and Rensis Likert (1961). Follett's research focus and scholarly concern was group management (Rhee and Sigler, 2005:322) and how the promise of human potential remains latent until released by group life (Wren, 2005). According to Follett, people develop a collective intelligence that represents an integration of individual perspectives, capacities, and interests (Ibid). In addition, she advocated cooperation and conflict resolution by means of integration, whereby managers strive to achieve commonality of interests (Rhee and Sigler, 2005:322). She was, moreover, among the first scholars to describe empowerment when she wrote of managers developing 'power-with' instead of 'power-over' employees (Rhee and Sigler, 2005; Wren, 2005). Follett believed the essence of good human relations was working with someone rather than for someone and she suggested that the basis for control in

organizations was self-directing individuals who recognized a sharedness between their goals and those of the organization (Rhee and Sigler, 2005:322; Wren, 2005).

Chester Barnard (1938) was a “self-made scholar”<sup>17</sup> (Wren, 2005:313) who looked at organization as a cooperative system of human activity (Andrews, 1968; Rhee and Sigler, 2005). Recognizing the importance of the human element, Barnard articulated a theory of formal organization that emphasized communication, common purpose, and an individual’s willingness to perform (Morgan, 1990; Rabin, 1994; Wren and Greenwood, 1998). For Barnard, managerial authority was not inherent to organizational rank; rather the willingness to cooperate was a function of the individual and his or her “zone of indifference” (Rabin, 1994).<sup>18</sup> In addition, Barnard was the first theorist to elaborate on the importance of the informal organization (Wolf, 1974). The noted Barnard biographer, William Wolf (1974), summed up his accomplishments as follows:

[Barnard] was the first to emphasize the holistic nature of organization... to focus attention on the informal aspects of organization... he delineated a general definition of formal organization... he modified traditional belief about the nature of managerial authority... he was the first to emphasize decision processes as a significant aspect of organization and management... he drew attention to the non-logical processes in personal decisions... he focused upon the executive organization as a communication system.” (p. 34)

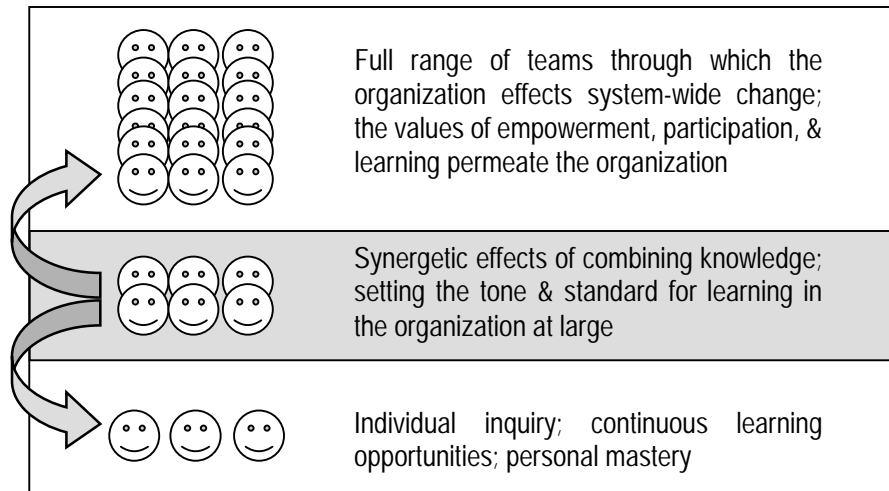
Coch and French (1948) studied the dynamics of participative decision-making in factory groups facing changes in work procedures. They found that highly participative groups were better able to implement changes than those groups who were not participative. Considerably later, the research of David McGregor (1960), who articulated the famed models of Theory X–Theory Y management practices, also lent support to the ideas that people are fully capable of self-direction and self-motivation. Similarly, Rensis

Likert (1961) examined the management practices of high-performing managers and summarized his findings into four systems of management. He found that the most effective style is System 4, an employee-centric approach that fostered high productivity and employee involvement. Today, we would characterize System 4 as participative or team management (Parker, 1991:24).

These important findings and others helped to shape present-day practices such as employee empowerment, democratic dialogue, and self-managed teams—innovations that are central to the substance and success of a learning organization. Essentially the logic here is that group commitment grows out of participation. Therefore, involved employees are more likely than uninvolved employees to support planned change and learning.

To summarize the main points of the team learning discipline, Figure 3-3 below illustrates the learning relationship among individuals, teams, and organizations. The key to this model is the shaded area, where groups of individuals mutually accountable for performance in the organization (i.e., teams) benefit from the synergetic effects of learning and working together (Watkins and Marsick, 1993). Thus, the team, as the core learning unit in the learning organization, sets the standard for learning in the organization taken as a whole (Marquardt, 1996) by inculcating its collective practices and values system-wide. In other words, a learning team continually cultivates other learning teams. Due to the team's central role to performance in LOs, structurally speaking the LO is a system of learning teams (Mohrman, Cohen, and Mohrman, 1995).

### The Learning Organization = A System of Learning Teams



**Figure 3-3**

#### *Limitations*

Two critical ideas about learning organizations emerge from our discussion of the Human Relations thread and its role as theoretical precursor for the personal mastery and team learning disciplines. First is the very optimistic notion that people possess an “intrinsic motivation” to learn, which inspires them to seek knowledge and apply their learnings to organizational work. The second consequential, equally sanguine idea is one that materializes out of the social ethos of the Human Relations thread. With the recognition that the affiliation needs of people in organizations matter comes both an appreciation of and the positive assumption that the synergetic power of working together and cooperating with others *can* and *will* occur to achieve enterprise goals. However, from both these assumptions about human nature flow a number of practical difficulties



with respect to individual motivation and group processes that can undermine the realization of the learning organization ideal.

### Personal Mastery: Assumptions and Impediments

The discipline of Personal Mastery (PM) is the spiritual foundation of the learning organization (Senge, 1990). Grounded in both Western and Eastern philosophic traditions, personal mastery is the Promethean root of growth and development in the learning organization (Biberman and Whitty, 1997; Hawkins, 1991; Malde, 2003; Senge, 1990). Blending action and reflection, logic and intuition, and proficiency and practice into an integrated field of endeavor, the engine of PM is dialectical exchange<sup>19</sup> (Cameron and Kearns, 2002; Delors et al., 1996) and its essence the creative tension between one's current reality and future vision (Senge, 1990).

As its moniker implies, the personal mastery discipline addresses the role of the individual as learner in the learning organization. Given that "organizations learn only through individuals that learn" (Senge, 1990:139)<sup>20</sup>, the PM discipline serves as grapnel for the LO framework; thus, anchoring and tying together individual responsibility, team development, and overall evolution of the enterprise (Cameron and Kearns, 2002) as a learning entity.

While for many of us the usual connotation of mastery is the possession of consummate skill and/or great knowledge of some subject or activity, the PM discipline encompasses something more than a specific range of aptitude, proficiency, and ability. For Senge (1990) and his disciples, PM is a continuous state of learning and discovery

wherein the learner grows cognitively, emotionally, spiritually, and creatively (Cameron and Kearns, 2002; Campbell, 1995). Consequently, the discipline of PM is more akin to self-actualization (e.g., Maslow, 1970) than know-how—it is an ongoing process where the individual and organization is in a dynamic dance, a “state of becoming” (Frost, 1996:10; Kofman and Senge, 1993:15; Wheatley, 1994) or “learning to be” (Cameron and Kearns, 2002:33) as Senge (1990) states in the passage below.

Personal mastery goes beyond competence and skills, though it is grounded in competence and skills. It goes beyond spiritual unfolding or opening, although it requires spiritual growth. It means approaching one’s life as a creative work, living life from a creative as opposed to reactive viewpoint (p. 141).

Thus, PM is fundamental to human growth and maturity (Phillips and Baker, 2003) and subsequently, organization development and excellence; it is the source of self-knowledge and awareness (Connolly, 2001; Fitzgerald, 2003), a genuine desire to succeed (Maani and Benton, 1999), beauty, truth, and virtue (Kessels and Müller, 2005), and an interdependent orientation that provides a means to connect individual wants to some greater purpose (Roberts, 1994). Senge (1990) identifies the following guideposts as the context and conduit for understanding the process of personal mastery, and ultimately the essence of the learning organization:

1. Personal vision: That which gives an individual a sense of purpose—the core beliefs and values that shape who the person is and what (s)he wants to be.
2. Creative tension: The gap between reality and aspiration. It is the source of personal energy that drives the individual to move from his or her current state of being to their vision.
3. Structural conflict: Conflicting beliefs and emotional tensions that pull us simultaneously in the direction of and away from achieving what we want.

Structures of which we are unaware hold us hostage. Recognizing these forces is the first step in overcoming them.

4. Commitment to truth: An uncompromising willingness to broaden our awareness of and eradicate the self-imposed distortions of reality that limit our behavior. A commitment to truth is the creative force that leads to broadened self-awareness and a deeper understanding of the existing structures that underlie current events.
5. Using the subconscious: The subconscious brain is an individual’s inner wisdom. It is “the automatic mind” and “tacit knowledge” that lies below a person’s normal conscious mental processes. The subconscious mind has enormous capacity to deal with complexity that we generally do not have at the conscious level, and which we may engage through processes such as visualization, meditation, imagination, and prayer. Using the subconscious means tapping into this extraordinary mental resource to concentrate on desired results rather than focusing on negative thoughts.

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(Adapted from Anderson, 2004; Fetting, 2004; McIntyre, 2003; Senge, 1990: 139-173)

Similarly, Cameron and Kearns (2002) identify seven aspects of PM through which an individual can grow personally and professionally, shown here in Table 3-1 for the purpose of summarization. Because PM helps people chart their own course in life and work, it holds the key to acceptance of oneself and others, greater creativity, problem-solving ability, productivity, satisfaction, joy, self-efficacy, and expanded life possibilities (Bandura, 1989; Hellriegel et al, 1992; Riemer and Jansen, 2003).

**Table 3-1**  
**7 Dimensions of Personal Mastery**

Self-Awareness:	Seeing and understanding oneself.
Perceptual Acuity:	Having the ability to read situations.
Emotional Mastery:	Understanding and controlling one’s emotions.
Openness:	Challenging one’s own thinking and absorbing new ideas and experience.
Flexibility and Adaptability:	Changing and adjusting to new situations.
Autonomy:	Being in control of one’s own life.
Creative Resourcefulness:	Having the imagination to find new ways to do things.

Adapted from Cameron and Kearns (2002:5-6)

At the risk of oversimplification, the underlying assumption of PM is this: build a better person and you build a better organization; to wit, a “workplace paradise” that is a site for personal growth and high performance (Driver, 2002:34), where both the ends of the organization and the personal ends of its members are simpatico (Newfield and Raynor, 2005). Unfortunately, however, such a workplace nirvana is seldom evident in practice, if it exists at all (e.g., see Kerka, 1995; Lawrence, 1998; Smith, 2001; Symon, 2003).

Predictably, a number of problems are apparent, which are impediments to the realization of the LO in practice. Notably, the esoteric language and reverential (Garvin, 1993) tone of the PM discipline may render it impenetrable for many audiences. Likewise, the touchy-feely (Booth, 2004), New Age demeanor of PM may be off-putting to those readers that prefer analytical methods and quantitative decision tools. Still others may view the LO framework and its disciplines as management propaganda and an insidious form of mind control (Lindsey, 1987 as cited in Senge, 1990: 172); yet another way to exploit employees to “serve the devious interests of those in power” (Driver, 2002:34).

The discipline of Personal Mastery (PM) serves a double role in the LO framework. On the one hand it is the feel-good/think-big discipline through which individual dreams and boundless, collective imaginings are set free. On the other hand, PM carries the imperative of individual responsibility. Hence, at the same time that PM is a celebration of the human spirit and the attendant joys of aspiration, with PM comes the obligatory hard work to see to one’s own individual growth and development. However,

can we necessarily assume that everyone has the desire and personal fortitude to follow through with this important responsibility? Furthermore, how can we be sure that an individual's personal motives, dreams, and desires coincide with workplace requirements?

The LO framework takes for granted that the right organizational climate will ignite its members' desires to exceed passable standards of performance and become creative and innovative in their work. Notwithstanding urban legend and some of the positive findings reported in the OD literature, the literature on human motivation seems to suggest otherwise; there remains a need to understand more clearly what motivates workers (Hellriegel et al, 1992).

Trends such as globalization, restructuring, and downsizing have served to alter the ways in which people view employment. The traditional "psychological contract" (Argyris, 1960) of hard work and loyalty in exchange for long-term security is passé (Robinson, 1996; Sims, 1994). Among the harmful outcomes associated with this breach of contract is a lapse in trust (Rousseau, 1989; Rousseau and Parks, 1994; Morrison and Robinson, 1997) as well as "a decrease in perceived obligations to one's employer, lowered citizenship behavior, and reduced commitment and satisfaction" (Robinson, 1996: 574; Robinson, et al, 1994; Robinson and Rousseau, 1994; Robinson and Morrison, 1995). *How* does the LO framework reconcile this? *Can* the LO framework reconcile this? Is leadership charisma and commitment to the ideals of the LO model enough to inspire trust and bring about a cultural shift?<sup>21</sup> Moreover, how many organizations truly embrace risk taking and see mistakes, crises, and other such setbacks as "learning

opportunities” (Cameron and Kearns, 2002; Campbell, 1995)? Despite what we know about learning, pay is for performance not practice and blame continues to be more ubiquitous an occurrence than forgiveness in contemporary organizations (Senge, 1990).

Even so, personal mastery is an ongoing journey and not a final destination (Cameron and Kearns, 2002; Senge, 1990; Sussman, 2004); there are no short cuts. Furthermore, personal mastery is a matter of choice. It is not something that an organization can simply decree or mandate through a compulsory training program, no matter how well intentioned the initiative may be. Organizations can get into considerable hot water if they become overzealous in their approach to promote PM. Indeed, some employees have filed lawsuits against their employers for mandating participation in personal development training that they deemed to be at odds with their religious beliefs (Cook, 1988 and Lindsey, 1987 as cited in Senge, 1990: 172).

Personal mastery is intrinsic to the individual in the same way that motivation is a central element of the human desire to learn (Osteraker, 1999:73). And, while “the aim of every successful learning organization [may be] to find the factors that ... motivate its employees [to learn]” (Ibid), the dynamic, individualistic nature of needs makes this a problematic pursuit (Dressler, 1980; Scanlan and Keys, 1979). Organizations have long struggled with the matter of motivation and how to induce people to be productive members of the organization. The point was made earlier that there are many disputed issues of how motivation is aroused and when (Dressler, 1980; Lord and Smith, 1983 as cited in Tenbrunsel et al., 1996; Scanlan and Keys, 1979). While content theories of motivation focus on the specific factors within the individual that drive, sustain or

prohibit behavior, they promote little understanding of why people choose a particular action to accomplish their goals (Hellriegel et al, 1992; see also note 5). Similarly, while process theories may describe how factors intrinsic to a person produce certain kinds of behavior (Ibid), they tend not to speak to the constraints under which most organizations operate nor do they address the lack of incentives available to motivate workers (Mumford, 1991; Osteraker, 1999). A major problem with personal mastery then is one of linkages; to wit, wedding inducements to behavior, connecting individual goals to business goals, and relating learning to organizational work.

The conditions of the 21<sup>st</sup> century make learning over a lifetime essential for all. Likewise, the role of PM in the LO model is a call to action, a reminder of the adult daily requirement for lifelong and lifewide learning<sup>22</sup> that beseeches each of us, in order to maintain employability, be more effective at work, and to achieve personal fulfillment and a better quality of life. But, as most people would agree, life holds no guarantees. Not all learned people have fulfilling work and a substantial number of them are even homeless (helpusa.org website, 2006). And, as shocking as it is to those of us who enjoy the quest for new knowledge and experiences, some people find comfort in vegetating on their sofas. The point is everyone is different. Nevertheless, while it is easy to conclude that the path to self-improvement does not necessarily lead to “workplace nirvana” (Driver, 2002; Newfield and Rayner, 2005) – that organizational “Promised Land” for individual growth and high performance—personal mastery is a good idea and remains one of the best strategies at an individual’s disposal to exercise control over his or her life and work.

## Team Learning: Assumptions and Impediments

According to Senge (1990:10) team learning—the discipline of group interaction—is “where the rubber meets the road” in learning organizations. Because the team is the fundamental learning unit in a learning organization (Senge, 1990; see also note 16), the ability of team members to learn together and then transform collective thinking into knowledge and action is imperative both to the productivity of the work group as well as to the survival of the organization (Brown and Woodland, 1999; Loermans, 2002; Martin, 2005:9; Merriam and Caffarella, 1999).

Given that learning is a social process (Airasian and Walsh, 1997; CSCL, 1999; Davydov, 1990; Dewey, 1916; Kilgore, 2001; Vygotsky, 1926) that unfolds through dialogue, discussion, brainstorming, and the exchange of new ideas (Akella, 2003:25; Senge, 1990; 1999), teams serve an important acculturation function for the organization both by setting the norm for learning in the LO at large as well as by inculcating their shared practices and values system-wide (Hoff et al, 2004; Marquardt, 1996; Watkins and Marsick, 1993; Mohrman, Cohen, and Mohrman, 1995). When a team is truly learning and working together, the group as a whole becomes much more than just the sum of its parts due to social synergy (Bennet and Bennet, 2004; Mohamed et al, 2004; Sydänmaanlakka, 2003) and the synergy between learning and knowledge (Loermans, 2002). According to Bennet and Bennet (2004), when these synergies occur, core competencies develop that are unique to the enterprise and rarely replicable by other firms, thus adding to the overall performance and value of the organization. Some of the other pluses ascribed to team learning given that the climate is one of interpersonal trust



and mutual respect include participative openness, consensus building, improved communication flows, reflective thinking, greater experimentation, better responsiveness to environmental change, and enhanced creativity (Chang and Lee, 2001; Edmondson, 1999; Hoff et al, 2004). However, without the benefit of a supportive organizational context—namely, one characterized by psychological safety—the capacity of the learning team to learn suffers (Chang and Lee, 2001; Edmondson, 1999; Garvin, 1993; Senge, 1990). In other words, people tend to act in ways that hinder learning unless they feel secure (Chang and Lee, 2001:191).

While Chapter 5, *The Learning Thread*, discusses more fully the ramifications of a non-supportive environment and other such impediments to team learning, for now suffice to say that teams, while pervasive in organization life, are not always effective. Among the problems that preclude their success is the potential for incompatible interests among team members (Hellriegel et al, 1992); a lack of coordinated action (Senge, 1990); the conformance-seeking tendency of a group (Janis, 1982); an inability to overcome defensive routines (Argyris, 1992); and diffusion of responsibility, social loafing, and sucker effects<sup>23</sup> (Albanese and Van Fleet, 1985; Caldwell, 2005a; Hellriegel et al, 1992; Schnake, 1991). Also, many organizations have reward systems based on individual performance that hurt efforts to foster teamwork and limit their effectiveness (Deming, 1986). Teamwork and subsequently team learning will only be effective if interventions focused at team processes are accompanied by congruent changes in the wider organizational context to support and facilitate those processes (Cameron and Kearns, 2002; Kofman and Senge, 1993; Moynihan, 2005; Schein, 1993).

## *Summary*

Following the methodology laid out in Chapter 1, the purpose of this chapter on the Human Relations Thread was to examine the theoretical underpinnings for two of Senge's disciplines, *Personal Mastery* and *Team Learning*. Core themes in this regard included prior work on group norms, motivation, empowerment, work climate, and organization change and development.

Two significant ideas about learning organizations emerged from the Human Relations thread and its role as theoretical forerunner for the personal mastery and team learning disciplines. First is the very positive notion that people possess an innate motivation to learn, which inspires them to seek knowledge and apply their learnings to organizational work. The second consequential idea has to do with the social ethos of the Human Relations thread itself. Attending the recognition that the affiliation needs of people in organizations matter, organizations have sought to use teams to tap the potential puissance of synergy to achieve enterprise goals. However, there are a number of impediments with respect to individual motivation and group processes that challenge the PM and team learning disciplines, and subsequently the realization of the learning organization ideal. The most significant inhibitor is the absence of a receptive culture to support and facilitate those processes.

In the next chapter we continue our process of anatomizing the LO model. The *Culture Thread* considers how the disciplines of *Shared Vision* and *Mental Models* can aid or impede efforts to implement the learning organization framework. Cultural processes lie beneath and trigger much of what takes place in organizations. While there

is consensus that the culture of an organization is imperative to its performance, it remains a problematic phenomenon, one that has rendered the LO concept difficult to operationalize and sustain.

## NOTES

<sup>1</sup> This “map” serves two purposes. (1) It reminds the reader where we are in our approach to trace the historic roots of the learning organization. (2) It provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

<sup>2</sup> The first major study to consider the effect of human behavior on work performance was the famed Hawthorne Studies (Roethlisberger and Dickson, 1939) conducted at Western Electric’s Hawthorne plant in Chicago, from 1927-1932 (Herbert, 1981:15-16). Based on the principles of scientific management, the researchers sought to investigate the individual and combined effects of various dynamics on productivity, among which were lighting intensity, heat, fatigue, and work layout.

In what many consider to be “the most famous study” of its kind (Ibid.), the investigators created control and experimental groups to examine the effect of lighting on worker productivity. The experiment involved changing the level of illumination for the test group; the control group’s lighting remained constant. For both groups, researchers measured and recorded worker output.

Quite to the amazement of investigators, the expected results did not happen. Contrary to the assumptions of the scientific management movement, the researchers discovered that norms of the work group affected productivity more than changing job conditions. This important finding discredited the primacy of Taylorist views and was the catalyst for a groundswell of work on individual and group needs, anchored in the following beliefs about human workplace behavior:

- 1) Social needs motivate people.
- 2) Work rationalization has devalued work meaning so people seek fulfillment in social relationships on the job.
- 3) Work group norms have a greater impact on behavior than management incentives and controls.
- 4) A supervisor is only as effective as his or her ability to satisfy their workers’ social needs (Handy, 1993:399).

Over the past several decades a number of researchers have called into question the scripture of the Hawthorne studies and its conclusions about worker behavior due to problems alleged with study design, methodological rigor and flawed interpretation of the data (e.g., Argyle, 1953; Carey, 1967; Jones, 1990 and 1992; Kolata, 1998; Parsons, 1974; Sykes, 1965; Yorks and Whitsett, 1985). For example, Jones (1992:451) looked at empirical evidence for the existence of Hawthorne effects using original data from the Hawthorne Relay Assembly Test Room and found “slender or no evidence of a Hawthorne effect”. Likewise, Carey (1967:403) performed a detailed comparison between the conclusions and evidence of HS and determined the “conclusions to be

almost wholly unsupported.” Eleven years later, Franke and Kaul (1978) arrived at a similar conclusion to Carey. On the basis of their statistical reinterpretation of the HS data, Franke and Kaul deemed that the human relations school’s qualitative reading of the HS findings failed to explain correctly the results obtained (Yorks and Whitsett, 1985: 22).

But, despite modern criticism that the research was flawed and the investigators’ failed to rule out rival hypotheses (Gottfredson, 1996), these studies endure because of their historical significance. HS changed the direction of management research and practice from Taylorism to a social sciences approach. As a result of HS, we understand an organization to be something more than a formal arrangement of functions; it is also a social system.

<sup>3</sup> John Dewey was a proponent of “learning through community” in the early 20<sup>th</sup> century. He argued that education is most successful as a social process and is profoundly embedded in our understanding of community and democracy (Dewey, 1916).

<sup>4</sup> This is a reference to Katz and Kahn’s (1966: 336) typology of “motivational patterns” used to elicit desired behaviors in organizations. Accordingly, Katz and Kahn identify four key tactics or patterns, 1) imposed compliance, 2) rewards, 3) job satisfaction, and 4) goal internalization, which they suggest fall along a continuum.

The first two devices rely on external cues. Imposed compliance, the first strategy, mirrors the basic pattern of motivation found in classical organization theory, such that employees obey rules based on the “legal authority” (Weber, 1946: 294-301) of management. The second pattern involves the use of remuneration such as pay and benefits to induce required behaviors. Unlike the first two patterns, the third and fourth ones tap into the workers’ intrinsic motivation to identify with the job and internalize organizational goals, respectively.

Katz and Kahn argue that while each of the four patterns is appropriate at different times, only “self-control” (patterns 3 and 4) will bring about the kind of innovative behavior that is desirable in an unstable environment. As a demonstration of sociotechnical systems thinking in action, the learning organization exhibits a sanguine point of view about people and their workplace behaviors (Chisholm, 1984). This is clearly evident in the learning organization’s reliance on its members’ intrinsic motivation (i.e., self-control) to respond quickly to environmental pressures and to think imaginatively about the future (Senge et al., 1999).

<sup>5</sup> There are two major categorizations of motivation theories that try to explain why people behave in certain ways to satisfy their needs (Hellriegel et al, 1992: 207-233). **Content theories** focus on the specific factors within the individual that drive, sustain or stop behavior. Three widely recognized content theories are Maslow’s human hierarchy of needs, Herzberg’s motivator-hygiene theory, and McClelland’s achievement motivation theory, explained below in notes 6, 7, and 8.

**Process theories**, in contrast, purport to describe and analyze how factors internal to the individual interact and influence each other to produce certain kinds of behavior. Two such theories are expectancy theory and equity theory.

*Expectancy theory* posits that individuals have their own needs and ideas about the rewards they desire from work, which forms the basis for conscious choice among alternatives (Porter and Lawler, 1968; Vroom, 1964). In other words, “people choose to behave in a way that maximizes the expected pay-off of the consequences of their actions” (Mitchell, 1985: 18).

*Equity theory* focuses on an individual’s feelings of fair treatment in comparison with others (Adams, 1963; Walster et al, 1978). Equity theory posits that people engage in behavior to reduce perceived imbalances between inputs (effort, loyalty, hard work, commitment, et cetera) and outputs (financial rewards, recognition, advancement, and so on.)

Motivation is a key element of human learning (Hellriegel et al, 1992; Osteraker, 1999). The learning organization model, inasmuch as it represents a holistic approach to connect learning to organizational work relies on both classes of theories, which come together and find outward expression via strong humanist ideals, communitarian values, and systems thinking (Chisholm, 1984; Keep, 2000; Senge, 1990; Willcoxson, 2002).

<sup>6</sup> Abraham Maslow (1970) posited a theory of motivation based on a human hierarchy of needs. The theory postulates that human wants occur in a pecking order of sorts, such that people pursue lower level needs before aspiring to satisfy higher level ones. Accordingly, Maslow identified five levels of needs. Running from lowest to highest they are physiological, security, social, esteem, and self-actualization; as each becomes satisfied, the succeeding level desire turns into a motivator or source of want. For example, the needs in the lowest category (i.e., physiological) dominate a person’s motives until they are sufficiently fulfilled, and then those in the next-highest category dominate, and so on up the hierarchy. The self-actualization category refers to the need for self-fulfillment; a journey of self-discovery to reach one’s full potential. Maslow argued, moreover, that people are in a constant state of motivational flux (Dessler, 1980). As one aspiration becomes satisfied another always surfaces to the forefront to take its place.

It is important to note that Maslow’s levels of need, while discretely defined are not mutually exclusive. Because they are interdependent and overlapping; higher order desires may emerge as an individual addresses his or her lower order needs (Dessler, 1980: 179). And, on some occasions an individual may ignore lower levels to pursue some higher goal.

<sup>7</sup> The Motivator-Hygiene Theory developed by Frederick Herzberg postulates two groupings of factors that roughly parallel Maslow’s framework. The first set—called hygiene factors—represent tangible items that either cause or prevent dissatisfaction. This includes things such as company policy, supervision, salary, relationships with others, and working conditions. According to the theory, hygiene factors, because they do

not act as personal incentives, cannot motivate people to higher levels of productivity. Thus, hygiene factors do not evoke positive satisfaction. At best, people come to a neutral point on the basis of hygiene factors (Scanlan and Keys, 1979: 230).

The second set, or motivator factors, addresses the psychosocial needs of individuals. As such, motivator factors serve as positive incentives that motivate behavior. This includes intangible things like recognition, feelings of accomplishment, opportunity for advancement, the potential for growth, a sense of importance, and challenging work (Dessler, 1980; Scanlan and Keys, 1979: 230).

<sup>8</sup> Achievement motivation is “the disposition to strive for satisfaction derived from success in competition with some standard of excellence” (de Charms, 1968 cited in Dessler, 1980:183). McClelland examined achievement motivation in job settings to determine the basic motivation patterns of individuals (Scanlan and Keys, 1979:239) relative to their work. After years of research, McClelland developed the need to achieve quotient (n ACH motive), whose value suggests how a person will behave on the job based on a high or low value of n ACH.

In accordance with the theory, people having a high-achievement quotient tend to 1) hunt for and assume a high degree of personal responsibility; 2) take calculated risks; 3) set challenging but realistic goals; 4) develop thorough plans to attain their goals; 5) seek out measurable feedback; and 6) search for opportunities where their need to achieve will not be thwarted (Scanlan and Keys, 1979:239-240).

<sup>9</sup> Self-actualization, the high point of human aspiration, embodies the need to work toward fulfillment and realization of one’s full potentials to accomplish everything one is capable of accomplishing. To paraphrase the US Army slogan, it is the need to “be all that one can be.” In this way, self-actualization is much greater than accomplishing some specific end (Scanlan and Keys, 1979); the process of striving itself—the struggle—is every bit as important to and perhaps more so than the actual attainment of goals. For persons with a high need to achieve, self-actualization is a never-ending course of personal development and finding oneself—it is a constant process of becoming. (See notes 6, 7, and 8).

<sup>10</sup> A team is “a group of individuals who work together to produce products or deliver services for which they are mutually accountable” (Mohrman, Cohen, and Mohrman, 1995: 39).

<sup>11</sup> The sociotechnical systems literature has long promoted a design approach with the self-contained work group as its nucleus (Barko and Pasmore, 1986; Fox, 1995; Mohrman, Cohen, and Mohrman, 1995: 20; Personnel Publications Ltd., 1996; Van Eijnatten, 1993). From the time of its original conception in the late 1940s to today the socio half of sociotechnical system has always connoted the idea of teams (Guzzo, Salas and Associates, 1995). Researchers from the Tavistock Institute formulated the concept as a result of studies of work organization in the British coal mining industry. The

rediscovered “all-in method” resembled an approach to work design used before the advent of mechanization, where squads consisting of eight miners were together responsible for a full cycle in the coal extraction process (Fox, 1995; Van Eijnatten, 1993). The mining crews emphasized participative decision making, transposable job assignments, and group-based pay for production (Barko and Pasmore, 1986; Fox, 1995; Personnel Publications Ltd., 1996), all of which was possible due to the wide range of cross-functional skills located within the group itself. STS researchers found that highly productive teams constantly redesign both their technical methods and social arrangements to arrive at an optimal fit between the two (Orsburn et al., 1990: 70). In every modern sense of the word team, the autonomous work groups observed by the Tavistock researchers exhibited team qualities: they were bounded social entities with shared goals, interdependence among group members, and mutual accountability for outcomes.

<sup>12</sup> This paper treats teams and groups in organizations as one and the same thing. While it is not uncommon to come across authors who differentiate between the two, the distinctions made are arbitrary and appear to be a reaction to the word “group,” rather than an accurate portrayal of earlier theory and research.

For example, Lipnack and Stamps (1997: 41) contend, “While having a purpose is fundamental to all small groups, teams are specifically and deliberately results-oriented.”

Similarly, Ilgen (1995) and his colleagues submit that because of the possibility that a small group may exist purely for social reasons, e.g., a small group of friends, a team is something more than a small group because of its “task-oriented” purpose. They write:

From our perspective, teams share the foregoing characteristics with small groups, with one additional characteristic: teams exist for some task-oriented purpose. They design buildings, plan fundraising campaigns, play basketball games, and so on. ... Teams have explicit goals and with few exceptions, the members of a team have some level of awareness of the team goals. ... The definition of team that most closely captures what we will assume for our discussion is taken from Morgan, Glickman, Woodard, Blaiwes, and Salas (1986:3), who state that teams are “distinguishable sets of [more than two] individuals who interact interdependently and adaptively to achieve specified, shared and valued objectives.” (Ilgen et al., 1995:115)

Clearly, explanations like this one have forgotten about the sociotechnical systems literature and its brainchild, the semi-autonomous work group, whose responsibility for whole tasks is indeed results oriented (see note 9).

While it is an arguable point to suggest that all social (informal) groups do not have a “results orientation,” perhaps the key to reconciliation of the matter rests on the shoulders of context. The point is to compare apples to apples and oranges to oranges, i.e., work



groups and work teams. This also explains an inadequacy sometimes present in sports metaphors when used to elucidate work teams. Differences of purpose between comparators occasionally distort the intended meaning and are for that reason a stretch.

As a final point, it is interesting to note that in the introduction to the book from which the Ilgen passage comes, Guzzo (1995: 2), the primary author states “We make no real distinctions between teams and groups in this book.” For Guzzo it is a practical matter to use the terms interchangeably, since the larger proportion of work falls under the heading of groups—or, as Guzzo submits, “... groups have long been studied and teams are newcomers.” Likewise, in this paper, groups and teams are assumed synonymous terms that each embody the idea of interdependent, mutually accountable sets of people who work together to produce products or deliver services within the learning organization.

<sup>13</sup> Team learning involves dealing with forces (i.e., mental models) that oppose productive dialogue and discussion in working groups (Senge, 1990: 237). Foremost among these forces are entrenched habits or actions that we employ to protect ourselves from the threat or embarrassment that accompanies inappropriate behaviors, unacceptable performance, or revealing our thought processes to others. While these “defensive routines,” as Argyris (1985; 1992) has labeled them, may save face or avoid conflict they also obstruct learning. The source of defensive routines, according to Argyris, starts early in life and comes from the anxiety of being wrong or judged in error by others. Like a protective shell around our deepest assumptions and feelings, defensive routines defend us from the perceived pain of exposing the thinking that lies behind our views. To reduce these defense mechanisms, teams must critically examine their own reasoning processes and actions, with a commitment to tell the truth about what’s going on ‘out there,’ in their business reality,” as well as “what’s going on ‘in here,’ within the team itself” (Senge, 1990: 257). In other words, to be effective the team must learn to examine their own way of thinking in relation to the real problems they experience. Without reflection and inquiry, the team will digress or move off course when defensiveness arises and learning then becomes a product of happenstance.

<sup>14</sup> Deliberations are the processes by which decisions come together and gel (Pava, 1986). Teams study their deliberations to identify discourse of enduring issues that require repeated resolution and preclude arriving at a shared sense of goals and direction. By analyzing sequences of exchanges, encounters, reflections, and communications teams can resolve ambiguities and other problems that hold up work, thereby enabling the unfreezing, change, and refreezing of behaviors needed to support team projects. Pava explains:

Deliberations are not decisions. Decisions are discrete choices whereby some alternative is pursued at the expense of others. Deliberations are more continuous affairs, sequences of activities, from which decisions occasionally crystallize. As such, deliberations provide both the context and the subtext of decisions. ... The concept of deliberations emphasizes

encounters, exchanges and reflections in general that help resolve an equivocal topic (Pava, 1986: 207).

<sup>15</sup> Senge (1990: 10, 247-249) distinguishes between dialogue and discussion, two complementary processes that help team members to learn and to arrive at a shared appreciation of complex issues, events, and courses of action. In a dialogue, there is a high level of listening and communication between people such that individuals suspend their personal assumptions to explore ways to connect and enter into a genuine “thinking together” –but not groupthink (Janis, 1982)! As a process, dialogues are divergent; they do not seek consensus on a single decision track but instead search for a richer grasp of complex problems and issues. Typically, new actions surface as a result of dialogue.

Discussion, on the other hand, seeks closure by converging on some conclusion or action plan after individuals present and defend their views. In other words, a decision is the outcome of a productive discussion. In team learning both discussion and dialogue are necessary elements.

A learning team perfects movement backward and forward between dialogue and discussion, which results in mutual trust and understanding. Accordingly, the group learns the art of graceful debate.

[Team members] develop a richer understanding of the uniqueness of each person’s point of view. Moreover, they experience how larger understandings emerge by holding one’s own point of view “gently.” They learn to master the art of holding a position rather than being “held by their positions.” When it is appropriate to defend a point of view, they do it more gracefully and with less rigidity, that is without putting winning as a first priority (Senge, 1990: 247-248).

<sup>16</sup> While Senge (1990: 139) submits, “organizations learn only through individuals that learn,” he is a strong proponent of the notion that learning is a social process wherein the team, not the person, sets the standard for learning in the organization at large by infusing its shared practices and values system-wide (Marquardt, 1996; Watkins and Marsick, 1993; Mohrman, Cohen, and Mohrman, 1995). When we envisage the learning organization as a system of learning systems, where a system is an entity that contains two or more parts, the smallest learning unit by definition (if by nothing else) is the learning team.

In effect, the learning team is a major catalyst for the processes of integration and control that occur within an organization (Airasian and Walsh, 1997; Davydov, 1990; Shull with Delbecq, 1962). The team, as a microcosm of the larger social system that contains it, bears many likenesses to the surrounding suprasystem and as a consequence, elicits compliance to organizational norms and values through the pressures it exerts on its participants as they work together to achieve shared goals.

To put it another way, a defining factor of a learning organization is its unified vision and the notion of community it educes. Because communitarian interests subjugate individual interests, the learning team stands as the fundamental unit of measure in a learning organization.

<sup>17</sup> According to Wren (2005: 313), Chester Barnard was “a sociologist of organizations without portfolio” who epitomized the “Horatio Alger ideal of the farm boy who made good”. Over the course of his lifetime, this “Harvard drop-out” went on to write *The Functions of the Executive* (Barnard, 1938), the first in-depth analysis of organizations as cooperative systems as well as earn seven honorary doctorates for his work in the field of management (Wren, 2005: 314); scholarly contributions that many people feel have stood the test of time and are still relevant after all these years (Andrews, 1968; Chandran, 1999; Joonas, 2004; Rabin, 1994).

Taking stock of his intellectual legacy and its continuing role in the literature of the field, Wren and Greenwood (1998) offer the following précis of his Barnard’s work:

Barnard, the organizer, saw people in action, not charts and hierarchical pyramids. He drew upon his experiences in business and other endeavors as a participant and as an observer to add the social and human factor to our understanding of organizations. He enriched our understanding of the need to define the purposes of enterprises, to elicit cooperation, and to recognize that managers in all organizations must use their communication and leadership skills to build teamwork and cooperation.” (p. 196)

<sup>18</sup> Barnard (1938) posited that there is an unconscious psychological mechanism called a “zone of indifference” that enables cooperation and allows an individual to follow orders (Rabin, 1994; Rhee and Sigler, 2005). Everyone has a different zone of indifference. According to Barnard,

The zone of indifference will be wider or narrower depending upon the degree to which the inducements exceed the burdens and sacrifices which determined the individual’s adhesion to the organization (p. 169).

<sup>19</sup> For the purposes of this paper, a dialectical exchange is an intellectual exchange of ideas and the attendant understanding that occurs through discourse and “sensemaking” (Weick, 1995). Personal mastery, as a dialectical exchange, is an ongoing process of personal discovery that unfolds over a lifetime via the interplay of two components: (1) knowing oneself and (2) growing through our contact and relationships with other people (Cameron and Kearns, 2002: 3-4; Delors et al., 1996).

The discipline of personal mastery, while very individualized, also underscores the social aspects of learning. Accordingly, knowledge develops as an individual learner builds and interprets his or her own understanding of reality (Brooks and Brooks, 1993; Driscoll, 1994; Stage et al., 1998; Steffe and Gale, 1995) and as process of integration or acculturation through an individual’s interaction within a social milieu (Airasian and

Walsh, 1997; Davydov, 1990). In the context of the workplace, PM is an important catalyst for creativity and innovation, inasmuch as it is an enabler for openness to new ideas as well as the synergetic effects of combining knowledge. Cameron and Kearns (2002) summarize the benefits of the PM discipline as follows:

- 1) A better ability to work with others;
- 2) An enhanced capacity for ongoing growth and development; and
- 3) Receptivity to new ideas (p. 4).

<sup>20</sup> While Senge (1990) concedes that individual learning alone does not herald organizational learning, the presence of individuals who learn is a necessary condition for OL to occur. He writes:

Organizations learn only through individuals who learn. Individual learning does not guarantee organizational learning. But without it no organizational learning occurs (Senge, 1990: 139).

<sup>21</sup> In beginning with its very optimistic set of assumptions about people and work, there is a general tendency in the LO literature to dodge or discount these environmental effects, which is in certain violation of the “systems thinking” discipline. It is striking to note the omission of topics such as trust, loyalty, corporate greed, downsizing, restructuring, budget cuts, outsourcing and the like from the index of *The Fifth Discipline*. Although Senge (1990) addresses the impact of these issues indirectly in his discussion of mental models and how said schema can torpedo efforts to foster systems thinking and management’s best laid plans to create learning organizations, the matter of impediments is an area of research that many LO advocates fail to address in sufficient fashion. Interestingly, this topic has proven a fruitful area of scholarly endeavor for members of the OL camp, who remain skeptical about the LO’s “meaningfulness, feasibility, and beneficence” (Argyris, 1999: 13; Coopey, 1998; Easterby-Smith et al, 1998; Symon, 2003). There is a dire need to build bridges between both literatures. Parenthetically, in the chapters on the culture thread and learning thread, respectively, we look at the role of mental models and the problems associated with barriers to learning in organizations.

<sup>22</sup> Knowledge is a central resource for individuals, organizations, and society (Houghton and Sheehan, 2000). To all intents and purposes, it is fundamental for action, performance and adaptation; it provides the ability to respond to new and unusual situations; and it offers the only sustainable competitive advantage (Halal, 1998; Marquardt, 1996; Nonaka and Takeuchi, 1995; Newman, 1996; Senge, 1990). Given that knowledge comes from learning, a key implication of the knowledge economy is that the road to prosperity is paved with learning (Frederick and McIlroy, 1999; Halal, 1998; Houghton and Sheehan, 2000; OECD, 1996b). This is why developed countries around the globe have embraced lifelong and lifewide learning as a strategy for prolonged economic growth (Watson, 2001: 3).

People learn throughout their lives and from all aspects of life (Commission of the European Communities, 2000). Based on this certainty, lifelong learning refers to the former. Conceptually, it draws attention to the temporal aspects of learning over the course of a lifetime (i.e., from cradle to grave), either continuously or periodically (Ibid).

Lifewide learning, on the other hand, refers to the “spread of learning,” which can occur across “the full range of our lives at any one stage in our lives” (Commission of the European Communities, 2000: 9; National Agency of Education, 2000). It is as such a facet of lifelong learning. The lifewide dimension highlights the complementarity of formal, non-formal and informal learning as explained below.

[Lifewide learning] reminds us that useful and enjoyable learning can and does take place in the family, in leisure time, in community life and in daily worklife. Lifewide learning also makes us realize that teaching and learning are themselves roles and activities that can be changed and exchanged in different times and places (Commission of the European Communities, 2000: 9).

<sup>23</sup> Diffusion of responsibility, social loafing and sucker effects are impediments to the effectiveness of a team’s functioning and results. Diffusion of responsibility occurs when team members fail to act because each assumes that it is under someone else’s purview to take the initiative to do a job. A good example of this phenomenon is the timeless parable about four hapless persons, *Everybody*, *Somebody*, *Anybody*, and *Nobody*, and the job that did not get completed.

This is a little story about four people named Everybody, Somebody, Anybody, and Nobody. There was an important job to be done and Everybody was sure that Somebody would do it. Anybody could have done it, but Nobody did it. Somebody got angry because it was Everybody’s job. Everybody thought that Anybody could do it, but Nobody realized that Somebody wouldn’t do it. It ended up that Everybody blamed Somebody when Nobody did what Anybody could have done (author unknown).

Social loafing—also called the free rider effect—refers to team members who violate group standards of equity, social responsibility and/or reciprocity (Albanese and Van Fleet, 1985; Caldwell, 2005a; Hellriegel et al, 1992; Schnake, 1991). In other words, an individual or individuals receive equal credit as other members, but, in fact, failed to pull their weight or bear a proportionate share of the responsibility for the group’s work.

The “sucker effect” is a reaction to social loafing. It occurs when one or more individuals in a group deliberately withhold effort out of fear that free riders are taking unfair advantage of the situation (i.e., making suckers out of them).

## Chapter 4

### THE CULTURE THREAD

The culture of an organization embodies the shared beliefs, values, assumptions, meanings, and norms that shape and govern workplace behavior (Schein, 1997). Cultural processes reflect and reinforce much of what takes place in organizations. Today there is widespread agreement that the culture of an organization is imperative to its performance (Alvesson, 1993). Yet, at the same time, culture is an elusive, “complex and frequently misunderstood” (Davis, 1984:1) phenomenon, which explains in part why the LO concept has been so difficult to operationalize and sustain. The *Culture Thread* traces the historic roots of two disciplines, *Shared Vision* and *Mental Models* to better understand how these socially constructed artifacts shape the contours of the learning organization.

#### Unraveling the threads of the Learning Organization<sup>1</sup>

You Are Here	Conceptual Threads	Senge’s Five Disciplines
	A. The Systems Thread	Systems Thinking
	B. The Human Relations Thread	Personal Mastery Team Learning
⇒	C. The Culture Thread	Shared Vision Mental Models
	D. The Learning Thread	Personal Mastery Team Learning
	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
	F. The Structural Thread	Systems Thinking

Figure 4-1

## *Introduction*

All throughout human history cultures have passed on knowledge and guidance considered necessary for the species to collectively adapt and survive (Geertz, 1970; Trice and Beyer, 1993:3). To preserve the social order and to supplement what the genetic code does not provide, civilizations have developed mores, traditions, and other such protocols—i.e., cultural codes—because “we are, in sum, incomplete or unfinished animals who complete ourselves through culture” (Geertz, 1970:61).

Similarly, an organization by means of accumulated learnings over time creates and perpetuates social stability through its culture. Organizational culture (OC), like any other culture, evolves as groups of people jointly interact and experience events. As the aggregate of common values, beliefs, and assumptions that bind a social collectivity together (Schein, 1997), OC provides a base of continuity around which an organization functions and evolves (Oden, 1999). Organizational culture is a “symbolic phenomenon of reality construction”; a channel that members use to sense and grasp specific happenings, “actions, objects, utterances, and whole situations, including their own behaviors, in an acceptable way that is sensible and meaningful” (Lundberg, 2000:701).

Widely referenced in the academic literature, business journals, and popular periodicals alike (Stupak, 1998), the panoply of common consent sees the culture of an organization as something important to its success (Alvesson, 1993; Scholl, 2003). However, notwithstanding the universality of this notion, the link between an organization’s culture and effectiveness is “far from certain” (Kilmann, et al, 1986; Scholl, 2003).

A victim of its apparent inexactitude and ambiguity, culture suffers from a high degree of abstraction and misunderstanding (Davis, 1984:1; Halley, 1998). No one definition of OC has emerged in the literature due to diverse perspectives on epistemology (Halley, 1998; Scholl, 2003),<sup>2</sup> and as a result, conceptual characterizations vary by field or community of practice (Ingold, 1994; Wilber, 1996); by type and level (Hofstede, 1993; Schein, 1997); by place of socialization (Hofstede, 1993); and by boundary effects (Halley, 1998). Thus, irrespective of its latitudinous use—both in the practitioner press and as a basic theoretical term in the academic lexicon (Halley, 1998), OC is hard to pin down precisely and very often follows Justice Stewart’s famed litmus test for judging obscenity (Gilmour and Jensen, 1998): we know what it is when we see it.

Simultaneously a catalyst for change and an impending barrier to action, culture is the “social energy that drives—or fails to drive—the organization (Kilmann, et al, 1986:92). That is to say, nothing much happens as either intended or anticipated if the culture of an organization does not get onboard to support the organization’s plans and initiatives.

Cultural processes lie beneath and trigger much of what takes place in organizations. From the ways in which people see and comprehend their surroundings to the *dos* and *don’ts* that govern their behavior (Trice and Beyer, 1993), culture embodies an enduring set of assumptions, values, and norms that distinguish a social system (Burke, 1994). Given the vital role of culture in guiding human behavior, the evolution of a learning culture is central to the success of the learning organization.



### *OC Origins and Current Popularity*

Few academic concepts have received the same notice as that presently accorded to organizational culture<sup>3</sup> (Eisenberg and Riley, 2001). Both theoretical and practical concerns are behind the heightened interest in the topic.<sup>4</sup> Notwithstanding the culture boom of the last few decades however, organizational culture is “a phenomenon that has always existed” (Lundberg, 2000:703); almost seventy-five years of study pre-dates its current attention (Alvesson, 1993; Davis, 1984; Trice and Beyer, 1993). Since the 1930s, there has been a small but continuous stream of research on organizations from a cultural point of view (Trice and Beyer, 1993:xiii).

Many people cite Chester Barnard (1938) and his classic work, *The Functions of the Executive*, as the forerunner of the “organization culture” idea (Mrozowski, 2001:33; Louis, 1985; Ott, 1989).<sup>5</sup> Others, such as Trice and Beyer (1993) note that the Hawthorne Studies of the 1930s involved an anthropologist and included observations of work group cultures.<sup>6</sup> Nevertheless, it was not until the late 1970s, that the term organizational culture first made its debut in the organization theory scholarly press.<sup>7</sup> Since this time increasing numbers of researchers and practitioners have found the concept indispensable both to study and to manage organizations<sup>8</sup> (Schein, 1997:xi).

### *Towards a Definition of Learning Culture*

Organizational culture (OC) is a concept that conveys an array of different meanings to different people (Isaac, 1993:91). While most people have an intuitive sense both of “organization” and of “culture” (Schein, 1997; Smircich, 1983), a conceptually

clear, exhaustive definition is hard to articulate and even harder to render unanimity— alas, there is no one widely accepted depiction of organizational culture. Consequently, definitional diversity pervades the OC literature reflecting a host of assorted connotations and assumptions brought together in various and sundry ways (Ahmed et al., 1999; Alvesson, 1993; Isaac, 1993), as demonstrated by some of the perspectives noted below.

- Organizational culture as a “critical variable” and as a “root metaphor” (Morgan, 1996; Smircich, 1983).<sup>9</sup>
- Organizational culture as an umbrella concept for social processes, stories, language, rituals, beliefs, and symbolic phenomena (Alvesson, 1993; Beyer and Trice, 1987; Deal and Kennedy, 1982; Schein, 1996; 1997).
- Organizational culture as a source of competitive advantage (Deal and Kennedy, 1982; Peters and Waterman, 1982), superior performance (Alvesson, 1993; Roskin, 1986), and as a “primary determinant of change and improvement” (Ahmed et al., 1999:S433).
- Organizational culture as a manageable (changeable) entity or product of leadership (Barnard, 1938; Bennis, 1984; Bright, 1993; Oden, 1999; Peters and Waterman, 1982; Tichy and Ulrich, 1984).
- Organizational culture as a soft complement to hard data (Barnard, 1938; Kleiner and Roth, 1998:145; Oden, 1999:69).
- Organizational culture as a value system (Wiener, 1988).
- Organizational culture as a conceptual bridge between micro- and macro-levels of analysis (Smircich, 1983).
- Organizational culture as the accumulated shared learning of a given group (Schein, 1985; 1997; Senge, 1990) and as an “underappreciated influence on organizational learning” (Mahler, 1997: 519).
- Organizational culture as an ongoing, proactive process of reality construction by means of enactment and retrospective sensemaking (Weick, 1995).

Notwithstanding epistemological differences, most of these perspectives cluster around a common view of culture as the sum of group norms, espoused values, climate,

symbols, shared meanings, language, customs, traditions, and rituals that govern social behavior in the organization. Together these elements imply some level of structural constancy, membership, cohesion, and shared experience in the group. In general, organizational culture embodies a communal and learned world of experiences, meanings, and values that inform human behavior (Alvesson, 1993:2) –it is the system of informal rules that dictate how people are to behave most of the time (Deal and Kennedy, 1982:15). Formally defined, the culture of a group is:

A pattern of shared basic assumptions, learned through socialization and solving problems of external adaptation, passed on to new generations of group members as the correct way to see, think, feel, and behave (Schein, 1997: 12).

In LO parlance, an organization's culture is an outgrowth of its members' mental models (Senge et al., 1994: 27), from which a shared vision emerges. Mental models act as a filter through which people observe and perceive their world. The common understanding of core meanings that materialize as coworkers perform and engage their mental models to deal with the ambiguities of worklife both binds them together as a group and provides a set of protocols to express and affirm the organization's beliefs, values, and norms. This shared view—the collective repertoire of successful patterns of behavior, ideologies, principles, goals, rites, rituals, artifacts, and assumptions that members use to carry out their organizational way of life is the equivalence of the organization's culture.

On the whole the culture of an organization has a holographic quality to it such that the shared systems of logic ingrained in the whole pervade and influence all of its parts (Morgan, 1993; 1996). As a consequence, prevailing beliefs, values, and norms are

accepted, internalized, and acted upon at every level of the organization. In a similar respect, the values that set apart a learning organization –“mutuality, collaboration, curiosity, and reflection” (Senge et al., 1999: 424) –are encoded in its psychosocial fabric; they are a driving force behind everything the LO does. Thus, the attitudes, tendencies, values, beliefs, and social practices that distinguish a learning organization also distinguish its individuals and groups.

According to Schein (1997: 10), the most useful way to conceive of culture is to look upon it as the accumulated shared learning of a given group, where shared learning encompasses the group members’ total psychological functioning.<sup>10</sup> For shared learning to occur, Schein argues that:

There must be a history of shared experience, which in turn implies some stability of membership in the group. Given such stability and a shared history, the human need for parsimony, consistency and meaning will cause the various shared elements to form into patterns that eventually can be called a culture (Schein, 1997: 10).

Thus, for Schein the deeper levels of learning that derive from a common system of communication, mutual history, similar experience, and cognate meanings—to wit, the shared basic assumptions of a group—are the essence of culture. In general, any established group has a culture when it has had enough of a shared history to form a set of shared beliefs. Expressed as an equation:

$$\text{Culture} = \Sigma \text{ Shared Group Learnings} = \Sigma \text{ Shared Basic Assumptions of the Group}$$

[Where: *Shared Group Learnings* =  $f(\text{Accrued history, beliefs, experience, \& meanings})$ ]

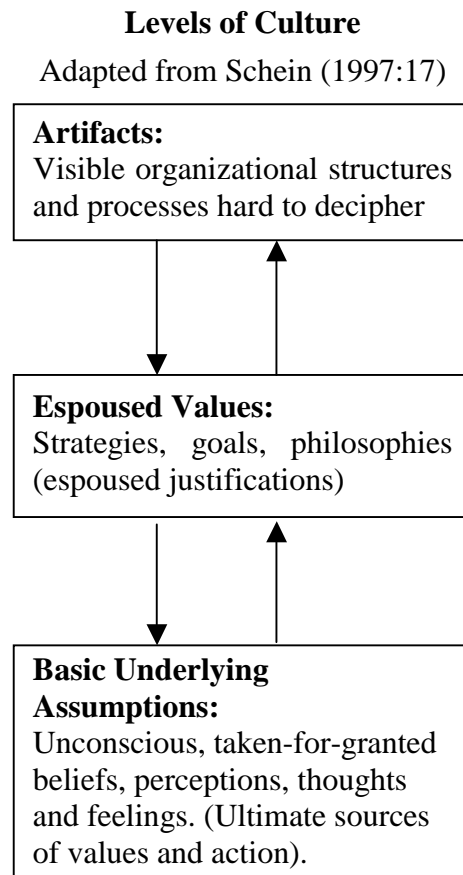
Shared assumptions emerge and operate outside conscious awareness over time. Moreover, once formed and taken for granted, they become a defining property of the group that permits the group to differentiate itself from other groups (Schein, 1997: 13). And, as a result of the evolving, socially constructed nature of this process, there is general agreement among organization theorists that every organization has a unique culture<sup>11</sup> (Burrell and Morgan, 1979; Oden, 1999; Putnam, 1983; Schein, 1997).

Culture exists at a variety of levels and is discernible in a broad range of features of organizational life (Detert et al., 2000; Hofstede et al., 1990; Lundberg, 2000; Pettigrew, 1990) that achieve expression through overt and implicit means.<sup>12</sup> Schein (1997) argues, for example, that there are three different levels of culture: (1) Artifacts, (2) espoused values, and (3) basic underlying assumptions as shown in Figure 4-2 below.

Beginning at the surface level, artifacts are visible demonstrations of the organization's way of life. This includes such things as language, manners of address, observable rituals, and the organizational processes into which such behaviors occur. The most important point about these kinds of overt manifestations of culture is that they are "easy to observe and difficult to decipher" (Ibid.) In other words, while it is possible to describe each artifact, it is not possible to ascribe from that artifact alone, what meaning it holds for the group.

Mining down past the surface is the second level of culture, espoused values. Espoused values are the articulated strategies, goals, and beliefs of the group, such as those embodied in organizational philosophy. Although values at this conscious level serve the normative function of guiding group behavior, espoused values are not

necessarily congruent with underlying assumptions and actual behavior. Consequently, we cannot predict future behavior based on espoused values. As Argyris and Schön (1996) suggest, what people profess to do and what they actually do is not always the same.<sup>13</sup>



**Figure 4-2**

Level three, underlying basic assumptions, are unconscious, taken-for-granted beliefs that guide human behavior (i.e., theories-in-use). Underlying assumptions vary little within a cultural unit and are very difficult to change.<sup>14</sup> For this reason the essence of culture rests on the pattern of basic assumptions and the associated learning processes

by which these assumptions emerge. To understand the nature of an organization's culture, it is essential to look beyond the surface level of artifacts to the underlying core assumptions, for therein lies the real source of values and action.

Because culture is the embodiment of what really matters to an organization (Oden, 1999: 68), many people regard culture as the “social glue” that holds the organization together (Alvesson, 1993; Golden, 1992; Smircich, 1983; Oden, 1999; Schein, 1997; Siehl, 1985). For the learning organization, what matters most is the collective will to learn *ad infinitum* and that the total enterprise “continually expand its capacity to create its future” (Senge, 1990: 14). High-commitment, top performance, and excellent quality goods and services are the natural by-products of an organization whose culture values continuous learning (Mohrman and Cummings, 1989; Sherwood, 2000).

Sherwood (2000) suggests that workplaces with learning cultures exhibit several defining characteristics, among which are the use of cross-functional, boundary-spanning, self-directed, interdependent teams; an empowered, dedicated staff; a strong sense of purpose that runs throughout the organization; a knowledge-seeking mindset; and a sociotechnical design that integrates people with technology. In such organizations,

There is *energy, learning, and quality*. The work itself is a source of enthusiasm. The customer receives value—high-quality products (or services) within promised delivery schedules. Management gets reliable output with low absenteeism. Unions gain employment stability for their members. Employees find their work a source of expanded self-esteem. Vendors are viewed as essential parts of the work system, and they become collaborators in the service of the customer. These work systems are successful in the competitive marketplace because they are competent, committed, and flexible (Sherwood, 2000: 924).

### *Evolving a Learning Culture and the Transformational Leader*

The question of whether or not it is possible for a leader to change the culture of an organization is one for which there are three main camps: the *yes* community who believes it is possible, those others who emphatically say *no*, and everyone else that falls somewhere in-between. The crux of the matter is an issue of perspective, whether organizational culture stands as a “root metaphor” or as a “critical variable” (Morgan, 1996; Smircich, 1983) –or to put it as Meek (1988: 459) succinctly frames the argument, either organizations *are* cultures or *have* cultures.

### *An Organization-As-Culture*

Researchers that proceed from the organization-as-culture idea argue that “organizational culture is not just another piece of the puzzle, it is the puzzle” (Pacanowsky and O’Donnell-Trujillo, 1983:146). This view is “all-encompassing” and approximates the approach taken by the cultural anthropologist, a form of inquiry that tends to include all aspects of social life as part of culture (Trice and Beyer, 1993). The promise of the organization-as-culture metaphor is to yield a richer, more holistic understanding of organizations and work life; one not subordinated to managerial interests (Alvesson, 1993: 6). These researchers argue that since culture is a socially constructed system of shared beliefs and values, it is “preposterous” to think leaders create culture (Meek, 1988: 459; Weick, 1993) and “inconsistent to think of systematically managing or attempting to control the phenomenon” (Siehl, 1985: 125). For these investigators the key concern is instead to acquire an appreciation of the organization as a network of symbols and meanings, insights that come about only by



exploring the study target as “subjective experience” (Smircich, 1983). Accordingly, this viewpoint rests on a number of beliefs about organizations and human behavior that are decidedly different from the rival theory. These include:

1. Much of what happens in organizations is largely unpredictable, inconsistent, and/or not easily controlled.
2. Ambiguity and uncertainty challenge traditional tools and approaches for problem solving and decision making.
3. People in organizations develop cultures as they interact and share ways of managing and coping with uncertainties (Lundberg, 2000: 703).

Therefore, as one prominent representative of the organization-as-culture perspective concludes,

Cultures are not that easy to change, nor are they the exclusive property of people at the top. As ideas diffuse through the organization, control also becomes diffused since people now adopt similar premises for their decisions (Weick, 1993: 367).

What then does the organization-as-culture standpoint imply for the aspiring learning organization? It is an important reminder of the many management cure-alls in good currency right now that do not live up to their promise due to a quick-fix mentality and the absence of a systems point of view (Ackoff, 1998). The caution for the wannabe learning organization is that neither a learning mindset nor a learning culture is something that a leader orders up, “like items on a restaurant menu” (Schein, 1996). Rather, the evolution of a learning culture develops over time from the collective social interactions of groups and communities that experience the benefits of learning together—and of which the leader is part.

## *An Organization has Culture*

To those researchers that conceive of culture as something an organization has, the phenomenon is a manageable entity, at least to some extent (Siehl, 1985). Advocates of this perspective proceed from the assumption that there is a linkage between culture and performance (Alvesson, 1993). Therefore, culture offers a powerful means of implicit control through which more effective managerial action is possible. In other words, by manipulating manifestations of culture—to wit, symbols, rites, values, norms, etc.—culture becomes a tool for the organization to exploit to achieve some desirable result. Likewise, the flip side of the culture-performance coin suggests that a leader can change organizational culture through direct, deliberate acts, not unlike those used in any other management initiative (Peters and Waterman, 1982; Deal and Kennedy, 1982; Kilmann, 1982; Trice and Beyer, 1993).

For example, Warren Bennis (1984) and Tichy and Ulrich (1984) have called a transformational leader one that can totally transform an embedded organizational culture by creating a new vision for an organization and successfully selling that vision to its members. Accordingly, Oden (1999) suggests that the transformational leader is essential to instigate any kind of cultural makeover; “transformative intent” starts with a top individual that can infuse the organization with the desired mindset, and then fan the cultural fires to keep the change effort burning brightly.<sup>15</sup>

Along these same lines, Deal and Kennedy argue that it is possible to change corporate culture,

But to do that, top management first has to recognize what kind of culture the company already has, even if it is weak. The ultimate success of a chief executive officer depends to a large degree on an accurate reading of the corporate culture and the ability to hone it and shape it to fit the shifting needs of the marketplace (Deal and Kennedy, 1982: 18).

Of the two perspectives on organizational culture, the organization-has-culture position is perhaps the more popular viewpoint (Alvesson, 1993), as evidenced by the vast and ever-growing body of practitioner literature on a variety of different management concerns. Particularly germane to this discussion, much of the how-to literature on becoming a learning organization emphasizes the importance of having a transformational leader at the helm (e.g., Beckhard and Pritchard, 1992; and Braham, 1995). Likewise, a good deal of the quality literature also embraces the view that culture is something that is both manageable (Bright, 1993: 24)<sup>16</sup> and alterable by an adept leader with a clear understanding of the existing organizational climate and its mores.

*Finding A Middle Ground  
(Leadership, Mental Models, and Shared Vision)*

So, who is right: is culture something an organization *has* or is culture something an organization *is*? Both positions clearly have *some* validity. On the one hand, cultures are undoubtedly resistant to change—especially to changes that do not emerge from within the cultural body (Trice and Beyer, 1993). Then again, cultures *do* change, and sometimes that change occurs as the result of deliberate, planned interventions (Ibid.).

Siehl (1985) suggests that the most fruitful approach to solving the culture conundrum falls somewhere in between the unequivocal yes and no stances posited by each side. Likewise, Alvesson (1993: 6) submits that the two views need not be mutually

exclusive—deep reflection on an organization’s culture may in fact show ways of promoting more effective behavior. And, at the risk of being somewhat self-indulgent and completely facetious, if conceived from a mathematical perspective the laws of set theory help settle the debate; the question of whether an organization *is* culture or *has* one is a false dichotomy because every set is a subset unto itself.<sup>17</sup> In other words, if an organization is culture then it follows that it has a culture as well since the organization is a subset of itself (see note 17).

No less creative in his approach, Senge (1990: 339-360) also reconciles the two sides to some degree through systemic thinking and redefinition of the leadership role in the learning organization. As an alternative to the traditional Western perspective of the leader as rescuer, redeemer, champion, and all-around knight in shining armor<sup>18</sup>, Senge’s idea of leadership concentrates on “subtler more important tasks.” Hence, in lieu of the mythical hero leader who “rises to the fore” in times of trouble, the leader of a learning organization is a “steward, teacher, and designer” with the charge to arouse everyone to learn together and continuously expand their capacity to create a bright organizational future. Senge maintains that this revised way of thinking is imperative because

When all is said and done, learning organizations will remain a “good idea,” an intriguing but distant vision until people take a stand for building such organizations. Taking this stand is the first leadership act, the start of inspiring (literally “to breathe life into”) the vision of learning organizations. In the absence of this stand, the learning disciplines remain mere collections of tools and technique—means of solving problems rather than creating something genuinely new (Senge, 1990: 340).

In summary, somewhere in-between the two extremes many theorists have found “the truth” –a realistic middle ground perspective on organizational culture that benefits

from both the anthropological approach and a managerial point of view. For any organization that hopes to become a learning organization, the key lesson from the debate is this: cultural change is an enormous task (Morgan, 1996) that, from a systems vantage point, is only partially shaped by leader behavior (Schein, 1996). Ultimately, the role of a change agent is to enable the culture of an organization to evolve<sup>19</sup> through learning, where learning involves a voluntary, collective, “fundamental movement of mind” (Senge, 1990: 13); an unearthing of internal views of the world, engagement in “learningful” dialogue, and developing shared images of the future that foster commitment rather than compliance.

While it is highly improbable that a leader can transform a culture into a learning culture by mandate or wishful thinking, (s)he can sow the seeds for learning and remove the inhibitors to its development that lie in wait in the systemic structure of the organization. In other words, a prerequisite to growing a learning culture is the creation of an organizational environment that is safe and genuinely conducive to learning (Garvin, 1993). Eventually then, the learning, validation, and reinforcement of a shared set of assumptions becomes ingrained in the ethos and practices of the whole organization and in so doing provides a shared framework of cognitive, behavioral, and affective responses (Choo, 1998) for *all* members *all* the time.

Change is an act of choice. As the old saw suggests, you can lead a horse to water but you cannot make him drink. Not unlike the equine, an organization’s culture can choose or not choose to quench its thirst, be it the thirst to learn and develop or the desire to do anything else for that matter. It all depends on past events and cumulative learnings

(i.e., collective mental models) and how these guide actions over time via mutually evolving systems of beliefs (i.e., a group's shared vision as disclosed through its emergent assumptions, values, norms, goals, and observable displays of successful behaviors).

### *Limitations*

The *Culture Thread* with its emphasis on “mental models” and “shared vision” sharply focuses our attention on the processes of socialization<sup>20</sup> that occur within organizations to indoctrinate members in the guiding canon of the enterprise—namely, the values, norms, and other such protocols that define what behavior is and is not appropriate in the workplace (Akella, 2003; Fogarty, 1992; Schein, 1960; 1978; 1997). In a learning organization this process of socialization asks that actors surrender their autonomy in exchange for membership in a learning culture; a democratic “community of commitment” (Kofman and Senge, 1995) “not based on power and opportunism ... but [built instead] on the highest form of human affection and mutual respect” (Driver, 2002: 38).

A number of authors find this utopian vision very troublesome and criticize the LO literature for its failure to acknowledge the role of power, politics and control in organizations (e.g. Akella, 2003; Coopey, 1998; Dovey, 1997; Easterby-Smith et al, 1998; Kenney, in press; Schein, 1999; Willmott, 1993a). Noting the great potential for abuse, many liken LO to a form of “hegemonic programming” (Willmott, 1993a: 535) or brainwashing (Schein, 1999) that “seeks to shape and regulate the unconscious strivings” of its members (Akella, 2003: 47). For example, Edgar Schein (1999) finds the espousal

of empowerment and the cultural change needed to support it suspect, equating it to a form of coercive persuasion.

The effort to empower people, to make them generative learners so that the organization can become more productive and creative is typically described as a “cultural change” in that the traditional bureaucratic norms or command and control systems are believed to discourage individual creativity. But, paradoxically, when we speak of “culture change” in organizations we are typically demanding levels of cognitive redefinition that can probably only be achieved by some version of coercive persuasion (Schein, 1999: 169).

Others argue that the notion of learning by all, which is at the heart of the LO vision is a fallacy because a dominant coalition sets the tenor and agenda for what kind of learning is acceptable in the organization (Coopey, 1995; Driver, 2002; Duncan and Weiss, 1979; Easterby-Smith, 1997).

In short, to many of its critics, LO is not a workplace of loving cooperation, self-actualization, and democratic participation; rather it is a psychic prison characterized by deception, manipulation, and exploitation, with few opportunities to escape (Driver, 2002; Schein, 1999). In the words of one staunch opponent:

The ‘learning organization’ is naught but a Hawthorne light bulb with a dimmer switch, intended to stimulate productivity regardless of its chameleon brilliance. It is a Machiavellian subterfuge. It is a pimp, and the employees, the hapless prostitutes (Armstrong, 2000: 359).

### *Summary*

The purpose of this chapter has been to trace the intellectual roots of two disciplines, mental models and shared vision, where the former embodies the deeply ingrained assumptions or mental images that influence how we see the world and act and

the latter is a unified perspective of the future that emanates from the collective will to learn and a commitment to a common cause. Given that the culture of an organization is the set of the shared beliefs, values, assumptions, attitudes, meanings, and norms that shape and govern workplace behavior, there is an obvious affinity between the LO disciplines and the notion of culture. In the language of the learning organization, an organization's culture is an outgrowth of its members' mental models, from which a shared vision emerges.

It is eminently clear from the preceding discussion that organizational culture is a problematic construct. While most people have an intuitive sense of what it is, a conceptually clear, widely accepted, and exhaustive definition has been elusive to find and articulate. Perspectives vary greatly depending on one's point of view and scholarly orientation, as evidenced by the plethora of conceptual characterizations found in the literature. For those researchers who subscribe to the argument that an organization has culture, culture is a variable and the preferred style of inquiry is normal science. In contrast to this, researchers with an anthropological bent tend to see culture as a root metaphor and use interpretivist methods both to explore organization as a "subjective experience" and probe the "patterns that make organized action possible" (Smircich, 1983). This is a significant point because mindset fashions one's approach to culture, i.e., whether or not it is possible for a leader to change the culture of an organization.

To develop a learning culture, management must minimize employee resistance and foster a safe environment that supports learning (Akella, 2003; Chang and Lee, 2001). That many projects to implement the LO framework have been less than



successful underscores an important organizational fact of life and major shortcoming of the model: cultures are not that easy to change nor are they the sole province of people at the top (Weick, 1993) –an observation which lends some credence to critics’ claims that the LO literature has not dealt sufficiently with the role of power, politics, and learning impediments (Akella, 2003; Coopey, 1998; Easterby-Smith et al, 1998).

In Chapter 5, *The Learning Thread*, we explore the question, “What is an organization that it should learn?” (Argyris and Schön, 1996) and consider how history preordains the current state of the LO intellectual landscape. As the reader will discover, Chapter 5 reveals a number of conceptual problems that subvert the relevance, effectiveness, and feasibility of the learning organization idea, thus lending critical and illuminating insight into why so many LO implementation projects fail to live up to the lofty expectations of their proponents.

## NOTES

<sup>1</sup> This “map” serves two purposes. (1) It reminds the reader where we are in our approach to trace the historic roots of the learning organization. (2) It provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

<sup>2</sup> Halley (1998) notes that in the social sciences, there are a number of different ways of knowing culture. Accordingly, most definitions cluster around content, process, or effect, as she explains below.

As content, ... culture is ... that complex whole that includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society. ...

As process, culture has been defined as ways of learning and knowing or collective cognition (Mintzberg, 1990). ...

As effect, ... culture ... is a system of constraints and limits on individuals (Pfiffner and Sherwood, 1960); the provision of meaning and rules for social action (Outhwaite and Bottomore, 1993); the development of collective perspective (Mintzberg, 1990); the learned product of group experience (Schein, 1985; Nonaka and Takeuchi, 1995); and the creation of differentiation and diversity of social forms produced by beings of the same or similar genetic type (Outhwaite and Bottomore, 1993) (Halley, 1998).

Similarly, Scholl (2003) observes that because culture is both means and ends, its definition reflects either a process orientation or an outcome orientation. Both approaches, he argues, are important to understanding culture. Defined as a process, he explains, culture shapes the way people act and view their experience (e.g., values, norms, and beliefs); when defined as an outcome, culture lends insight into manifest patterns of behavior (i.e., “The way we do things around here”) (Scholl, 2003).

<sup>3</sup> Organizational culture has been a “hot topic” since the latter part of the twentieth century (Clegg and Hardy, 1996). As Eisenberg and Riley explain:

[The] organizational culture concept exploded in the media through stories in *Business Week* and *Fortune* magazines, as well as in enormously popular business books *In Search of Excellence* (Peters and Waterman, 1982) and *Corporate Cultures* (Deal and Kennedy, 1982). Then, in 1983 *Administrative Science Quarterly* (Jelinek, Smircich, and Hirsch, 1983) published a special issue devoted to academic studies of organizational culture and *Organizational Dynamics* created its own special issue, which was also accessible to practitioners. With genuine excitement and a lot of hype, organizational culture became both a part of the language of the

business world and a flourishing stream of academic research (Eisenberg and Riley, 2001: 294).

Today very much a part of the “folk taxa” of everyday organizational life (Eisenberg and Riley, 2001: 291), popular discourse on organizational change is peppered with such statements as “The culture here won’t allow us to...” and “We need to create a new culture.” Moreover, as Oden (1999: 69) points out, a key reason cited for the failure of many organizational change efforts to take hold can be reduced to one sentence: “The culture of the organization remain unchanged.”

<sup>4</sup> For example, some pundits suggest that its current popularity is the result of a search for new management models—a response to the attending frustration of an over dependence on mechanistic perspectives and the domination of positivistic thinking in Western organization theory (Alvesson, 1993; Davis, 1984; Lundberg, 1985; Weick, 1987). As such, many theorists have experienced this situation as an “intellectual straitjacket” (Alvesson, 1993: 3); creatively cramped and conceptually confined by the rule of quantitative methods that often fail to deliver a profound understanding of complex social phenomena (Yin, 1994) in a contextual and holistic way (Bryman, 1988; Ragin, 1987). Cultural research, by contrast, is more “practitioner-friendly” (Barley, Meyer, and Gash, 1988); it poses a useful option to traditional study methods because it both fosters critical thinking and illuminates the social factors that underlie organizational life and work (Alvesson, 1993). A staple in the literature, therefore, has been studies that explore the link between performance excellence and culture, as organizations seek to uncover the whys and wherefores of how their entrenched values and beliefs systems either serve to help or hinder their ability to meet conditions posed by the environment.

<sup>5</sup> According to Barnard (1938: 115), “there are informal organizations related to formal organizations everywhere,” which he describes as “aggregates of personal contacts and interactions.” The essential functions served by the informal organization are that of communication and cohesiveness (Barnard, 1938), through which the informal organization performs an indispensable integration function by helping new members to assume the social patterns of the organization. These insights about informal organizations depict the basic roles that many contemporary scholars now attribute to organizational culture.

<sup>6</sup> What started out as routine experiments in scientific management, the Hawthorne Studies produced curious results that were contrary to the investigators’ starting assumptions. Much to their surprise, the researchers discovered that work group norms affected productivity more than varying job conditions. The failure of scientific management to explain the observed results motivated the researchers to turn to the field of behavioral science for some answers. Subsequently, Elton Mayo, a faculty member in the Harvard Business School, joined the team as a consultant to lend his expertise to the program of ongoing study. Mayo, in turn, persuaded the business school dean to allow him to employ W. Lloyd Warner, then a young assistant professor from the anthropology

department, for the purpose of adapting anthropological methods to the study human behavior at the Western Electric Plant (Trice and Beyer, 1993).

According to Trice and Beyer (1993: 23-27), this is the first time this sort of approach was used in a work organization. Largely because of Warner's influence, a new phase in the Hawthorne Studies began, which incorporated anthropological methods of observation and interviewing. In particular, Warner focused on how work group cultures influenced employee behavior and productivity in a specific work setting. This chapter in the Hawthorne Studies (i.e., the bank wiring room observation study) marked the first well-publicized cultural account of peoples' behavior in the management literature (Roethlisberger and Dickson, 1939; Trice and Beyer, 1993: 25).

<sup>7</sup> A number of authors suggest that the original use of culture in the organization literature appeared in a piece by Andrew Pettigrew (1979) entitled, "On Studying Organizational Cultures" (Alvesson and Berg, 1992; Kotter and Heskett, 1992; Mrozowski, 2001; Reichers and Schneider, 1990). In this article, Pettigrew also submits that he is the first to integrate culture into the theoretical lexicon of organization theory:

[The] overall purpose of this paper has been to highlight in the language of social process some of the more cultural and expressive aspects of organizational life by introducing and illustrating some concepts widely used in sociology and anthropology but which have not yet been integrated into the theoretical language of organizational behavior (Pettigrew, 1979: 579-580).

<sup>8</sup> Depending on one's perspective, organizational culture is either something that an organization has or it is something that an organization is (Bright, 1993: 23). For those in the former camp, organization culture is a set of manageable variables; for those in the latter group, culture is an emergent phenomenon to study that arises from the social interaction of organizational members. Despite an apparent lack of paradigm consensus in the organizational culture literature (Martin and Frost, 1996), there is widespread agreement that organizational culture is important (Clegg and Hardy, 1996).

<sup>9</sup> In an oft-cited overview of the significance of culture organization studies, Smircich (1983) distinguishes between culture as a variable and culture as a root metaphor. In the former instance, the approach is "normal science" (Burrell, 1996) or positivism while the latter style of inquiry is interpretivist. Thus, researchers who see culture as a variable place a high priority on positivist concerns, such as the principles of prediction, generalizability, causality, and control. Their counterparts, on the other hand, draw upon anthropology to develop "radically new theories or paradigms" (Alvesson, 1993: 14); their research agenda is to explore organization as a "subjective experience" and to probe the "patterns that make organized action possible" (Smircich, 1983: 348).

<sup>10</sup> Shared learning encompasses the behavioral, emotional, and cognitive aspects of the group members' combined psyche.

<sup>11</sup> Because every organization has its own culture, from a functional perspective culture is very much akin to an individual's personality, as explained below by Howard Oden.

Organization culture is ... an intangible yet ever-present theme that provides meaning, direction, and the basis for action. Much as personality influences the behavior of an individual, shared values and beliefs within a company influences the pattern of activities, opinions, and actions within the firm. A company's culture influences how employees and managers approach problems, serve customers, deal with suppliers, react to competitors, and otherwise conduct activities now and in the future (Oden, 1999: 68).

<sup>12</sup> At an observable level, culture manifests itself through tangible devices such as artifacts, practices, expressive symbols, and forms (Alvesson, 1993; Beyer and Trice, 1987; Deal and Kennedy, 1982; Detert et al., 2000; Schein, 1997; Trice and Beyer, 1993). Not directly observable, culture also resides in the minds of organizational members and includes shared systems of beliefs, values, attitudes, assumptions, and ways of perceiving the environment (Burke, 1994; Lang, 1992; Schein, 1997; Trice and Beyer, 1993; Wiener, 1988).

<sup>13</sup> Argyris and Schön (1996) argue that there are differences between espoused theories (explicit assumptions) and theories-in-use (implicit assumptions). According to their "theory of action perspective," people are often unaware of the differences between what they say and do, where the latter—the theory-in-use—is how individuals and groups solve problems and make choices. In other words, the theory-in-use embodies the implicit assumptions that guide human behavior.

<sup>14</sup> Change requires a process of frame breaking (Bartunek and Moch, 1987) or double-loop learning (Argyris and Schön, 1996) –to wit, learning from critical reflection on organizational norms, values and other taken-for-granted assumptions (Marquardt, 1996).

<sup>15</sup> The following list denotes some of the strategies that the transformational leader uses to heighten commitment to change and uproot a deep-rooted culture:

- 1) Creating dissatisfaction with the current state of affairs.
- 2) Creating a sense of urgency.
- 3) Stopping unfounded "happy talk" from the top.
- 4) Neutralizing sources of complacency.
- 5) Creating an appropriate crisis to grab people's attention.
- 6) Building a critical mass of support by winning over key groups (Oden, 1999: 19-41).

<sup>16</sup> The approach taken here is one of manage or be managed. According to Bright (1993: 15), if leaders are not aware of the cultures in which they are rooted, those cultures will manage them.

<sup>17</sup> As I recollect from my former life as an undergraduate math major, the theory of sets commenced with the German mathematician, G. Cantor (1845-1918). According to Cantor, a set  $X$  is “any collection of definite, distinguishable objects of our intuition or of our intellect to be conceived as a whole” (Stoll, 1961: 3). That “every set is a subset of itself” illustrates the property of inclusion. By definition, if  $X$  and  $Y$  are sets, then  $X$  is included in  $Y$ , symbolized  $X \subseteq Y$ , if and only if each member of  $X$  is a member of  $Y$ . Accordingly, we say that  $X$  is a subset of  $Y$ .

Among the fundamental properties of the inclusion relation are the following:

1.  $X \subseteq X$ ;
2.  $X \subseteq Y$  and  $Y \subseteq Z$  imply  $X \subseteq Z$ ;
3.  $X \subseteq Y$  and  $Y \subseteq X$  imply  $X = Y$  (Stoll, 1961: 11).

From these properties, the following logic illustrates how we may “solve” the culture conundrum.

PROOF:

Let culture =  $Y$  and organization =  $X$ . If we assume that an organization is culture, then it follows that  $X = Y$  and  $Y = X$  (Intuitive principle of extension: two sets are equal if and only if they have the same members).

If  $X = Y$ , we know that  $X \subseteq Y$  and  $Y \subseteq X$  (based on relation 3).

Given this equality, we may substitute  $X$  for  $Y$  (or  $Y$  for  $X$ ) in relation 3.

Therefore,  $X \subseteq X$  (derivation of relation 1).

Since culture is contained in itself ( $X \subseteq X$ ) and culture is the organization ( $X = Y$ ), then it follows that culture is a subset of organization ( $X \subseteq Y$ ). Consequently, culture is both something that an organization *is* and something that an organization *has*. Q.E.D.

<sup>18</sup> The traditional view of leadership rests on the assumption that only a few select people possess the power and wisdom to master the forces of evil and organizational change. Just like the captain of the cavalry that rushes in to save the day, so too, must the organizational leader charge in to extinguish fires and rally the troops. What this timeless yarn overlooks is that culture is a “complex, powerful, deep and stable” (Schein, 1999: 342) force that provides meaning to daily events. When a leader attempts to change the basic attitudes of organizational members, (s)he is up against frames of mind that have developed over the duration of their membership in the organization. That is why cultures resist change so vehemently: resistance is a natural response to an insistent attack against one’s value system (Ibid.).

<sup>19</sup> Culture refers to the parts of a group or organization that are most stable and least pliable. Therefore, culture is the outgrowth of a complex learning process that is only partially shaped by leader behavior, as Schein realistically explains below:

People who try to change organizations often run up against attitudes that seem unchangeable. “We can’t make any headway,” they decide, “unless we can create a new culture around here.” Already, they have made an irreversible mistake. You cannot create a new culture. You can immerse yourself in studying a culture (your own, or someone else’s) until you understand it. Then you can propose new values, introduce new ways of doing things, and articulate new governing ideas. Over time, these actions will set the stage for new behavior. If people who adopt that new behavior feel that it helps them do better, they may try it again, and after many trials, taking as long as five or ten years, the organizational culture may embody a different set of assumptions, and a different way of looking at things, than it did before. Even then, you haven’t changed the culture; you’ve set stage for the culture to evolve (Schein, 1999: 334-335).

<sup>20</sup> Socialization is the process whereby “individuals are molded by the society to which they seek full membership” (Akella, 2003: 75; Fogarty, 1992: 130). In the context of the workplace, socialization is a process of acculturation or learning the values, norms, and required behavior patterns of the organization from the organization’s point of view (Schein, 1960, 1978).

## Chapter 5

### THE LEARNING THREAD

The sum and substance of learning in the learning organization grows out of two of Senge's disciplines, personal mastery and team learning. As shown in Figure 5-1 below, the Learning Thread explores these triggers for learning and their role in defining what it means to be a learning organization. This seemingly straightforward declaration of intent is at once problematic due to a variety of conceptual problems and open controversies that are endemic to the literatures that inform this topic. Chapter 5 traverses this factious theoretical terrain in order to probe both how history augurs the current state of the LO intellectual landscape as well as to uncover key themes and ideas that variously enlighten, encourage, and encumber individual and group learning in organizations.

#### Unraveling the threads of the Learning Organization<sup>1</sup>

You Are Here	Conceptual Threads	Senge's Five Disciplines
	A. The Systems Thread	Systems Thinking
	B. The Human Relations Thread	Personal Mastery Team Learning
	C. The Culture Thread	Shared Vision Mental Models
⇒	D. The Learning Thread	Personal Mastery Team Learning
	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
	F. The Structural Thread	Systems Thinking

Figure 5-1



## *Introduction: Setting the Stage*

“What is an organization, that it should learn?” (Argyris and Schön, 1996:3) –is a provocative question that has ignited the interest of many people and continues to be both the driving force and basis for much work in the area of organizational learning (Sun, 2006). From the standpoint of academic endeavor, it is a question that raises other compelling questions and calls attention to the linkages between, the problems of, and the potentiality for, individual, team and systemwide learning (Sloane, 1999) within and among organizations. From the vista of management practice, it is a question that has captured the imaginations of countless public and private sector establishments (Symon, 2002) around the globe as more and more of them have come to recognize learning as a key competence to deal more effectively with disturbances in the surrounding environment (Antal, Dierkes, and Tsui-Auch, 2001).

While it is uncertain who first coined the phrase “organizational learning”<sup>2</sup>, scholarly interest has grown impressively over the past forty plus years, attracting researchers from a broad and varied range of disciplines<sup>3</sup> (Antal, Dierkes, and Tsui-Auch, 2001; Dodgson, 1993; Pawlowsky, 2001; Polito and Watson, 2002). The growing belief that contemporary problems and concerns demand an unprecedented learning response from individuals, groups, institutions, and society (Frederick and McIlroy, 1999; Halal, 1998; Houghton and Sheehan, 2000; OECD, 1996b; Watson, 2001) is a notion that has helped to catapult interest in organizational learning, thus raising its status from that of an intellectual curiosity on the margins of organization theory to an issue of mainstream

importance (Easterby-Smith et al., 1998; Garratt, 1994; 1995; Miner and Mezias, 1996; Sun, 2006).

During the 1990s an explosion of work—much of it with a strategic and/or leadership bent—popularized the OL idea, thus affording it receptive entry into the mainstream literature (Crossan and Guatto, 1996; Edmondson and Moingeon, 1996; Sun, 2006). Largely due to the celebrity of *The Fifth Discipline* (Senge, 1990) and a spate of other such management self-help books, many organizations embarked on crusade-like missions to develop the “higher order skills,” practices, cultures, and systems necessary for constant improvement, growth, innovation, and renewal (Kehoe, 1996; Morgan, 1996; Oden, 1999; Senge, 1990; Watkins and Golembiewski, 2000:999). The prospect of increasing knowledge returns (Arthur, 1990; 1994; Zack, 2005) promised by the apparent link between learning capability and competitive advantage (Fulmer et al., 1998; Nonaka and Takeuchi, 1995) enthused scores of organizations “to learn”. The desideratum to build a “learning organization” became a familiar corporate refrain (Bartell, 2001; Goh and Ryan, 2002; Mills and Friesen, 1992; Wilson, 2004) and the attendant pursuit of “learning as strategy” (Fulmer et al., 1998) a universal remedy for an ever-widening array of organizational ills (Symon, 2003). But, irrespective of the ubiquity and the widespread appeal of this impassioned resolution, to merely assert “an organization must learn” is beguilingly simplistic.

Notwithstanding either the desirability of the LO idea or the idyllic visions of organizational learning grandeur that go along with it, a clear and consistent definition of what it means for an organization to learn has been elusive and troublesome to pin down,

as evidenced by a plethora of failed implementation efforts and its companion dearth of real-life LO examples (Garvin, 1993; Goh and Ryan, 2002; Jones and Hendry, 1994; Polito and Watson, 2002). A survey of the related literature reveals in fact a wide variety of perspectives, a conspicuous absence of cumulative research, a tendency for parochialism and sectarianism, and a lack of theory and model consensus (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Pawlowsky, 2001; Polito and Watson, 2002; Sessa and London, 2006; Smelser, 2001); conceptual problems that are chronic, viral, and self-replicating, thus leading to more and more divergence in the field. In addition, the usual tenor of the literature is optimistic (Antal, Lenhardt, and Rosenbrock, 2001), a bias that tends to obscure both the dark side of organizational learning (Kenney, in press; Vaughan, 1999) as well as some of the “cognitive and evaluative” barriers that preclude learning to take place inside an organizational setting (March and Olsen, 1988: 335; Sloane, 1999). Moreover, this bias is not a trivial matter of the glass being half-full or half-empty. Indeed, the frequent disparity between core theoretical assumptions and how they play out in actual experience remains a major source of frustration for practitioners who want to operationalize learning in their organizations (Garvin, 1993; Van Wart, 2003). In a nutshell, the major disputed issues that muddy the noological waters coalesce around the following axes of concern: what is the nature of learning, are the changes that it elicits behavioral or cognitive; who is the learner, is it the individual that learns or the organization; what is the linkage between individual learning and organizational learning, is organizational learning summative or is it something more than the combined total learning by individual learner addends; and finally, what is the relationship between

organizational learning and the performance of the organization, to wit, does learning necessarily improve performance.

By and large the house of OL knowledge and practice is a mess<sup>4</sup>. In order that we may get a handle on this mess, it is useful to “think historically” (Fear, 2001). Reframing the literature in this way, we can understand the conceptual problems that plague the field both as a logical extension of the past that precedes them and as the consummate growing pains of a budding knowledge domain. That learning in organizations is a complex phenomenon that defies a single definition or portrayal by just one model (Cohen and Sproull, 1991; Fiol and Lyles 1985; Garvin, 1993; Merriam and Caffarella, 1999; Popper and Lipshitz, 1998; Shani and Mitki, 2000; Watkins and Golembiewski, 2000) is a consequence of the ebb and flow of countless ideas on individual and group learning. As Airasian and Walsh (1997) aptly suggest, “there are as many meanings [for learning] as there are meaning makers!”

Next, in order that we begin to do some “mess management” (Ackoff, 1988), we consider the historical roots of organizational learning and its corporeal counterpart, the learning organization, as we take up the question of who put the learning in the learning organization?

### *Hasn't It Always Been About Learning?*

Organization theorists have long perpended learning in organizations. From a historical perspective, the organization literature is rife with examples of scholarly work with a learning bent. For instance, over the years numerous researchers have written

about organizations as open, adaptive systems (e.g., Burns and Stalker, 1961; Cyert and March, 1963; and Emery and Trist, 1965). Furthermore, many investigators have examined the linkages between learning, improvement and design (e.g., Trist and Bamforth, 1951; Pasmore, 1988; Taylor and Felten, 1993; Van Eijnatten, 1993), while various others have used inquiry and problem solving as a source of knowledge creation and group development (e.g., Lewin, 1946; 1951). Taken together, a half-century or so of work suggests the early beginnings of an intellectual domain on learning in organizations. Shown below in Table 5-1 are some of the highlights leading up to Senge's (1990) conception of the LO, much of which has been discussed previously in earlier chapters.

**Table 5-1\***

**Early Beginnings of an Intellectual Domain on Learning in Organizations: Prelude to the Learning Organization Construct**

<b>Author</b>	<b>Year</b>	<b>Theory, Model, or Approach</b>
Lewin	1946	Action Research
Simon	1947	Bounded Rationality
Wiener	1948	Cybernetics
Bertalanffy	1950	General Systems Theory
Lewin	1951	Force Field Analysis
Trist & Bamforth	1951	Sociotechnical Systems Theory
Ashby	1961	Laws of Requisite Variety
Burns & Stalker	1961	Mechanistic and Organic Systems
Forrester	1961	Systems Dynamics
Cyert & March	1963	Adaptive Learning Behavior
Thompson	1967	Contingency Approach to Organizational Rationality
Bateson	1972	Deutero Learning
Argyris & Schön	1978	Single & Double-loop learning
Pettigrew	1979	Organizational Culture (made its debut in the theoretical language of organizational behavior).
Schein	1985	Organizational Culture (as the accumulated shared learning of a given group).
Senge	1990	Dimensions of a learning organization

\* This table does not purport to be a comprehensive history of organizational learning—rather it presents some milestones in the historical advance of present theory and practice.

As is clear from table, the seeds of the learning organization took root decades ago. Yet at the same time these highlights do not tell the whole story. The study of human learning has a protracted history that both precedes present-day interest by students of organization studies and preordains the current state of the OL-LO intellectual landscape.

### *The Bequest of Learning's History*

The way that people learn has captivated thinkers as far back as antiquity. Over the centuries a cacophony of different voices has entered the conversation (Clegg and Hardy, 1996) and myriad theories have emerged from the discourse, each an attempt to elucidate how people learn and what it means to know (Malone, 1991; Merriam and Caffarella, 1999). But even with its prolonged intellectual attraction, the longevity of interest in learning has not produced an incontrovertible definition<sup>5</sup> for learning let alone a unified knowledge domain.<sup>6</sup>

Apart from the many rival ideas that learning theorists put forward, the professed purposes of theory making differ widely (Torraco, 1997), which has contributed to the disjointed state of the topic terrain. Furthermore, some learning experts even go so far as to challenge the very idea of learning theories at all (Hilgard and Bower, 1966; Knowles et al, 1998)!<sup>7</sup> So, not only is there dissensus with respect to what happens when learning takes place (i.e., what theory says), the literature also reveals disagreement as to what theory is and whether or not it is a necessary precursor to knowledge.

The controversy is no less apparent in the spin-off field of adult learning<sup>8</sup> (AL), a developing area of study in search of a defining theory<sup>9</sup> and whose “messages of lifelong

learning” and “faith in the human spirit” match those of the learning organization (Holton and Swanson, 1998:ix-x; Knowles et al., 1998).<sup>10</sup> However, just as there is no single theory that explains human learning in general, neither has a distinct and separate theory of adult learning emerged to unite the AL field (Merriam and Caffarella, 1999:286).<sup>11</sup> There are instead countless competing models and hypotheses, each of which illuminates a particular aspect of adult learning (Ibid.) at various times; but none that stand alone as a complete explanation under all circumstances. This is significant because dissension in the AL knowledge domain portends similar problems for all other fields involving adult learners.

Owing to such a contentious legacy<sup>12</sup>, it is no wonder that learning’s heirs, organizational learning and learning organization, are also fraught with similar conceptual ambiguities and disaccord. Accordingly, there are two main challenges that flow from history:

1. There is a “widely recognized distinction” (Easterby-Smith et al, 1998) between learning organization and organizational learning that coalesces around different literatures, appeals to different audiences, and utilizes different forms of language (Argyris, 1999; Argyris and Schön, 1996; Edmondson and Moingeon, 1998; Leitch et al., 1996; Lundberg, 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Schein, 1996; Tsang, 1997).
2. Organizational learning is contradictory, paradoxical, or quite simply devoid of meaning (Argyris, 1999:7; Cohen and Sproull, 1991; Dodgson, 1993; Fiol and Lyles, 1985; Garvin, 1993; Huber, 1991; Kim, 1993; Kofman and Senge, 1995; Merriam and Caffarella, 1999; Popper and Lipshitz, 1998; Redding, 1997; Rowden, 1996; Shani and Mitki, 2000; Watkins and Golembiewski, 2000; Weick and Westley, 1996; Vickers, 1965; 1972).

We briefly explore these two challenges now and the antecedents that have triggered them.

### *Learning History's Challenge Number One*

Due to the first challenge, the field has evolved on two separate tracks: 1) the practice focused, prescriptive literature of the learning organization and 2) the “skeptical, scholarly literature of organizational learning” (Argyris, 1999:1; Argyris and Schön, 1996; Easterby-Smith et al, 1998; Edmondson and Moingeon, 1998; Leitch et al., 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Tsang, 1997). Consequently, at the same time that organizational learning is a *raison d'être* of the learning organization, OL and the LO are not the same. This fissure in the field creates a degree of conceptual confusion because the two communities make different assumptions about learning in organizations; they focus on and emphasize different issues; and they come together under distinct, yet similar sounding “banner terms”.<sup>13</sup> As many authors have observed, such differences reflect the classic tensions between theory and practice, fact and value, and/or the descriptive versus the normative (Argyris, 1999; Easterby-Smith et al., 1998; Edmondson and Moingeon, 1998; Leitch et al., 1996; Sun, 2006; Tsang, 1997). Fortunately though, the literatures do meet at a number key points—namely, organizational learning *can sometimes* enhance performance<sup>14</sup>; learning and knowledge can have transformative powers; learning occurs in planned and unplanned ways; and the failure to actively learn and continuously improve carries a high cost (Argyris, 1999; Davenport and Prusak, 1998; Gurteen, 1998; Hendriks and Vriens, 1999; Marquardt, 1996; Nonaka and Takeuchi, 1995; Senge, 1990). So, despite a general lack of correspondence between the two intellectual streams, they tentatively and with qualification reach a common ground on a few important matters. In addition, one or two members of the OL camp are even willing to acknowledge that “writings on the learning



organization—like those of Schein, Senge, and the sociotechnical theorists—make significant contributions” (Argyris, 1999: 6) to the discipline, however prescriptive they may be.<sup>15</sup>

In any case, Craig Lundberg (1996) bridges the chasm between the scholarly and practitioner communities to some extent with a very useful and elegant rule of thumb to discern between the two domains of study (Schein, 1996). For Lundberg, LO is an integrating framework for both bodies of work where organizational learning refers to learning by individuals and groups *in* the organization and the learning organization applies to learning *by* the organization as a total system. Or, to put it in much simpler terms, learning organization, a noun, is what an organization potentially is (i.e., a high functioning, sociotechnical whole) and organizational learning, a verb (Weick, 1979), is what an organization potentially *does* (i.e., learning within and between systems).<sup>16</sup> But, researchers are far from agreement on this point and a number of perplexing problems test the “meaningfulness, feasibility, and beneficence” of the organizational learning idea (Argyris, 1999: 13).

### *Learning History’s Challenge Number Two*

“What does organizational learning mean?” (Argyris, 1999: 7) is a question wrapped in ambiguity, argument, and anagoge. As a consequence of this question, the crux of challenge number two, a clear and broadly accepted definition has yet to appear<sup>17</sup> (Cohen and Sproull, 1991; Fiol and Lyles 1985; Garvin, 1993; Merriam and Caffarella, 1999; Popper and Lipshitz, 1998; Shani and Mitki, 2000; Watkins and Golembiewski, 2000). Furthermore, the literature presents the learning phenomenon as occurring at

different levels of analysis (Edmondson and Moingeon, 1996), which, in turn, raises questions about the link between each level and at what point learning is, in fact, effective or beneficial organizational learning (Argyris, 1999; Huber, 1991; Vickers, 1965; 1972). Likewise, there is considerable cynicism and debate as to whether learning organizations even exist (Kofman and Senge, 1995; Redding, 1997), not to mention if they can really learn (Merriam and Caffarella, 1999; Rowden, 1996) sans anthropomorphization (Kim, 1993; Popper and Lipshitz, 1998). As Kim (1993) explains:

Although the meaning of the term “learning” remains essentially the same as in the individual case, the learning process is fundamentally different at the organizational level. A model of organizational learning has to resolve somehow the dilemma of imparting intelligence and learning capabilities to a nonhuman entity without anthropomorphizing it (Kim, 1993:40).

Hence, a key issue underlying the controversy is that of analytic level of aggregation (Argyris, 1999; Edmondson and Moingeon, 1996). Buried beneath the rhetoric of debate are vital questions such as: What is the basic learning unit in a learning organization? And, how does this relate to individual, team and organizational learning? (See Chapter 3)

Quite true to form, a wide variety of viewpoints have emerged as investigators tackle these challenging issues; their perspectives on OL ranging from eyebrow raised disbelief to axiomatic acceptance. Apart from the skeptics who flatly argue that organizations don’t learn—it is the persons within organizations that do the learning (Rowden, 1996:107); others claim an “organizational referent” (Weick and Westley, 1996) with the team as the basic learning unit of measure—even at the risk of making a “category mistake” (Argyris, 1999:7; Ryle, 1949)<sup>18</sup>. For these researchers the ascription of human characteristics to something nonhuman is a non-issue and more reflects an

inadequacy of language. In other words, they focus on the learning phenomenon at higher levels of social aggregation to better understand what happens in the practices of groups, for that is where “the rubber meets the road” (Senge, 1990:10). But, as two organization studies theorists duly suggest

Such sidestepping of the issues leaves us again with the depressing lack of a truly social science of organization or of learning. Surely, if we in the organizational sciences are going to adopt the concept of learning just as the psychologists seem on the verge of abandoning it, we must proceed with the faith that social learning processes have something to teach us about individual learning, as well as vice versa (Weick and Westley, 1996:442).

These authors disclose a root cause of the debate, that a disproportionate focus on individual cognition eclipses our view of the practices and processes of groups, the crux of learning in the learning organization. However, they contend, when recast as a cultural process, one level of learning does not obscure any other from view. Notwithstanding the OC literatures’ own controversies and debates (see Chapter 4 on *The Culture Thread*), this is a promising strategy because,

Those who embed knowledge in culture and its artifacts seem to be in an unusually good position to draw inferences about learning. ... When researchers focus on organizations as cultures, they focus less on cognition and what goes on in individuals’ heads, and more on what goes on in the practices of groups. This is a key shift for students of organizational as opposed to individual learning. ... The way investigators handle the question of where and how knowledge is embedded in organizations affects how they will handle learning. ... Attention to culture as an organizational system helps us to grasp more not only about the nature of organizing, but also about the nature of learning (Weick and Westley, 1996:442).

From a cultural perspective, learning is a social product created through social processes. Within this framework, organizational learning evolves when groups of people

intermingle, work, and experience events together. In other words, learning in a learning organization develops through the co-participation of individuals as separate agents and as members of teams. The “pedagogy” of the learning organization, for that reason, is interaction and collaboration through which members make intellectual connections, construct meanings through discourse, and develop empathy for the perspectives of others. In the language of the five disciplines, the knowledge and insights of each individual—i.e., personal mastery and mental models—converge and evolve into collective learning by the group—i.e., team learning—which subsequently becomes entrenched in structures, roles and procedures that are accessible to the organization taken as a whole. Thus, organizational learning in a learning organization is a process that occurs at the same time by cutting across various levels of learning to advance pooled knowledge, ubiquitous growth, and collective transformation of the entire enterprise.

Nevertheless, organizational learning is not automatic nor is it pain free (Antal, Lenhardt, and Rosenbrock, 2001). Skeptics argue that there are a number of impediments to organizational learning that arise as a result of various inborn, semi- unchangeable limitations of people and organizations (Friedman, et al, 2001). In other words, organizational learning is a less than perfect phenomenon (Shimizu, 1999), one for which we cannot assume a smooth and predictable trajectory (Antal, Lenhardt, and Rosenbrock, 2001); well-intended plans and programs can often result in unintended consequences that undermine the capacity for learning in organizations (Campbell and McClintock, 2002; Marks and Printy, 2002; Sterman, 2006). Furthermore, the same agents that are catalysts and sources for learning in organizations, such as culture and leadership, can simultaneously thwart its smooth and uninterrupted progression (Antal, Lenhardt, and

Rosenbrock, 2001). Recognizing the potentially harmful and retarding effects of such barriers to OL, researchers study these impediments in order to understand more fully when, where, and why they occur, which is key to overcoming them and subsequently promoting organizational learning (Anonymous, 1995; Cutcher-Gershenfeld and Ford, 2005; Sloane, 1999).

### *Barriers to Organizational Learning*

All organizations learn (Beaulieu et al, 2002; Dilworth, 1995; Doktor et al., 2005; Hawkins, 1994; Preskill and Torres, 1999; Raelin, 2000) or they would fail to adapt and survive (Kleiner et al., 1999; Marsick, 1997; Shanahan, 2000); but whether or not the effort is conscious (Kim, 1993:37) and the learning that transpires beneficial (Mirliss, 2002; Sterman, 2006) is another story. In other words, “how [organizations] learn, why they learn, what they learn, and how they apply their learning[s] vary significantly” (Beaulieu, et al, 2002:4; Preskill and Torres, 1999:44). These questions pose a set of concerns that Strichman (2005) recently framed as follows:

Learning may be taking place, but the question is: what *kind* of learning? Is the learning process deliberate? Efficient? Systematic? Does it challenge the organization to collectively assess its underlying assumptions? Does the knowledge lead to a change in how the work gets done? (Strichman, 2005:12).

Given that learning is not always effective, it is not difficult to find evidence of the multiple blockages and “learning disconnects”<sup>19</sup> that disrupt learning processes in organizations (Cutcher-Gershenfeld and Ford, 2005; Sterman, 2006). For example, organizations often fail to learn the right things—as in the case of “superstitious learning”<sup>20</sup> (Huber, 1998; Levitt and March, 1988; Mirliss, 2002), “trained incapacity”<sup>21</sup>

(Hall, 1960; Schaefer, 2006; Veblen, 1914), “bureaucratic personality”<sup>22</sup> (March and Simon, 1958; Merton, 1940), and “bureaupathology”<sup>23</sup> (Thompson, 1961; Vaughan, 1999) –or else it is possible that organizations learn bad things—as in the case of organizational members who devise new and ingenious ways to beat the system, be it lying, cheating, stealing, or any other anti-social behaviors that reflect “learning for less than benevolent purposes” (Kenney, in press). Likewise, experience is not always a good teacher and organizations do not necessarily learn from their mistakes (Genthon, 1997; Lounamaa and March, 1987; Shimizu, 1999). Organizations are often slow to learn and prone to failure due to faulty schemas and mental models that lead to “erroneous but self-confirming inferences,” thus allowing harmful beliefs and actions to persist, even in the face of counter evidence (Doktor et al., 2005; Sterman, 2006:505). By and large organizations may suffer from a number of afflictions or “learning disabilities” (Kofman and Senge, 1995; Senge, 1990; Willcoxson, 2002) that can either encumber or distort their capacity to learn. Among the sources of failure in this regard is learning myopia<sup>24</sup>, corporate amnesia<sup>25</sup>, incomplete learning<sup>26</sup>, superficiality<sup>27</sup>, deeply entrenched defensive routines<sup>28</sup>, and flawed feedback systems<sup>29</sup> (Argyris, 1985, 1992; Espejo et. al., 1996; Huber, 1998; Kransdorff, 1998; Levinthal and March, 1993; Mirliss, 2002; Othman and Hashim, 2004; Shimizu, 1999; Showing et al, 1999; Sloane, 1999).

In general, there are three main groupings of learning impediments identified in the literature that act as barriers to the development of corporate knowledge: (1) interrupted learning processes, (2) psychological and cultural learning obstructions; and (3) obstacles related to structure, leadership, and power (Akella, 2003; Antal, Lenhardt, and Rosenbrock, 2001). But, because some impediments to OL are easier to recognize

and more readily apparent than others (Antal, Lenhardt, and Rosenbrock, 2001), organizations tend to engage in single loop learning activities or error correction rather than examining the underlying policies, practices and objectives that may cause or contribute to such barriers (Argyris and Schön, 1978, 1996; Fulmer, 1994; Moynihan, 2005). Oddly enough, the case in favor of the learning organization proposed by Senge (1990) and other LO devotees gains more sway and credibility from this, not less, inasmuch as its core discipline, systems thinking, offers us a useful approach with which to “expand the boundaries of our mental models” from which we can “enhance our ability to generate and learn from evidence” like OL barriers, to bring about effective change (Cutcher-Gershenfeld and Ford, 2005; Sterman, 2006:505). This outcome is a rather ironic one given that many OL authors depreciate the worth of the LO literature on the grounds that it is over-optimistic and ignores the factors within and outside organizations that impede the processes of learning.

Indeed, to focus on learning and ignore the barriers that disturb it “is to embark on a romantic and usually fruitless exercise” (Argyris and Schön, 1983:3). On the other hand, to focus on OL impediments out of context and without aspiration is likewise impractical and futile. As Cutcher-Gershenfeld and Ford (2005) persuasively argue, both the “bold visions and harsh realities” of OL are part of the whole and thus embody valuable fodder for feedback within the system. In other words, both perspectives are necessary for it is in the tension between becoming a learning organization and the countervailing forces against it that real learning occurs (Ibid).

Given that the seeds of learning germinate and grow in the spaces between rival ideas, caveat emptor—let the consumer of the OL-LO literature beware. Undying allegiance to any one side of the debate misses a golden opportunity to advance the field. Just as we must heed the doubters’ warnings to examine the LO literature with a critical eye and “be skeptical of articles that paint OL in brilliant and happy colors” (Antal, Lenhardt, and Rosenbrock, 2001:883), so, too, must we weigh the contributions of the impediments literature for its generalizability and application in actual practice. As Sunassee and Haumant (2004: 266) remark, “Very few of these barriers are properly understood”. And, as three respected luminaries in the field observe,

Unfortunately, the literature provides no systematic analysis of barriers to organizational learning. Explicit references to impediments to learning are thinly dispersed in the publications of the last twenty-five years. Furthermore, most of these barriers have not yet been empirically explored in organizations (Antal, Lenhardt, and Rosenbrock. 2001:865).

Likewise, Sloane (1999) submits that much of the impediments research is anecdotal rather than a product of formal research. Clearly, there is much more work to do, if we are to “bridge the divide between organizational learning and the learning organization” (Sun, 2006:18). While further discussion of the debate between the “skeptics and the visionaries”<sup>30</sup> (Friedman et al, 2001) is beyond the scope of this paper, what we discover is that the highlights of the debate both mirror and illuminate the complexities of learning’s past; problems that students of organization studies have inherited by adopting the concept of learning into the lexicon of organization theory and practice.

In sum, there are seven big and far-reaching notions that emerge from the preceding discussion, which are as follows: (1) OL is a concept swathed in ambiguity,



argument, and anagoge; (2) history preordains the current state of OL theory and practice; (3) OL and LO, while related, are not the same thing; (4) organizational culture helps us to grasp the nature of both organizing and of learning; (5) OL is a social product created through social processes that evolves when groups of people intermingle, work, and experience events together; (6) OL is sometimes dysfunctional and it may in fact yield unintended or undesirable consequences; and (7) the way to sustain a learning organization is to engage the barriers to learning as valuable feedback.

*LO's Consonant Partners: Constructivism and Action Research*

Learning in organizations is a *layered phenomenon* consisting of three interrelated levels of meanings, the range of which is from the most atomistic level, that of the individual to the Gestalten properties of the total system—the organization at large. Three consequential ideas that help to elucidate and tie together the confluent threads of learning at its three levels of aggregation are cognitive constructivism (CC), social constructivism (SC), and action research (AR), as shown below in Figure 5-2. Starting with the highest level of aggregation—the learning organization—a discussion of each explanatory source follows in turn.

**Learning in the Learning Organization\***

		<u>Learning Level</u>		<u>Source of Explanation</u>
LO	OL	Individual Learning	← →	Cognitive Constructivism
		Team Learning	← →	Social Constructivism
		Learning Organization	← →	Collective Learning via Action Research

\* Organizational learning (OL) refers to learning by individuals and groups *in* the organization and the learning organization (LO) refers to learning *by* the organization as a total system.

**Figure 5-2**

## Action Research: A Process for Collective Learning

Action research is a type of planned inquiry—a conscious, purposeful search for truth, information or knowledge (Schmuck, 1997:28-29), based on the assumption that to understand a social system, a researcher must engage the system directly through the research process (Chisholm, 1997b). In lieu of passive observation, one of the cornerstones of “normal science” (Burrell, 1996), the action researcher attempts instead to get inside the actions that drive the system to make sense of how members experience events (Chisholm, 1997b). As such, the basic logic of action research is to provide learners access to a deeper level of understanding through active participation (Shani and Mitki, 2000) while at the same time advancing theories about the organizational change process (Baburoglu, 1992; Walton and Gaffney 1989). Thus, the knowledge created via AR helps both the progression of change and the new organizational forms that are expected to emerge as the process evolves (Baburoglu, 1992).

Because of its strong learning orientation and its goal to apply the knowledge derived from inquiry directly for organization development, AR lays the foundation for a learning system (Shani and Pasmore, 1985; Shani and Mitki, 2000; Watkins and Golembiewski, 2000). Plus, as an articulation of sociotechnical systems design, the learning organization takes on the values of STS thinking—and subsequently AR; close examination of both philosophies reveals that a learning environment is both necessary and assumed.

Recalling Ketchum and Trist’s (1992:40,45) proposed mindset for STS, that “learning never stops!” underscores an active versus passive disposition to learning.

Owing to this tenor, action research and its various active learning derivatives and styles<sup>31</sup> are among the predominant learning strategies of the learning organization for individual and group learning (Argyris and Schön, 1996; Baburoglu, 1992; De, 1978), no matter what the process is called. With democratic participation and egalitarian cooperation as its essential features (Schmuck, 1997), AR aids LO learning through collective group activity where each person participates as an equal, shares data, solves problems, and seeks new ways to reach commonly shared goals.

AR consists of two elements: 1) self-reflective inquiry, which is internal and subjective and 2) inquiry-oriented practice, which is external and data based (Schmuck, 1997). Through the interplay of these two components, action researchers are able to ruminate both on professional practice and try alternative approaches to improve outcomes. Accordingly, the AR process is iterative; it unfolds using an endless spiral of cycles whose phases include diagnosis, planning, implementation, data collection, then repeat, with each new round using information and learnings derived from the previous one as input (Chisholm, 1997b).

Kurt Lewin (1946) generally receives credit for introducing the term “action research” into the scholarly vernacular as a way of generating knowledge about a social system while, at the same time attempting to change it (Chisholm, 1997b; Schmuck, 1997). He combined the notions of action and research based on the premise that the best way to understand a social situation is to introduce change and observe its effects. As such, action research has twin purposes (Baburoglu, 1992): (1) to provide practical guidance to people faced with immediate problems and (2) to contribute to the goals of

social science (Rapoport, 1970). As a social science, action research does not aim to formulate universally true laws, but situation-specific insights (Baburoglu, 1992).

Other early pioneers include Collier (1945), who called for the development of an action approach to understand and improve American Indian affairs and Corey (1953), who apparently had similar ideas in education (Chisholm, 1997b; Eden and Huxham, 1996). In addition, the early work of the Tavistock Institute in Great Britain following WWII reflects an action research thrust.

### Social Constructivism: A Theory of Team Learning

In general, constructivism is a popular catchword that encompasses a wide range of perspectives about the development of knowledge (Airasian and Walsh, 1987; Hein, 1991; Reed, 1996) and how we come to know. From the standpoint of epistemology, constructivism represents a sharp departure from the traditions of “normal science” (Burrell, 1996) and is part of the growing influence of postmodernism, which stresses the contextual construction of meaning and the validity of multiple perspectives. Other key ideas include:

- Knowledge is constructed by people alone and in groups;
- There is not one reality;
- Truth is grounded in everyday life and social relations;
- Life is a text; thinking is an interpretive act; and
- Science and all other human activities are value-laden (Wilson, Teslow, and Osman-Jouchoux, 1995).

Hence, constructivism stresses that all knowledge is interpretive, subjective, relative (i.e., varying according to time and space) and fallible (CSCL, 1999; Meehan,

1988); what we see is a function of what we know—the “hidden forces that make reality real in a culturally specific way” (McLuhan, 1965:36-37). Likewise, learning and knowledge are cumulative and inseparable from their context.

There are two main flavors of constructivism, which vary as to the degree of social interaction involved in the process of constructing knowledge (Confrey, 1995). Constructivist theories that focus on the individual’s cognitive processes such that knowledge is a symbolic, mental representation in the mind of the person (CSCL, 1999) come under the rubric of cognitive or developmental constructivism.

Social constructivist theories, on the other hand, emphasize the role of social influences in the interpretation, construction, and reconstruction of contexts, knowledge, and meanings (Das Gupta and Richardson, 1995; Driscoll, 1994). Social constructivism is consonant with action research (Astley 1985; Berger and Luckmann 1966; Manicas 1980) as both views look at social reality as something that is continually constructed and modified through human activity.

The doyen of social constructivist thinking is Lev Vygotsky, a Russian psychologist and philosopher, who before his death in 1934 posited a number of hypotheses about the role of culture and social contexts in learning (Davydov, 1990). Considered by many to be quite radical and ahead of his time, Vygotsky stressed the individual’s interaction within a social milieu (Airasian and Walsh, 1997) and the collaborative efforts of groups of learners as sources of learning (CSCL, 1999). Central to his work is a concept called the zone of proximal development (ZPD), which has been described as

[The] distance between the actual development level as determined by individual problem solving and the level of potential development as determined through problem solving ... in collaboration with more capable peers. The zone of proximal development defines those functions that have not yet matured... The functions could be termed the “buds” or “flowers” of development... (Cole et al., 1978:86 as cited in Miller and Deaner, 2000:770).

As Miller and Deaner (2000) observe, the same ideas are also apparent in collaboration, the bedrock of team learning. They write:

A ZPD perspective is particularly important when partners: (1) have complimentary knowledge, skills, and attitudes yet come from different fields of endeavor, (2) have different levels of skill, such as an apprentice and a mentor, and (3) have knowledge in one area and want to expand into another. When partners are willing to learn from each other, each benefits, as does their task performance (Miller and Deaner, 2000:770).

As such, a useful metaphor for social constructivism is that of “persons in conversation” (Ernest, 1995). Through the use of language and social interchange (i.e., dialogue and discussion), individual knowledge can be tested. Moreover, new knowledge co-develops “intersubjectively”; constructed through the mutual understanding or shared mental models that emerge between people in communication (Rogoff, 1990).

Other defining features of social constructivism include:

- It is an active mode of learning.
- It is egalitarian and participative; the role of peers is critical.
- Learning is a process of integration or acculturation into a community of practice (Caldwell, 2005b; Wenger, 1998; 2000).
- There is a belief in pluralism. Learning is negotiated from multiple perspectives (Berger and Luckmann, 1966; Jaworski, 1994; Stage et al., 1998).

## Cognitive Constructivism: A Theory of Individual Learning

As stated earlier, cognitive constructivism and its underlying epistemology embody theories of learning that emphasize the active role of the individual learner in building and interpreting his or her own understanding of reality (Brooks and Brooks, 1993; Driscoll, 1994; Stage et al., 1998; Steffe and Gale, 1995). Basically, cognitive constructivist thinking argues that knowledge creation is a process of meaning making such that people make sense of their own personal experience (Merriam and Caffarella, 1999). Driver et al (1994:6) describe the process as “a progressive adaptation of [an] individual’s cognitive schemes to the physical environment.” In other words, meaning and subsequently knowledge is dependent on a given individual’s past and present learnings or life experience, which, in turn, is a source and stimulus for new learning (Merriam and Caffarella, 1999).

According to Confrey (1995), cognitive constructivism draws upon the early 20<sup>th</sup> century writings of Jean Piaget, a Swiss psychologist. Although Piaget concentrated his investigative efforts on the stages of cognitive development in children, constructivism is congruent with much of adult learning theory (Candy, 1991; Merriam and Caffarella, 1999), which emphasizes active inquiry, experiential knowledge, and personal mastery of tasks. The list below highlights some of the most important assumptions of constructivist thinking and thus provides a useful perspective for thinking about personal mastery and mental models:

- Knowledge resides in the mind.
- Meaning is constructed.

- Learning is cumulative.
- Reflection is critical.
- Knowledge is the sum of negotiated and constructed meanings.
- Knowledge and perception are inseparable (Wiswell and Ward, 1997).

To quickly summarize, a learning organization, by its very nature, encourages and emphasizes sustained and active learning at three levels of social aggregation: the individual level, the team level, and at the system level. Action research, together with constructivist philosophy and theory provides a framework to elucidate and tie together the confluent threads of learning at these three levels of aggregation.

Action research is a type of planned inquiry with twin purposes: (1) to promote deep learning about a social system while attempting to change it and (2) to advance practical theories about the organizational change process. Given its active disposition to learning, action research offers a useful strategy to set into motion the wheels of individual and group learning by yielding situation-specific insights about the social system.

Organizational learning defies representation by any one model or theory; whether or not learning is an individual or collective phenomenon is an extremely debatable issue. Very conveniently, constructivism enables us to bridge the rift without paying absolute allegiance to any one perspective. As several authors note, (e.g., Palincsar, 1998; Phillips, 1995; Wilson et al., 1995) there is actually a continuum between the individual orientation of Piaget and the sociocultural perspective of Vygotsky, with many points in-between. And, in the same way, there is a wide range of combinatory possibilities between individual and organizational learning as well.



Constructivism, while not prescriptive (Wilson et al., 1995), is useful to explain the local, fragmented specificities of learning in organizations across all three aggregative levels. In particular, it dovetails nicely with the LO idea of mental models by addressing the subjective, context-bound character of knowledge creation; it makes room for personal learning and the synergetic effects of learning together; and is in sync with the current “interpretive” movement in organization studies toward different theoretical approaches (Clegg and Hardy, 1996).

### *Limitations*

This chapter surfaced a number of limitations in the literatures that inform this topic. First, the failure to describe a clear and consistent definition of what it means for an organization to learn has rendered the concept difficult to operationalize. And, from the standpoint of practice, this has meant disappointment and disaster for many organizations, as evidenced by countless failed efforts and a shortage of documented, real-life LO examples. In the absence of many success stories, numerous authors relegate the concept of the learning organization to that of an unattainable ideal type (Easterby-Smith, 1997; Sun, 2006; Tsang, 1997; Wallace, 2002), an argument based on the somewhat unchangeable idiosyncrasies of human nature and organizations (Friedman et al, 2001).

Second, owing to the inherent imperfections of language use, the phrase “organizational learning” is one that is potentially devoid of meaning and may qualify as an oxymoron, given the uneasy tension that exists between the two root processes that describe it, i.e., organizing and learning, which mean opposite things (Weick and

Westley, 1996). As a result of this contradiction in terms, a catch-22 arises; namely, how to organize non-organizable learning forms (Geppert, 2000). More importantly than mere semantics, however, a failure to resolve the tug between organizing and learning may leave us intellectually impoverished in the end, with no hope of ever truly understanding either dynamic or the nature of the linkage that joins these processes together (Weick and Westley, 1996).

Third, another major concern related to the limitations of locution has been the ungrammatical peccadillo of making a “category mistake” (Argyris, 1999; Ryle, 1949; Weick and Westley, 1996), which occurs when we anthropomorphize a nonhuman entity (Kim, 1993). To circumvent the use of misguided language, many authors are quick to note that organizations do not learn as such, it is the people inside them that do (Belasco, 1998; Kofman and Senge, 1995; Moore, 2001). However, even this kind of declaration does not explain why learning is important, who is its main beneficiary, and what are its political, economic (Akella, 2003), and social ramifications. Furthermore, even if we allow that organizations do learn, it is possible that either they learn the wrong things (e.g., trained incapacity and superstitious learning) or they learn unsavory behaviors (e.g., the ENRON debacle and Watergate) (Hall, 1960; Huber, 1998; Kenney, in press; Levitt and March, 1988; Mirliss, 2002; Schaefer, 2006; Vaughan, 1999; Veblen, 1914).

Likewise, learning in organizations need not be efficient or effective, thus calling into question the proposal that learning yields competitive advantage. There are a number of learning impediments, such as learning fragmentation, corporate amnesia, and faulty feedback systems that can either inhibit or distort the organization’s capacity to learn

(Huber, 1998; Kransdorff, 1998; Levitt and March, 1988; Mirliss, 2002; Shimizu, 1999; Showing et al, 1999).

Fourth, is the issue of who sets the learning agenda? Many authors take exception to the principles of shared values, unity of purpose, and democratic participation tendered in the philosophy of the LO (Senge, 1990) on the grounds that it is naïve. For these cynics, the learning agenda is set by the dominant coalition at the time, and not communitarian interests, thus, nullifying any egalitarian notions of empowerment, personal mastery, dialogue, discussion, and learning by all (Akella, 2003; Armstrong, 2000; Coopey, 1995; Driver, 2002; Duncan and Weiss, 1979; Easterby-Smith, 1997).

Finally, action research and other such learning modalities require special skills that an organization may not have available in-house or be able to afford from the outside. Moreover, organizations may lack the maturity and courage needed for self-reflective inquiry and inquiry-oriented practices; vital processes through which they may learn and discover alternative approaches to the status quo, thus enabling them to improve their effectiveness (Chisholm, 1997b; Schmuck, 1997; Shani and Pasmore, 1985; Shani and Mitki, 2000; Watkins and Golembiewski, 2000).

### *Summary*

An underlying assumption of this dissertation is that an excellent organization is also a learning organization, a premise that finds both enthusiastic support and vitriolic dissent in the literature. Emanating from this controversial notion, the purpose of this chapter has been to trace the historical development of the LO concept to demonstrate at

a high level of abstraction its current significance as a construct. In particular, the approach taken has been to deconstruct the learning organization based on its core values so that we may gain a sense of its conceptual footing and at the same time establish a solid theoretical foundation for its potential use in actual practice.

What we note from the review of the literature thus far is that the learning organization is an ideal type with a pedigree. As such, there is an innate evolutionary aspect to the learning organization model that both echoes and benefits from the “historically contested terrain” (Reed, 1996) of its lineage. Consequently, the notion of the learning organization encapsulates a large eclectic body of ideas that at times seems incommensurate but on balance reflects the inherent richness and complexity of the LO phenomenon; a reminder of the growing influence of postmodernism, the need to embrace multiple viewpoints, and the efficacy of reasoning in context. And, notwithstanding either the tension or the paradox posed by rival theories pitted one against another, this body of disparate ideas coalesces under the rubric of an open systems perspective that is both the bedrock and logic for the “essences, principles, and practices” (Senge, 1990) that guide and sustain each learning discipline. Accordingly, some of the LO’s prominent features include a responsiveness to outside pressures; an enhanced competency capacity; a learning culture and empowered people; collective intelligence, collaborative processes, and democratic dialogue; a commitment to learn and continuous improvement; and a sociotechnical design that integrates people with technology. It follows then that these are aspirations for which the learning organization will want to aim, as it seeks to develop and sustain a creative, productive, and learningful workplace for its members.

The learnings from this chapter set the stage for the discussion on quality that follows in the next chapter, the *Quality Thread*, where we trace the development of quality management (QM) philosophy and practices, whose deeper messages are about learning (Senge, 1994) and originate from systems thinking (Hart and Bogan, 1992; Ziegenfuss, 1993). Together, these ideas evoke images of what a high-performance learning system is and what a high-performance learning system does; thus, evoking a mental picture about which we can articulate a culture, climate, processes, and structure to conduct purposeful human activity. Moreover, when organizational stakeholders engage in the complementary processes of QM and LO, quality and learning become deeply embedded values in the collective awareness of the enterprise; and excellence, the transcendent vision and purpose for change and improvement in the organization (O'Banion, 1997).

## NOTES

<sup>1</sup> This “map” serves two purposes. (1) It reminds the reader where we are in our approach to trace the historic roots of the learning organization. (2) It provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

<sup>2</sup> Peter Sun (2006) traced the first mention of “organizational learning” to James March and Herbert Simon, who in their discussion of Merton’s theory on the dysfunctions of bureaucracy noted,

Merton (1940) is concerned with dysfunctional *organizational learning*: organizational members generalize a response from situations where the response is appropriate and it results in consequences unanticipated and undesired by the organization [emphasis added] (March and Simon, 1958: 37-38).

<sup>3</sup> On the basis of their review of the literature, Polito and Watson (2002) describe OL theory as multidisciplinary in nature, but lacking synthesis. Some of the research that they cite comes from the following fields of study: psychology, anthropology, strategic management, economics, sociology, political science, OD, industrial management, and so on (Argyris and Schön, 1978; Dodgson, 1993; Fiol and Lyles, 1985; Leibenstein and Maital, 1994; Perrow, 1986; Shrivastava, 1983).

<sup>4</sup> The term “mess” as used in this context is in the Ackoffian sense of the word to underscore the confused, disorderly, and mutually supporting condition of the “problematique,” the vast and proliferating literature on learning in organizations (Ackoff, 1988).

<sup>5</sup> Learning is an elusive phenomenon (Knowles et al., 1998) that defies easy definition and simple theorizing (Merriam and Caffarella, 1999). While the concept of behavior change lies at the heart of most treatments, this alone fails to capture some of the complexities and nuances involved, such as those aspects that make behavioral changes in human learning possible (Harris and Schwahn, 1961:1-2). Furthermore, depending on the learning target (e.g., animal, child, or adult) and the philosophical leanings of the theorist, there are conspicuous variations both in the propounder’s assumptions and in the nature and precision of the language used, which permeates the development of definitions and theories. This last point is significant and has proven to be problematic—so much so that according to one explanation, contextual variance is the primary reason for the lingering controversy surrounding the development of a precise definition for learning.

It has been suggested that ... learning defies precise definition because it is put to multiple uses. Learning is used to refer to (1) the acquisition and mastery of what is already known about something, (2) the extension and clarification of meaning of one’s experience, or (3) an organized,

intentional process of testing ideas relevant to problems. In other words, it is used to describe a product, a process, or a function (Smith, 1982:34).

Consequently, Knowles and company (1998:12) conclude that since learning is such an indefinite phenomenon—to wit, because “we don’t know what [it] is” –at best we “can only infer what it is.”

<sup>6</sup> Over the years many people from a variety of different perspectives have thought about, probed, and documented various aspects of the learning process. The proliferation of learning theories that have resulted from these diverse endeavors presents a major challenge to the field to impose some degree of organization (Knowles et al., 1998:20). While learning theorists have exerted considerable energy to get their house in order, no single, unified classification scheme has emerged from their efforts. Instead, strategies to categorize the knowledge domain abound and are largely dependent on the writer. For example, Hilgard and Bower (1966) identify two major families of theories, which they call stimulus response theories and cognitive theories. Merriam and Caffarella (1999), on the other hand, suggest a five-part framework based on a given theory’s core assumptions, which they label as follows: 1) behaviorist, 2) cognitive, 3) humanist, 4) social learning and 5) constructivist. Yet another taxonomy suggested by Reese and Overton (1970) sorts learning theories in accordance with their worldview, as either “mechanistic” or “organismic.”

Despite a lack of consensus on the number of learning theories and how best to group them (Merriam and Caffarella, 1999), the chief value of these categorization devices and others is to provide a common lexis and conceptual framework to interpret the types and venues of learning observed (Hill, 1977:261).

<sup>7</sup> Some psychologists, as indicated by Knowles (1998) and associates, question the value of learning theories. Robert Mills Gagné asserts, for example:

I do not think learning is a phenomenon which can be explained by simple theories, despite the admitted intellectual appeal that such theories have (Gagné, 1965:v).

Similarly, another leading authority on the subject has deemed most learning theory a “wasteful” and “misleading” preface to knowledge creation (Skinner, 1968:8; Knowles et al., 1998:10).

<sup>8</sup> The increasing demand for lifelong learning and its antecedents—a global economy, an aging population, the changing nature of work, and rapid advances in technology—have both drawn attention to the adult learner as well as given rise to a growing body of assumptions about learning beyond adolescence. Accordingly, the “adult” in adult learning refers to a grown-up individual—someone with a “self-concept of self-direction,” i.e., a sense of responsibility for one’s own life, decisions and actions; and,

adult learning connotes “the process of adults gaining knowledge and expertise” (Knowles et al., 1998:64, 124).

<sup>9</sup> Until fairly recently the adult learner was “a neglected species” (Knowles et al., 1998:35). As pointed out by Merriam and Caffarella (1999), it was not until the 1970s that adult educators began to pay systematic attention to the characteristics that distinguish adult learning from other kinds of learning. The shift in focus was

Part of the field’s efforts to differentiate itself from other areas of education. It also led to the search for a single theory of adult learning, one that would differentiate adults from children, include all types of learning, and was at once elegant and simple (Merriam and Caffarella, 1999:286).

<sup>10</sup> The “messages of lifelong learning” and “faith in the human spirit” that characterize the adult learning field (Holton and Swanson, 1998:ix-x; Knowles et al., 1998) and its literature are commensurate with the fundamental values of the learning organization. As this paper has argued, the philosophy of the learning organization derives its energy and reason from sociotechnical systems thinking. The learning organization is as such an egalitarian, sociotechnical entity, built upon and guided by a set of practical human values or norms (Van Eijnatten, 1993) that serve to foster a learning environment.

Not only that, there is a more obvious, natural link between adult learning and the learning organization if only because of the common point of intersection they share—the adult as learner. Being that it is through the efforts of adults that an organization accomplishes its goals, much of adult learning theory is a ready source of insight into organizational learning as the following passage explains.

[E]very organization is ... a social system that serves as an instrumentality for helping people meet human needs and achieve human goals. ... Adult education is a means available to organizations for furthering both purposes. Their work purpose is furthered to the extent that they use adult education to develop the competencies of their personnel to do the work required to accomplish the goals of the organization. Their human purpose is furthered to the extent that they use adult education to help their personnel develop the competencies that will enable them to work up the ladder of Maslow’s hierarchy of needs ... to self-actualization. As if by some law of reciprocity, therefore, organization provides an environment for adult education. In the spirit of Marshall McLuhan’s *The Medium Is the Message*, the quality of learning that takes place in an organization is affected by the kind of organization it is. This is to say that an organization is not simply an instrumentality for providing organized learning activities to adults; it also provides an environment that either facilitates or inhibits learning (Knowles, 1980:66-68).



<sup>11</sup> A grand theory of adult learning has not emerged to unify the field. Given the complexity of human learning, the quest for a single theory of adult learning is a quixotic pursuit, as many other fields also have discovered (e.g., public administration). Noting the improbability of such a find, Merriam (1993) provides a revealing assessment of the state of the art and practice of adult learning. She writes:

It is doubtful that a phenomenon as complex as adult learning will ever be explained by a single theory, model or set of principles. Instead, we have a case of the proverbial elephant being described differently depending on who is talking and on which part of the animal is examined. In the first half of [the twentieth] century, psychologists took the lead in explaining learning behavior; from the 1960s onward, adult educators began formulating their own ideas about adult learning and, in particular, about how it might differ from learning in childhood. Both of these approaches are still operative. Where we are headed, it seems, is toward a multifaceted understanding of adult learning, reflecting the inherent richness and complexity of the phenomenon (Merriam, 1993 as cited in Knowles et al., 1998:1-2).

<sup>12</sup> One of the reasons we examine the past is to better comprehend the present and the future, because what transpired in an earlier time—maybe even centuries ago—can have a tremendous impact on where things presently stand. That “history is destiny” (Rabin, 1997:7) is a powerful idea—a provocative notion that is very germane to understand the advance of theory and knowledge in the sphere of organizational learning. Therefore, to better grasp the current complexities of OL theory we can look to its parentage, the history of learning inquiry, for insight into the state of the art and practice. Conceived in this way, the organization then is a context in which learning occurs and the history of organizational learning, a part of the succession of theories and ideas in the ongoing story of what it means to learn.

Even just a cursory glance at the learning theory literature reveals a body of knowledge beset by a lack of consensus, definitional diversity, and controversy. This is greatly due to the fact that the study of learning has not been the sole province of any one professional perspective. For centuries, the study of learning belonged to the philosophers—students of the universe who viewed learning within a “cosmic context” (Laszlo, 1972c). Conjecture and speculation guided their investigations as they sought to find an order to the world that was explainable through thought and the senses (Wright, 1989). It was not until the latter part of the nineteenth century that the study of the mind moved from the ambit of philosophical investigation to purview of scientific inquiry (Hergenhahn, 1988:42) and its canons of testing and variable control (Knowles et al., 1998). Now set free from the sway of philosophy, learning was the prefecture of the behavioral psychologist.

However, disillusionment with traditional science and its rationalistic, deterministic, linear ways of thinking in time set into motion the wheels of postmodernism; alternate

ways of seeing the world that embrace multiples perspectives and contextual reasoning (Rosenau, 1992; Tarnas, 1991) –what Knowles (1998) and his colleagues describe as a reflective stream of inquiry. Unlike “normal science” (Burrell, 1996) which seeks to discover new knowledge through rigorous and controlled investigation, the reflective stream seeks to ascertain new knowledge by means of intuition and the analysis of experience (Knowles et al., 1998:36-37).

As a result what we have today is a body of knowledge much like a patchwork quilt, pieced and stitched together by thinkers from many different times, venues, and intellectual vistas. And, as a consequence of history, there are countless explanations that purport to make clear what happens when people learn, all with their own particular assumptions about the nature of learning. Yet notwithstanding patent differences in values or approach, the notion of change—both actual and the potential for it—represents a common denominator across most learning theories (Merriam and Caffarella, 1999). According to one user-friendly, all-purpose, pithy definition that Maples and Webster (1980:1) suggest, learning is “a process by which behavior changes as a result of experiences.” Or conversely we may say that without some change in the individual, there is no learning.

To help us get a handle on the giant “morass,” learning theory analysts (Knowles et al., 1998) have found it is useful to categorize theories using a number of different strategies (see note 6). One handy system suggested by Merriam and Caffarella (1999) arranges learning theories in accordance with their underlying assumptions or as major schools of thought. A brief description of each category is included here to illustrate the diverse terrain of the learning theory landscape.

In a nutshell, *behaviorists* define learning as a change in behavior, such that the focus of their research is explicit behavior, which is a measurable response to stimuli in the environment (see Merriam and Caffarella, 1999:251-253).

*Cognitivists*, on the other hand, give attention to internal mental processes. Accordingly, their primary interest is how the mind makes sense out of stimuli in the environment—how information is processed, stored, and retrieved (see Merriam and Caffarella, 1999:253-256).

In contrast to the prior two perspectives is the *humanistic* orientation to learning, which emphasizes human nature, human potential, human emotions, and affect. Theorists in this tradition believe that learning involves more than cognitive processes and overt behavior. Rather, it is a function of motivation and involves choice and responsibility (see Merriam and Caffarella, 1999:256-258).

The fourth orientation is *social learning*. According to this perspective, learning is a function of the interaction of persons, environment, and behavior. Social learning theories contribute to our understanding of the LO by highlighting the importance of social context and by explicating the processes of modeling and acculturation e.g., role of

culture, (see Merriam and Caffarella, 1999:258-261).

Finally, *constructivism* embodies a group of theories that conceive knowledge as a product of individual, self-directed experience. In other words, learners construct their own knowledge based on their own experiences. Constructivism emphasizes the cognitive process of meaning making as a solo mental activity and in social exchanges with others. Autonomous learning, learning from experience, and reflective practice each display aspects of constructivism (see Merriam and Caffarella, 1999:261-263).

<sup>13</sup> For example, Tsang (1997) suggests that ‘organizational learning’ focuses on, ‘How *does* an organization learn?’ while the learning organization focuses on, ‘How *should* an organization learn?’ The first perspective is a matter of descriptive theory and the latter a matter of normative theory, each with their own separate bodies of literature and followings, as illustrated by separate conferences, journals, Internet listservs, discussion groups, and sponsorships. Academics tend to resonate to the OL literature and community and practitioners, the LO literature and community. Easterby-Smith et al. (1998) submit that even when looking at conferences in this field, it is rare to find practitioners at academic conferences and visa versa. Therefore, for many people the big difference between organizational learning and the learning organization is a question of theory versus practice. While organizational learning theorists describe how organizations learn, practitioners view learning more as *something* that needs to be created through intervention.

Leitch et al. (1996) compare the analytic study of organizational learning, where one is concerned with observing and understanding that which is already there, against the search for the learning organization, an ideal type which does not actually exist. They identify organizational learning with a focus on outcomes and achievements and the learning organization with a focus on process and purpose. In addition, another difference noted between the two is that the organizational learning literature follows the normal conventions of academic publishing with a predominance of papers in academic journals that seek to advance formal theory through rigorous scholarship or to test theoretical propositions through careful research. The learning organization literature, on the other hand, is “more derivative.” It is built upon a mixture of case studies and anecdotes that use a few selected academic concepts (e.g., single/double-loop learning) which have been refined into practical tools through extensive consultancy experience (e.g., Senge, 1990) (Easterby-Smith et al., 1998). Given the diversity of the field, Edmondson and Moingeon (1998) suggest that the learning organization become a rubric to parcel work on adaptiveness and regenerability from the larger body of work.

<sup>14</sup> As Antal, Lenhardt, and Rosenbrock (2001) duly observe, organizational learning is neither a given nor is it effortless. There are a number of barriers to organizational learning that arise as a consequence of human nature and some “relatively unchangeable features” of organizations (Friedman, et al, 2001). In general, there are three main groupings of learning impediments identified in the literature: (1) interrupted learning processes, (2) psychological and cultural learning obstructions; and (3) obstacles related

to structure, leadership, and power (Akella, 2003; Antal, Lenhardt, and Rosenbrock, 2001).

<sup>15</sup> Argyris (1996) concedes that in spite of the inherent paradoxes associated with organizational learning that scholars chose to write about, a number of authors have made some useful contributions both by describing various kinds of learning and by outlining the structures, processes, and conditions that serve as their enablers. Among the “prescriptions” he finds most handy to bring about productive learning are:

- Flat, decentralized organizational structures;
- MIS systems that give fast, public feedback on the whole organization and all of its subsystems;
- Mechanisms for surfacing and critiquing implicit theories of action in conjunction with cultivating systematic programs of experimental inquiry;
- Measures of organizational performance;
- Incentives aimed at fostering a learning environment; and
- Ideologies associated with such measures as total quality, continuous learning, excellence, openness, and boundary spanning (Argyris, 1999:6).

<sup>16</sup> Linguistics aside, it makes good sense to look at the learning organization like Lundberg sees it in any case—that is to say, with the status of an overarching systems concept—especially given that organizations are complex sociotechnical systems. As we have witnessed so far under our lens of historical analysis, Lundberg’s interpretation of the state of the field is quite consistent with the holistic orientation of the learning organization as conceived by Peter Senge and other contributors. Therefore, by constructing a conceptual causeway between the two perspectives, the LO construct profits from both the theoretical clout and practical insight of the two literatures.

<sup>17</sup> Garvin (1993), for example, reviews a number of different definitions for organizational learning and observes that they disagree across several key issues. He writes:

Most scholars view organizational learning as a process that unfolds over time and link it with knowledge acquisition and improved performance. But they differ on important matters. Some [theorists], for example, believe that behavioral change is required for learning; others insist that new ways of thinking are enough. Some cite information processing as the mechanism through which learning takes place; others propose shared insights, organizational routines, even memory. And some think that organizational learning is common, while other believe that flawed, self-serving interpretations are the norm (Garvin, 1993:79-80).

For Garvin, if the associated literature is to serve a useful purpose and help the aspirant learning organization, the main challenge is to make sense of the existing morass and build on earlier insights. Interestingly, he adds to the definitional jumble with a working definition of his own, where he emphasizes the importance of new ideas to foster learning. However, as we learn from history and as Merriam (1993) duly points out (see note 11), depending on who is doing the talking, what their particular bent is, and on which part of the “animal” they focus, we are left with a variety of different perspectives; each of which illuminates some important aspect of the phenomenon in question.

<sup>18</sup> For instance, Watkins and Marsick (1993:111) suggest “teams, not individuals, are the fundamental learning unit in modern organizations.” And, while Senge (1990) recognizes the role of individual learning by profiling the personal mastery discipline, likewise he argues:

Team learning is vital because teams, not individuals, are the fundamental learning unit in organizations. This [is] where “the rubber meets the road”; unless teams can learn, the organization cannot learn (Senge, 1990: 10).

A similar affirmation for team learning is also evident in the account by Dechant and Marsick (1993) who present a conceptual model of collective learning. They argue that when learning becomes a joint venture among the members of a group, responsibility no longer rests with the individual, but instead becomes the collective responsibility of the entire team.

Other accounts of team learning are more stringent—these qualify the idea of collective learning with a precondition of performance improvement. Such is the case with D’Andrea-O’Brien and Buono (1996), for example, whom contend that team learning is a function of combined knowledge if and only if it enables improved team and organizational performance. At the same time, some of the more incredulous investigators in the research community submit that while team learning is possible it is not necessarily indicative of organizational learning since outcomes may remain localized, fragmented or situational without ascension to the larger organization (Brousseau, 1997; Fiol and Lyles, 1985; Kim, 1993; Maxwell, 1997). They maintain, what’s more, collective knowledge need not exceed individual knowledge nor is it a guarantee that either the organization or society (Giordano, 1995; Watkins, 1996) will be better off.

Still others add that dysfunctional patterns of organizational behavior can countermand productive learning and pose threats to effective action (Argyris, 1999: 13; Cyert and March, 1963; Simon, 1976). And, along these same lines, untold authors criticize organizational learning on the grounds that organizations learn to preserve the status quo thereby undermining change and improvement initiatives (Fiol and Lyles, 1985; Levitt and March, 1988).

On the tripartite relationship between levels of learning in the organization, there is a growing body of interpretations as well. Opposing arguments abound; the issue hangs on the assumptions that one makes both about learning and the connection between “individual, interpersonal, and higher levels of social aggregation” (Argyris, 1999: 13). In other words, is organizational learning merely the calculus of shared learning by individuals on behalf of and in the context of their organization or is it an emergent characteristic of an organization of and by itself?

A number of authors concur that learning by individuals is endemic to organizational learning (Marsick and Neaman, 1996; Mumford, 1991; Pedler, 1995; Watkins, 1996). And, for many among them, it is only by understanding how individuals learn that we begin to understand how organizations learn because, they reason, all learning begins with the individual; therefore, organizational learning is a function of individual learning (Espejo, et. al., 1996; Kerka, 1995). Hence, organizational learning is an extension of the individual learning that occurs in the setting of an organization, which further implies that organizations learn as individuals do. But in claiming an organizational referent here, there is the inherent trap of reification (Weick and Westley, 1996: 441) or tautologous reasoning; that organizational learning is learning in organizations does not impart much meaning.

By contrast, others view organizational learning as something more than or different from just the collective learning of individuals—rather, OL has unique characteristics all its own (Dechant and Marsick, 1991; Kim, 1993; Marquardt, 1996; Senge, 1990), which derive from an infrastructure and climate that is conducive to learning. This suggests that different forms of organizing either promote or inhibit learning. Accordingly, Pedler, Burgoyne, and Boydell (1991) cite eleven traits that both distinguish an organization as a learning organization as well as support learning processes. These “learning company characteristics” include:

- 1) The learning approach to strategy;
- 2) Participative policy-making;
- 3) Informating (everyone has access to the knowledge they need);
- 4) Formative accounting and control;
- 5) Internal exchange;
- 6) Reward flexibility;
- 7) Enabling structures;
- 8) Boundary workers as environmental scanners;
- 9) Inter-company learning;

10) Learning climate; and

11) Self-development opportunities for all (Snell and Chak, 1998: 336-337).

But, here again, we sidestep the issue of linkages between levels. While this approach articulates some of the conditions under which learning occurs, it does not explain how different processes carried out by individuals and groups interact to yield the phenomena of OL.

Finally, others make a distinction between learning levels by anointing team learning the bridge between individual and organizational learning (Marquardt, 1996; Mohrman, Cohen, and Mohrman, 1995; Senge, 1990; Watkins and Marsick, 1993). As a consequence of synergy, the knowledge and insights of each individual—i.e., personal mastery and mental models—converge and evolve into collective learning by the group—i.e., team learning—which subsequently becomes embedded in structures, roles and procedures that are available to the organization at large (Marsick and Neaman, 1996; Redding and Catalanello, 1994). Thus, researchers of this mindset see organizational learning as a process of learning that occurs at the same time across various levels, promoting collective change and transformation of the total organization.

Clearly, the way that researchers handle the matter of aggregation affects how they will handle learning in an organizational context. Unfortunately, selective attention to features at any given level does not reconcile the relationship between levels nor does it settle the debate whether learning is an individual or collective normative phenomenon.

<sup>19</sup> In effect, “learning disconnects” are barriers to effective action. Cutcher-Gershenfeld and Ford (2005:59) define learning disconnects “as the gap between what was intended (the aim) and what actually occurred (the reality).” According to these authors, there are a number of predictable disconnects in organizations that are neither good nor bad; rather, these are valuable data that organizations can and should document, analyze, learn from, and even anticipate (Ibid). Among the precipitating factors that bring about learning disconnects in organizations are the following: an undying allegiance to the status quo; incomplete information; abandonment of one approach for another without sufficient analysis of either; and a lack of coordinated effort (Ibid).

It is interesting to note the strains of strategic planning and quality management in the Cutcher-Gershenfeld and Ford (2005) perspective as well as its close parallel to the creative tension between vision and reality that Senge (1990) describes in *The Fifth Discipline*, which he submits is a useful precursor to learning if one learns to harness the tension.

<sup>20</sup> Levitt and March (1988: 325) submit that “superstitious learning” occurs when “the subjective experience of learning is compelling, but the connections between actions and outcomes are mis-specified.” In other words, superstitious learning happens when we rush to judgment to wrongly deem correlation to mean causation (Huber, 1998: 6).

<sup>21</sup> “Trained incapacity” (Veblen, 1914) is the inability to adapt to new conditions or unfamiliar situations, due to blind spots that occur as a consequence of past experience, learned norms, or prior expertise (Hall, 1960; Schaefer, 2006).

<sup>22</sup> Merton (1940) posited the existence of a bureaucratic personality that emerges when workers internalize the rules and standard operating procedures of an organization to the point of having an obsession with procedural compliance that supersedes doing the job correctly (Bozeman and Rainey, 1998; March and Simon, 1958; see also note 2).

<sup>23</sup> “Bureaupathology” (Thompson, 1961) is a catch phrase for the set of problems that arise when “Weberian bureaucracy runs amuck” (Bozeman and Rainey, 1998: 168). Elements of bureaupathic behavior include aloofness, undue attachment to routines and procedures, resistance to change, petty insistence upon rights of authority, and other such dysfunctional and/or irrational patterns of conduct that can detract from the attainment of an organization’s goals (Bozeman and Rainey, 1998; Caiden, 1971; Foster and Jones, 1978; Thompson, 1961: 152, 153). According to Thompson, insecurity due to uncertainty from unforeseen events is the number one cause of bureaupathic behavior.

<sup>24</sup> Levinthal and March (1993) looked at the potential of experiential learning in organizations as a vector for attaining knowledge. Given that organizations employ two major modes for learning from experience—simplification and specialization—the authors submit that organizations are prone to three forms of learning myopia: temporal myopia or overlooking distant times, spatial myopia or overlooking distant places, and failure myopia or the risk of overlooking failure (Antal, Dierkes, and Tsui-Auch, 2001; Sloane, 1999). In weighing the strengths and weaknesses of the learning metaphor for strategic management, Levinthal and March noted the need to maintain an appropriate balance between “exploitation and exploration” (March, 1991). They concluded that learning myopia is not so grave as to preclude efforts to improve organizational learning capabilities (Sloane, 1999). Antal, Dierkes, and Tsui-Auch (2001) credit this paper as an important contribution to our knowledge of OL, inasmuch as it provides a counterpoint to the overly “optimistic and simplistic” expectations of the proponents of the learning organization.

<sup>25</sup> Organizations have a natural tendency to forget what they know and repeat mistakes (Conklin, 2001 as cited in Othman and Hashim, 2004). Organizational amnesia is the inability of organizations to tap into accumulated corporate knowledge or history in order to adapt to conditions or create value (Kransdorff, 1998; Othman and Hashim, 2004).

<sup>26</sup> Incomplete or fragmented learning occurs when learning remains at the individual level without the necessary transfer of learning systemwide (Espejo et. al., 1996; Sloane, 1999).

<sup>27</sup> Superficial learning occurs when new learning is either cursory or not clear due to a lack of detail or understanding to explain changes in mental models (Espejo et. al., 1996; Sloane, 1999).



<sup>28</sup> Defensive routines are actions that allow members of the organization to avoid the threat or embarrassment of inappropriate behaviors, unacceptable performance, or revealing our thoughts to others (Argyris, 1985, 1992; Sloane, 1999). The source of defensive routines, according to Argyris, starts early in life and comes from the anxiety of being wrong or judged in error by others. Like a protective shell around our deepest assumptions and feelings, defensive routines keep us safe from the perceived threat of exposing what we think.

<sup>29</sup> Building on the prior work of others, such as March and Olsen (1988), Argyris and Schön (1978), Kim (1993), and Espejo et al (1996), Showing et al (1999) envision OL as a system of interlocked behaviors between various learning feedback loops. Further, they posit, obstructions lie in wait to impede learning as a result of flawed feedback, which can arise due to role constraints, audience restrictions, superstitions, ambiguity, superficiality, fragmentation, opportunism (Kim, 1993; Espejo et al, 1996; Levitt and March, 1988) and a host of other such problems. Given that the introduction of any single barrier may impinge upon learning in a harmful way, an organization must take counter measures to prevent these problems from interrupting the continuity of organizational learning (Sloane, 1999).

<sup>30</sup> As noted earlier, there is a fundamental fault line that divides the intellectual landscape of learning in organizations into two separate literatures, the practice-based, prescriptive literature of the learning organization and its unconvinced, scholarly counterpart, the literature on organizational learning (Argyris, 1999; Argyris and Schön, 1996; Easterby-Smith et al, 1998; Edmondson and Moingeon, 1998; Leitch et al., 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Sun, 2006; Tsang, 1997). Legend has it that this dichotomy became especially obvious following a keynote speech by Peter Senge, at a meeting of the Strategic Management Society's Toronto conference held in 1992. According to three conference attendees,

After a keynote speech by P. Senge on the "learning organization," an informal poll of participants pointed to the existence of two groups: academics who thought the address to have been mere "preaching," and practicing managers and consultants who "loved" it (Friedman et al, 2001: 757).

Although the scholarly camp claims to eschew a normative view of OL because of the "relatively unchangeable features of people and organizations", one gets the feeling that they are not so tolerant of those other writers who promote OL as "a process with the potential to transform [both] organizations" and the quality of worklife therein for their members (Ibid).

For example, in describing the differences between the two groups, Friedman et al (2001) describe this dichotomy as a fundamental break between "skeptics and visionaries". Are they sincere; or, is this palatable distinction just a polite euphemism to portray the dispute between two rival factions, the erudite scholars and their lowbrow practitioner-consultant

counterparts –i.e., those “less fortunate mortals” who in their “philistine defiance” (Porter, 1933 as cited in McBrien, 1998: 159) view organizational learning as something desirable, possible, and necessary to do?

<sup>31</sup> Variations include the basic action research method employed, the character and degree of collaboration, and the role of the action researchers (Chisholm and Elden, 1993). Accordingly, Raelin (1999) identifies six such action strategies or methods for planned inquiry. He notes that while they share common elements, their proponents also argue vehemently about the differences. A brief description for each approach follows.

- *Action Research*, itself, constitutes a process wherein researchers participate in studies both as subjects and objects with the explicit intention of bringing about change through the research process.
- *Participatory Research* (Southern School) is concerned with knowledge and power. It seeks collaboration between those privileged groups who often control the production of knowledge and those among the economically disadvantaged who by questioning the dominant values within society can press for social change.
- *Action Learning* is based on the pedagogical notion that people learn most effectively when working on real-time problems occurring in their own work setting.
- *Action Science* is an intervention method based on the idea that people can improve their interpersonal and organizational effectiveness by exploring the hidden beliefs that drive their actions.
- *Developmental action inquiry* is the systematic attempt to enrich a person’s, group’s, organization’s, or society’s consciousness of the interplay among transpersonal awareness, subjective interpretations and strategies, intersubjective practices and politics, and objective data and effects.
- *Cooperative inquiry* is a form of research where everyone serves dual roles, as co-investigators and co-subjects. As co-researchers, all participants generate ideas and both design and manage projects. As co-subjects, all that participate in the activity are targets of study—they are also being researched (Raelin, 1999: 116-118).

## Chapter 6

### THE QUALITY THREAD

Quality management (QM) is a panoptic approach for quality development, the essence of which is a holistic mindset and a shared commitment to excellence (Milakovich, 1995) and constant improvement that permeates the collective practices and values of the entire organization (Marquardt, 1996; Oakland, 1999). A progeny of systems thinking (Hart and Bogan, 1992; Ziegenfuss, 1993) and the OD field (Ciampa, 1992), QM is concurrently a conceptual forerunner and complement to the learning organization idea. Accordingly, the Quality Thread maps to systems thinking and the LO's manifestation of culture, *Shared Vision* and *Mental Models*, as shown in Figure 6-1. This chapter considers the complementarity between QM and LO to gain insight how this relation contributes to a systemwide mindset for excellence and a shared vision to learn.

#### Unraveling the threads of the Learning Organization<sup>1</sup>

You Are Here	Conceptual Threads	Senge's Five Disciplines
	A. The Systems Thread	Systems Thinking
	B. The Human Relations Thread	Personal Mastery Team Learning
	C. The Culture Thread	Shared Vision Mental Models
	D. The Learning Thread	Personal Mastery Team Learning
⇒	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
	F. The Structural Thread	Systems Thinking

Figure 6-1

## *Introduction*

For more than two decades interest in the field of quality management (QM) has grown significantly (Douglas and Judge, 2001; Jack et al., 2001; Juran, 1981; Kehoe, 1996) and the phrase “total quality management” (TQM) today remains one of the most widely used expressions in the business lexicon.<sup>2</sup> As a part of the common management vernacular, TQM is unreservedly employed as a generic descriptor for the package of tools, techniques, concepts, and theories related to quality development (Kehoe, 1996).

Notably, a number of authors maintain that the term “total quality management” has “fallen out of favor” in recent years due to a long list of implementation failures<sup>3</sup> (Ackoff, 1998; Cole, 1995; Evans and Lindsay, 1999:xvii; Huddleston, 1995; Merrill, 1995; Porter and Tanner, 1996; Zairi, 1994). That is to say, not all organizations that have adopted TQM have benefited from it (Becker, 1993; Brigham, 1993; Vazzana et al., 2000) and many skeptics challenge its efficacy and appropriateness outside the sphere of business (Seymour, 1993, 1994a, 1994b; Sorensen, 2002; Thor, 1994). But, even in the wake of the attending disenchantment that accompanies unfulfilled expectations and setbacks, the backlash against TQM<sup>4</sup> (Forbes, 1994; Milakovich, 1995; Oakland, 1999; Sashkin and Kiser, 1991; Zairi, 1994) has not dampened enthusiasm for either the broader pursuit of quality per se or its telos, continuous quality improvement (CQI) (Cole, 1995; Evans and Lindsay, 1999). Indeed, out of the failed endeavors learning has occurred (Merrill, 1997) and with it has come an ever-expanding corpus of new insights and knowledge on what it takes to advance organizational excellence (Cole, 1995). There is, moreover, consensus that when thoughtfully applied and adapted, the tenets of CQI

embody sound management practice and provide a rational, effective means to respond to customer needs (Bounds et al., 1994; Evans and Lindsay, 1999; George and Weimerskirch, 1994; Huddleston, 1995; Main, 1994; Milakovich, 1995; Oakland, 1999; Porter and Tanner, 1996; Zairi, 1994).

Nevertheless, treading on the heels of countless reported failures, the expression total quality management has tended to take on a rather negative connotation (Cole, 1995; Evans and Lindsay, 1999), however undeserved that reputation may be. In fact, some people now employ the moniker TQM only in a historical sense to depict the formative years of the American quality movement, with more recent developments in the field coming instead under alternate, less tainted headings such as total quality (TQ) and/or quality management (Evans and Lindsay, 1999; Porter and Tanner, 1996). But, regardless whether or not one agrees or disagrees with the assertion that TQM is currently passé, there are many recent pieces on the development of high performance systems which still carry the label total quality management in their titles, in their abstracts, and in the body of their discussions.<sup>5</sup> This paper, therefore, in opting for substance and simplicity over semantics, treats QM, TQ, and TQM as synonymous terms that refer to an organization's efforts to institutionalize the principles of quality and constant improvement.

With that in mind, next we explore the linkages between quality, quality management, and the components of a quality management approach. The central theme of this section is the idea that in order to improve quality organizations must improve organizational systems and processes. To better understand the challenges associated with this premise, it is useful to first develop working definitions for quality and quality

management, respectively. Then, a brief retrospective of the past helps to place contemporary organizational practices in context as we trace the advance of the quality management paradigm. From there, it is back to the future as we examine the current state of the QM knowledge domain—specifically, its successes and failures in the bid for legitimacy and intellectual recognition. Last but not least, this chapter concludes with a discussion on quality management in the context of learning organizations.

### *What Is Quality? The Search for an Operational Definition*

Largely due to Japan's stunning post-war recovery following World War II and its subsequent emergence as a world economic power (Capezio and Morehouse, 1993; Chowanec, 1994), the positive relationship between quality and market position is now axiomatic; quality management is a key strategy for success in the global marketplace. As such, copious organizations across all economic sectors<sup>6</sup> have adopted a total quality approach in hopes of enhancing their performance and competitive standing (Hiam, 1993; Jacob, 1993; Tuttle, 1994). At the core of these efforts is a ubiquitous definition of quality that is very often verbalized as "*meeting or exceeding the customer's expectations*" (George and Weimerskirch, 1994; Kehoe, 1996:1).<sup>7</sup> But, notwithstanding the outward simplicity of this idea, few people when asked are able to define quality in measurable or operational terms (Ross, 1995:96). Beneath the facile façade of popular rhetoric is the thorny, practical matter of implementation.<sup>8</sup>

"What counts as quality" (Gutmann, 1991) is inherently problematic because quality is an elusive idea that defies easy definition (Bounds et al., 1994; Davies, 1991; Garvin, 1988; McNealy, 1993; Shields, 1999). While often described from a

“transcendent” (Garvin, 1988:40-46) point of view<sup>9</sup> as “innate excellence” (Bounds et al., 1994:45), quality is a relative property that varies in different settings and circumstances (Davies, 1991) and means a host of different things to different people<sup>10</sup> (Ross, 1995; Spenley, 1992). Hence, quality is largely “an intangible” (Besterfield et al., 1999:5); it is an impression based on the perceptions of the observer.<sup>11</sup>

Yet granting that quality *just* exists in the “eye of the beholder” (Doyle, 1991:54-62) or that quality is recognizable *only* when we see it (Prisig, 1974) is not especially enlightening since it tells us nothing of *how to do it*. That is to say, from the perspective of implementation an inchoate perception of quality alone imparts no real insight as to either the practice or attainment of excellence (Bounds et al, 1994). And, even if an organization should happen to adopt the customary refrain of “total customer satisfaction” (Saylor, 1996:2) as the definitive quality standard, the organization still must translate this idea into action. Accordingly, the organization must identify who the customer is<sup>12</sup>, determine what the customer wants, and confirm that their requirements have been met (Kehoe, 1996:1).<sup>13</sup> The organization, moreover, needs to do all of this better than any of its compeers (Kordupleski, 1994) to reap the competitive advantages promised by quality advocates!

For countless organizations wishing to embrace quality as a competitive strategy, subjectivity and imprecision breeds many persistent questions. Above all, if quality is too recondite to define, how can an organization manage it? Without a firm grip on *what* it is, how can an organization improve upon it? If quality is “what the market says it is,” how does an organization know “a priori” (Tapiero, 1996:3) who the customer is and what it is

that they want?<sup>14</sup> By the same token, how does the implementing organization reconcile competing definitions for quality given the context of diverse customer needs and rival perspectives? And, in an even more fundamental sense, is the development of a customer-focused quality definition relevant across the board, appropriate in all situations and for all organizational types?

Clearly, quality is “complicated and has many dimensions” (Shields, 1999:1) that in concert lend inferential meaning to the concept (Tapiero, 1996). Nonetheless, devoid of an integrated plan to delineate, achieve, and track quality efforts, the concept is way too vague to be practical (Shewhart, 1931:37) and the transcendent quest for continual improvement nothing more than a woolly pursuit paved with certain disappointment.

Bounds (1994:46) and associates suggest that to be useful and inspire purposeful change, a definition of quality must be “pragmatic, objective, and tangible.” In other words, quality must be quantifiable in some way, shape, or form to be meaningful and suggest improvements; otherwise it remains “an unusually slippery concept, easy to visualize and yet exasperatingly difficult to define” (Garvin, 1988:xi). Or, as one author so succinctly explains the necessity for quantification,

There is an old maxim in management which says, “If you can’t measure it, you can’t manage it,” and so it is with quality (Ross, 1995:97).

At the same time, however, the converse is also true. Without a transcendent quality vision—that is, a guiding, heartfelt philosophy of excellence that pervades the entire organization (Bounds et al., 1994; Marchese, 1994:435; Oakland, 1999; O’Banion, 1997; Peters, 1988) –benchmarks and other such indicators are hollow metrics. Harari



(1993) observes, for example, that countless quality programs founder when the focus is solely on efficiency standards and correct processes. Such efforts are sterile and devoid of human passion. They lack the “love” that inspires connection to the organization by its members and to its products by its customers (Bounds et al, 1994:43). Without the fire of human emotions such as joy, zeal, fun, fury, sadness, concern, enthusiasm, and excitement, Harari submits that there is no real quality. In an account of why quality management programs can and do fail, he argues:

TQM has no place for love. By this outrageous statement, I mean that when all is said and done, TQM attempts to make quality happen via an analytically detached, sterile mechanical path. What’s often missing, frankly, is emotion and soul. Go out and look at all the sincere individuals diligently following the step-by-step processes they’ve learned in TQM ... and ask yourself: “Where’s the *love* of our product and our customer? Where’s the *joy* of the pursuit of excellence? Where’s the *passion* in the doing and the creating? Where’s the *fun* in being here? Where’s the *rage* and *agony* in the slightest snag in product or service quality? Where’s the *thrill* in accomplishment?” If you can’t find evidence of these, you probably won’t find real quality either. Dr. Frankenstein learned that humans are more than anatomically correct bodies; Mr. Salieri learned that music is more than correct notes. Similarly, we all are learning that quality is more than correct processes (Harari, 1993:37).

Thus, quality is a lot like fine art: it is a manifestation of value—something concrete and measurable—combined with aesthetic appreciation by an adoring spectator—something experiential based on individual sentience and/or personal perception. Given the apparent tension between the need for “hard” data and the human element (e.g., a transcendent vision), there is now considerable consensus that the defining properties of quality derive from the interactions of tangible *and* intangible elements (Ciampa, 1992; Schein, 1991). In other words, the concept of quality is a composite construct—a whole—whose meaning emerges out of the union of objective

and subjective (Tapiero, 1996:3) criteria. To manage quality then is to manage this whole—to wit, the interrelationships between people and processes (i.e., both technical and psychosocial systems) that bear on the organization's ability to provide superior customer value (Bounds et al., 1994; George and Weimerskirch, 1994). Concerning this very point, Tom Peters (1988) fittingly admonishes,

Most quality programs fail for one of two reasons: They have system without passion, or passion without system. You must have both. ... [In the end it] makes little difference which system you choose ... so long as it is thorough and rigorously followed (Peters, 1988:74).

With this caveat in mind, the prospect and exigency of an one-size-fits-all definition that applies equally to all organizational situations and cultures is of neither theoretical nor practical import; how a particular organization defines quality depends on its mission, its values, and the activities it performs as an entirety to satisfy stated and implied customers' needs (Costin, 1994; Fortuna, 1990; Gutmann, 1991; Ross; 1995; Tapiero, 1996; Wiggenghorn, 1991).<sup>15</sup>

Notwithstanding the elusiveness of a grand or all-encompassing definition however, it is still possible to articulate a cohesive set of unifying principles common to a preponderance of the literature, thus framing the concept of quality from the perspective of the organization that aspires to implement it (Ciampa, 1992; Fortuna, 1990; McNealy, 1993). Accordingly, quality is a complex concept (Tapiero, 1996) that embodies the following fundamentals:

1. Quality is *customer-driven and defined*.<sup>16</sup>
2. Quality is a *journey of continuous improvement and learning*.<sup>17, 18</sup>

3. Quality requires the commitment and ardor of a *quality-focused culture*.<sup>19</sup>
4. Quality begins with *visionary leadership*.<sup>20</sup>
5. Quality grows out of *employee empowerment, participation and learning*.<sup>21</sup>
6. Quality requires a *long-range view of the future*.<sup>22</sup>
7. In the quest for quality, *process* is the target for continuous improvement and *measurement* is the agent for action.<sup>23, 24</sup>

For the purposes of this research paper, these precepts taken together broadly “define” and operationalize quality. Based on their range of purview and functional engagement, it is evident that quality is something that applies to every aspect of an organization. Clearly, it is a systems issue. To manage quality then is to seek synergy among these foundational, interrelated elements and in so doing enhance the organization’s ability to provide superior customer value (Bounds et al., 1994; George and Weimerskirch, 1994).

#### *What is Quality Management? A Working Definition*

Formally defined, quality management is “a philosophy of management that is driven by the constant attainment of customer satisfaction through the continuous improvement of organizational processes” (Robbins, 2001:15). By and large, QM encompasses “the totality of ways for achieving quality” (Schuler and Harris, 1992:192). Part art and part science (Grant, 1994), QM is a comprehensive approach for quality development, typified by a holistic mindset, strategic imperatives, and a focus on people, customer feedback, measurement, continual learning, and repeated amelioration of performance or *kaizen*<sup>25</sup> (Ciampa, 1992; Hyde, 1997; Imai, 1986; Kehoe, 1996; Procter

and Gamble, 1992; Tapiero, 1996; Zairi, 1994). With teamwork as its linchpin (Mohrman, Cohen, and Mohrman, 1995; Robbins, 2001), the essence of quality management is an unwavering commitment to excellence (Milakovich, 1995) that permeates the collective practices and values of the entire organization (Marquardt, 1996; Oakland, 1999).

From the standpoint of evolution, contemporary quality management theory and practice is both a child of systems thinking (Hart and Bogan, 1992; Latzko and Saunders, 1995; Ziegenfuss, 1993) and a progeny of the OD field (Ciampa, 1992) –the conceptual parentage from which it derives its emphasis on overall performance, integrated work activities, humanistic values, collaboration, and positive change. And, like its close and cognate cousin, the learning organization paradigm, QM aspires to make continual learning a way of organizational life for the purpose of improving the enterprise as a total system (Senge, 1994:60). As such, the intent of QM is not to be an end in itself, but a means to a better organization (Ciampa, 1992:41) –one with the enhanced capacity for constant improvement, more effective action, high performance work, self-renewal, passion, excitement, and the delivery of superb customer value (Bounds et al., 1994; Drucker, 1994; George and Weimerskirch, 1994; Harari, 1993; Milakovich, 1995; Mische, 2001; Mohrman and Cummings, 1989; NIST, 2001; Senge, 1990).

All told, there are many different ways to look at quality management.<sup>26</sup> There are many diverse applications and research issues associated with QM that derive from its “intrafunctional” focus (Lederer, 1997), its history, and the specific purposes of the author or implementer. Next we consider the succession of theories and ideas in the

continuing saga of what it means to manage quality. The following segment presents some historical highlights in the evolution of QM, from which we gain insight into the whys and wherefores of present-day developments and contemporary organizational practice.

### *Historical Underpinnings and Development of QM/TQM*

While a behavioral scientist in the U.S. Navy receives credit for first coining the moniker “total quality management”<sup>27</sup> in the mid-1980s (Bounds et al., 1994; O’Banion, 1997; Schmidt and Finnigan, 1992:12; Walton, 1990), the concept of quality and a concern with it is actually very old (Garvin, 1994; Kehoe, 1996; Sanderson, 1995). All through history, society has demanded that its purveyors of goods and services satisfy their commitments to the customer. Many early merchants observed a link between quality and wealth, upon which they acted and aggressively pursued excellence as a strategy. Moreover, it is worthy of note that a range of contemporary QM practices were already underway by the middle of the nineteenth century (Sanderson, 1995), despite the fact that the discipline has emerged only recently as a formal management function (Garvin, 1994). Some early demonstrations of quality management ideas help to illustrate the timelessness and prolonged existence of quality concerns.

### *Ancient Beginnings*

The roots of the quality movement are traceable to ancient times. As one of the earliest displays of quality, Sanderson (1995:28) notes that the tombs of the ancient pharaohs exhibit wall paintings of Egyptian craftsmen making gold artifacts, many of

which have survived to the present day. Likewise, many beautiful artifacts have survived from the Inca civilization in South America, from Ur in the Euphrates valley, and from Minoan Crete (Ibid). Given the durability of the relics, Sanderson (1995:28) submits “there seems little doubt that these ancient craftsmen practiced many of the principles of TQM.” In particular, there is evidence to suggest that early artisans were expected to stand by the quality of their work.

For example, in 1700 BC the ruler of Babylon instituted the idea of product quality and accountability in building construction. The penalty for foundering foundations and rickety rafters as per King Hammurabi’s stern decree was immediate death to the would-be jerry-builder and his offspring, based on the following circumstances:

... if a building falls into pieces and the owner is killed then the builder shall also be put to death. If the owners’ children are killed then the builders’ children shall also be put to death (Kehoe, 1996:2).

### *Middle Ages*

Centuries later, crafts guilds emerged during the Middle Ages to define and guarantee the quality of workmanship (Kehoe, 1996). In the early fourteenth century, the stewards of the goldsmiths’ craft guild in London stamped precious metals with a leopard’s head to certify the quality of gold and silver. According to Sanderson (1995:29), from this beginning in medieval England emerged a network of Assay Offices around the United Kingdom that still exist to the present day with a statutory duty to hallmark all precious metals sold in the UK.

As early as the seventeenth century, quality assurance in the form of after-the-fact inspection and standard operating procedures emerged as an important precursor to commercial success in the manufacture of furniture. Jean-Baptiste Colbert, finance minister to Louis XIV and founder of the Gobelins Royal Furnishings factory in 1662 observed shortly after the company's genesis:

If our factories, through careful work, assure the quality of our products, it will be to the foreigners' interest to get supplies from us and their money will flow into the Kingdom. (Howard, 1992:63)

Needless to say, profitability was a powerful source of motivation even back then. To ensure that Gobelins' master craftsmen produced only the finest furnishings, Colbert introduced the concept of product liability into the production process. The typical penalty for faulty workmanship or nonconformance to standard procedures was public ridicule by lock down in a pillory (Howard, 1992), a wooden frame with holes to immobilize the head and hands. (Lucky for these folks that the much more deadly guillotine was not invented until 1814!)

Notwithstanding the severity of Colbert's management methods and their lack of parity vis-à-vis modern-day TQM philosophy, his strong customer orientation and pursuit of excellence do render him still one of the forerunners of the present day quality movement. In particular, he played a major role in advancing the standards of excellence by which industry was measured (Howard, 1992:64; Sanderson, 1995).

## *Industrial Revolution*

During the Industrial Revolution, a lot of technological advances of the day such as the development of the steam engine in 1751 were made possible through advances in metrology (i.e., the science of measurement) and the standardization of parts such as screw threads (Kehoe, 1996:2).

The concept of specialization of labor also was introduced during the Industrial Revolution. This change brought about a decline in workmanship because a worker no longer made the entire product, only a piece of it. As products became more complicated and jobs more specialized, it became necessary to inspect products after their manufacture (Besterfield et al., 1999:6). A key breakthrough in this regard came in the development of “a rational jig<sup>28</sup>, fixture, and gauging system,” which “gave inspection new respectability” (Garvin, 1994:28). Through the gauging system, inspection evolved into “a more objective, verifiable process” because it no longer relied on having a good eye or on personal judgment (Ibid).

A seminal figure in the annals of quality history from this period was inventor, manufacturer, and entrepreneur, Eli Whitney (1765-1825). While commonly known as the inventor of the cotton gin (Hart and Bogan, 1992; Howard, 1992), Eli Whitney’s reputation in the quality field rests instead on another achievement: Many credit Whitney as the first person to come to terms with “the practical problems of variation” –he devised a production method based on the use of jigs that enabled him to produce rifles with interchangeable parts (Howard, 1992:65).<sup>29</sup>



A century later the industrialist Andrew Carnegie (1835–1919) founded Carnegie Steel on a belief in quality (Howard, 1992), which he put into words as follows:

I have never known a concern to make a decided success that did not do good, honest work, and even in these days of the fiercest competition when everything would seem to be a matter of price, there lies still at the root of great business success the very much more important factor of quality!” (Howard, 1992:64; Sanderson, 1995:29).

This philosophy of good honest work at a competitive price enabled Carnegie to build his steel empire and outmaneuver all his rivals in the field during the depression of the 1870s (Tompkins, 1996:108-109). Moreover, it illustrates the underlying, decidedly strategic rationale for pursuing quality we find today—to gain the competitive edge over other players in the field.

### *Into the Twentieth Century*

The advent of mass production and the need for interchangeable parts in the twentieth century placed increased demands upon the control of product quality (Kehoe, 1996). With the maturation of American manufacturing, inspection grew in importance (Garvin, 1994).

### *Inspection*

In the early 1900s, Frederick Taylor, renowned father of scientific management, gave added legitimacy to the inspection process when he designated it a duty for one of eight foremen required for effective shop management (Garvin, 1994):

The inspector is responsible for the quality of work, and both the workmen and the speed bosses [who see that the proper cutting tools are used, that

the work is properly driven, and that cuts are started in the right part of the piece] must see that the work is finished to suit him. This man can, of course, do his work best if he is a master of the art of finishing work both well and quickly (Taylor, 1919:101).

A second notable development related to inspection occurred in 1922 with the publication of G.S. Radford's book, *The Control of Quality in Manufacturing*. This work formalized the relationship between inspection and quality control (Costin, 1994; Garvin, 1994). With close to forty percent of the book devoted to inspection (i.e., 9 out of 23 chapters), Radford built a case for the relationship between conformance to standards and quality. According to Radford (1922:5), the customer's "principal interest in quality [was] that evenness or uniformity which results when the manufacturer adheres to his established requirements." Garvin (1994) credits this work as the first to regard quality as a "distinct management responsibility" and as an "independent function." Quality control remained limited to inspection until the 1930s.

### *Quality Control (QC)*

A defining moment for the quality movement occurred in the year 1931 with Walter Shewhart's publication, *Economic Control of Quality of Manufactured Product* (Sanderson, 1995). Herein Shewhart, a physicist, urged his readers to ponder the subjects of psychology, philosophy, and logic to better comprehend how the mind behaves, how the world functions, and how reasoning works (Howard, 1992:67). This classic redefined the role of the quality professional and gave the discipline an empirical footing for the first time (Garvin, 1994).

Using laws from probability and statistics, Shewhart proposed an operational definition for process control and suggested ways to improve the quality of production by monitoring, measuring, and evaluating samples of output during the course of manufacture (Dobyns and Crawford-Mason, 1994:135; Garvin, 1994:29; Kehoe, 1996:135).

Shewhart was the first to point out that variability was unavoidable in production; any given operator on a single machine was likely to show variation over time (Garvin, 1994:30). Hence, the problem facing management was not so much the existence or occurrence of variance but how to distinguish its causes. In other words, how does management tell apart genuine problems from those owing purely to chance? Following this line of inquiry, Shewhart plotted observed production values against expected limits of variation on a “process control chart.” This graphical technique, which is still in use today, remains a powerful tool in the quality professional’s toolbox.

Another critical breakthrough to emerge around the same time that Shewhart worked on process control advanced the practice of sampling. Researchers Harry Romig and Harold Dodge, fellow colleagues of Shewhart at Western Electric, were the leading movers in this effort (Garvin, 1994:30). They developed the area of acceptance sampling as a proxy for 100 percent inspection (Besterfield et al., 1999:6).

While these and other such breakthroughs helped to improve the quality of telephone equipment and service, they did not gain widespread use until World War II, when there was a need to produce munitions in large volumes. Nevertheless, Garvin (1994) submits that many of the tenets and practices of modern-day quality control are

traceable to the work of Shewhart and other researchers at Western Electric. Together, these luminaries created the present-day discipline of statistical quality control.

During the 1940s and 1950s, the function of quality control developed into an important aspect of business management as organizations sought to gain competitive advantage and reduce costs through the inspection of product quality (Besterfield et al., 1999; Goetsch and Davis, 1997; Kehoe, 1996:2). The emergence of a professional organization in 1946 was a landmark occurrence in propelling the field forward (Besterfield et al., 1999:6; Garvin, 1994). By the end of the decade, QC was a recognized discipline and the American Society for Quality Control (ASQC) its dominant professional group. Today, known as the American Society for Quality (ASQ), this organization through its publications, conferences, and seminars works to promote the use of quality for all types of production and service.

### *Quality Assurance (QA)*

The 1950s ushered in the next stage in the evolution of the quality field—quality assurance—with the publication of several key works and events that helped to expand the collective perspective of the profession beyond statistics. In particular, five new or enhanced conceptual elements emerged that served to define the character and buttress the development of the QA era. This included the application of statistical process control to work situations as well as the revelation of the following ideas: total quality control; costs of quality; reliability engineering; and zero defects (Garvin, 1994; Kehoe, 1996; Pike and Barnes, 1994). As a result quality evolved from a manufacturing-based

discipline to one with broader and deeper ramifications for management (Bounds et al., 1994; Garvin, 1994).

A number of sages from this era—namely, Deming, Juran, Feigenbaum, Ishikawa, and Crosby—receive the lion’s share of the credit for masterminding contemporary quality management theory and practice (Capezio and Morehouse, 1993; Costin, 1994; Hackman and Wageman, 1995). And, among these men, Deming is perhaps the most noted proponent of the quality management approach (Brocka and Brocka, 1992; Ehrenberg and Stupak, 1994; Mrozowski, 2001; O’Banion, 1997; Schultz, 1994; Vinzant and Vinzant, 1996). For Deming, quality was a lifework—a pursuit that evolved from an early concern with statistical process control to a quest for profound insight into the role of management and the nature of organizational systems (Pike and Barnes, 1994; Ross, 1995; Schultz, 1994).

### *Statistical Process Control/W. Edwards Deming*<sup>30</sup>

Commonly called the man who taught quality to the Japanese, W. Edwards Deming first visited Japan in 1947 at the request of the occupation government to assist Japan with its census (Schultz, 1994:13). However, it was not until General Douglas MacArthur invited Deming to Japan in 1950 as part of the postwar reconstruction initiative did the full significance of Deming’s approach become apparent (Pike and Barnes, 1994:29).

In 1950, Deming presented a series of lectures on statistical methods and quality concerns both to Japanese engineers and the CEOs of the largest organizations in Japan

(Besterfield et al., 1999). Widely credited as the “father of the quality movement” (O’Banion, 1997; Pike and Barnes, 1994; Senge, 1994), Deming reassigned the charge for quality matters from the action domain of inspectors to that of management practice as a whole (Costin, 1994:10). According to Deming, only management has the power to change systems (i.e., reduce variations), which are responsible for 85 percent of all defects (Ibid.). Moreover, he stressed the intrinsic motivation of people (i.e., worker pride and satisfaction) over the creation of numerical quotas (Ross, 1995). Ross (1995:4-5) adds that Deming’s overall approach focused on process improvement rather than worker error since the system, he argued, is the cause of process variation.

Deming was a prolific writer on quality philosophy and methods up until the time of his death in December 1993 at the age of 93 (Ross, 1995). It is apparent from his writings that Deming attached as much importance to people as he did to products (Pike and Barnes, 1995). Along the same lines, Ziegenfuss (1993) remarks “Deming’s approach works” because of its grounding in sociotechnical systems thinking which seeks the joint optimization of the social and technical sides of organization.

From the standpoint of philosophy, Deming’s “universal fourteen points” for management (Ross, 1995:5) embody his main views in a sequential form (Schultz, 1994:28). According to Deming (1986), these are broad, inseparable lines of action that management must adopt together to achieve a true quality transformation in the organization. They are summarized as follows:

1. Create consistency of purpose toward improvement of product and service.
2. Adopt the new quality philosophy.

3. End dependence on mass inspection to achieve quality.
4. End the practice of awarding business on the basis of price alone.
5. Identify problems and continuously strive to improve the system.
6. Adopt modern methods of training and education.
7. Institute leadership.
8. Drive out fear.
9. Break down barriers between departments.
10. Eliminate slogans and exhortations about improved productivity—especially without providing the means to achieve it.
11. Eliminate numerical quotas as performance standards.
12. Remove barriers that undermine pride of workmanship. Eliminate the annual rating or merit system.
13. Institute rigorous programs of education and self-improvement.
14. Involve everyone in the quality transformation (Deming, 1986:23-24).

Deming (1986) held the view that the Western style of management was in need of complete renovation due to “seven deadly diseases” that weaken its effectiveness (Pike and Barnes, 1995). These included:

1. A lack of constancy of purpose.
2. Emphasis on short-term profits and goals.
3. Merit ratings, evaluations of employee performance, annual reviews, and other suchlike metrics.
4. Job-hopping and mobility of top management.
5. Management by use only of visible figures with no regard for unknown, untraceable, or intangible data (e.g., the multiplier effect on sales that derive from happy customers).
6. Excessive medical costs.

7. Excessive costs of liability (Deming, 1986:97-98).

In addition, Deming canonized the importance of employee education in the causes of process variation as well as the imperative to use research to learn (Pike and Barnes, 1995; Schultz, 1994). That the famed PDSA cycle of Plan–Do–Study–Act is at the core of every improvement effort (Deming, 1986:88) is “evidence enough” of Deming’s penchant to improve the performance of the organization as a total system through continual learning (Bounds et al. 1994; Schultz, 1994; Senge, 1994:63).

The “culmination of [Deming’s] work” (Mrozowski, 2001:15) was the description of a “System of Profound Knowledge,” a comprehensive view of quality that takes into account the co-dependent nature of systems within organizations. Deming believed that the best-laid management plans go awry because they lack complete information. Without profound knowledge organizations may optimize one aspect of an organization but fail to improve another. To remedy this, Deming argued on behalf of a total systems perspective to guide quality efforts (Hart and Bogan, 1992; Latzko and Saunders, 1995; Ziegenfuss, 1993). In other words, to effect real change Deming felt that managers must understand how their systems work (Schultz, 1994). So, along with an appreciation for the system, profound knowledge entails understanding the theory of variation, theory of knowledge, and psychology (Dobyns and Crawford-Mason, 1994; Latzko and Saunders, 1995; Mrozowski, 2001; Schultz, 1994:19). Schultz (1994:199) adds, “The system of profound knowledge cannot be separated into pieces. The parts must be seen as interacting with each other.”



The Japanese have paid tribute to Deming by naming their national quality award in his honor. Called the Deming Prize, this accolade is by many accounts the most revered quality award in the world (Schultz, 1994:13). Though usually awarded annually to corporations in Japan that show great improvement in quality control (Ross, 1995:63), Florida Power and Light won the coveted Deming Prize in 1990 (Bounds et al, 1994).

*Costs of Quality/Joseph M. Juran*

In 1951, Joseph M. Juran broached the question of how much quality was sufficient in *Quality Control Handbook*, a text that many laud as the “quality professional’s bible” (Garvin, 1994:35). Central to the work is the notion of avoidable and unavoidable quality costs, where the former are costs associated with defects and product failures and the latter are the costs associated with prevention such as inspection, sampling, sorting, and other such quality control initiatives. Garvin (1994:35) explains that Juran looked upon failure costs as “gold in the mine” because of the potential for error reduction by making investments in quality improvement. In fact, at the time of the book’s initial release, Juran (1951:37) estimated that preventable quality losses were in the neighborhood of \$500 to \$1000 per productive worker year. Garvin suggests that the major contribution of Juran’s work was that managers now had a benchmark to help guide investments in quality improvement.

Like Deming, Juran achieved fame and prominence through his work with Japan during the postwar reconstruction period following World War II. According to one author, his influence on the quality movement is second only to Deming (Costin, 1994:11).

Juran made his first trip to Japan in 1954 to address the Union of Japanese Scientists and Engineers (JUSE) (Besterfield et al., 1999; Ross, 1995). His talks emphasized the responsibility of management to set goals and achieve quality via planning, organizing, and control activities (Besterfield et al., 1999; Juran, 1951; Ross, 1995). His crowning achievement is a framework for conceptualizing quality. Known as the “quality trilogy,” Juran (1995) submits that QM consists of three quality-related processes: (1) quality planning, (2) quality control, and (3) quality improvement.<sup>31</sup>

#### *Total Quality Control/Armand Feigenbaum*

Another quality guru that achieved visibility and acclaim through his work with the Japanese was Armand Feigenbaum (Ross, 1995:6). In 1956, Feigenbaum proposed the notion of “total quality control” (TQC) and argued “quality is everybody’s job” (Garvin, 1994):

The underlying principle of this total quality view ... is that, to provide genuine effectiveness, control must start with the design of the product and end only when the product has been placed in the hands of a customer who remains satisfied ... the first principle is to recognize that quality is everybody’s job (Feigenbaum, 1956:94, 98).

Ross (1995:6) submits that Feigenbaum’s total quality control approach is a close forerunner of today’s TQM.

Feigenbaum preached that top management was ultimately responsible for the success of the system (Garvin, 1994:36; Mrozowski, 2001; Ross, 1995). Redefined as a management responsibility, quality control grew from its original narrow scope as a technical activity to a function that required a broad a mix of administrative skills. On top

of production control, total quality control also included new product development, vendor selection, and customer service (Garvin, 1994). Thus, statistical methods were necessary but alone not sufficient to guarantee quality. With the operative word being *total*, Feigenbaum examined the whole product value cycle and applied systems engineering methods to bring about improvement (Costin, 1994:9; Harrington, 1995). In other words, he advocated a systemic approach to integrate efforts to develop, maintain, and improve quality, rather than inspect and control for quality “after the fact” (Ross, 1995).

#### *Total Quality Control/Kaoru Ishikawa*

Building on the prior work of Deming, Juran, and Feigenbaum, Kaoru Ishikawa emerged as one of Japan’s prominent quality leaders in the late 1950s. Ishikawa’s teachings emphasized total quality control as a conduit for management and production employees to work in concert to jointly solve problems (Schultz, 1994). Ishikawa promoted the idea that each worker must accept responsibility for quality. And, the best way to enhance said quality is through the empowerment and enlightenment of workers (Harrington and Harrington, 1995:22).

A strong advocate of education, Ishikawa (1990) launched the concept of the quality circle<sup>32</sup> in Japan as a way to promote company-wide improvement through individual and group learning. He also pioneered the cause-and-effect diagram, a tool still popular today to capture ideas on the potential sources of problems (Schultz, 1994:224).

In his groundbreaking book, *Introduction to Quality Control*, Ishikawa (1990:55) spoke of managing five Ms—men, materials, machines, methods, and measurements—when implementing TQC. He argued that the goal of total quality control encompassed building quality into each of these components as a preventative to defects. Hence, his approach to quality was a proactive one that anticipated problems and prevented them before they occurred.

*Reliability Engineering/Department of Defense (DOD)*

Also out of the 1950s emerged a close cousin of total quality control known as “reliability engineering” (RE). The necessity for reliability engineering became especially evident during the Korean War due to the failure of complex electronics, missiles, and aerospace systems to perform with any great consistency (Bounds et al., 1994; Dodson and Nolan, 1999; Garvin, 1994). Dodson and Nolan explain:

The availability of Naval electronic equipment was approximately 70%; the availability of Army equipment was less than 40%. Over 60% of airborne equipment shipped to the Far East arrived damaged, the mean time to fail for bomber electronics was less than 20 hours, and the cost of repair and maintenance was over 10 times the original purchase price (Dodson and Nolan, 1999:1).

At the heart of the problem was the ever-increasing costs and burgeoning complexity of technology that typified the postwar growth of the aeronautics and electronics industries (Dodson and Nolan, 1991; Garvin, 1994) following World War II. With military readiness clearly at stake, the Department of Defense formed the Advisory Group on the Reliability of Electronic Equipment (AGREE) in 1950; their charge was to study the plunging reliability of military components and systems. By 1951, the Advisory

Group released a major report that eventually set forth the requirements for a formal reliability program (AGREE, 1951; Garvin, 1994). Since the initial inception of AGREE and the distribution of its formative findings, DOD has continued to be a leader in reliability engineering (Dodson and Nolan, 1991). A large amount of RE theory and documentation has emerged directly from DOD and as a result of research sponsored by the U.S. military (Ibid).

Not unlike total quality control, reliability engineering purported to prevent defects from occurring in the first place (Garvin, 1994:38). The discipline's goals were to improve reliability and reduce failure rates over time. This approach, like that of its predecessors emphasized engineering and attention to quality throughout the design process. As such, engineers devised mathematical models to predict equipment performance over time and under a variety of different operating conditions (Bounds et al., 1994:58). In addition to prediction, they also employed a variety of techniques<sup>33</sup> that attempted to analyze and reduce failure rates but with only a modicum of success (Ibid).

Interestingly, it was not until the early sixties that efforts to control quality began to address the "human relations side of the equation" (Garvin, 1994:38). The zero defects approach, developed in 1961 at the Martin Company (later called Martin-Marietta), focused on management expectations and worker incentives to lower defect rates (Bounds et al., 1994; Crosby, 1992; Garvin, 1994; Goetsch. and Davis, 1997).

### *Zero Defects/Philip Crosby*

The way the story goes, Martin Company, who built Pershing missiles for the U.S. Army, customarily used massive inspection to achieve a generally good level of quality, based on a system of quality management called MIL-Q-9858 (Crosby, 1992). According to Crosby (1992), MIL-Q-9858 defined the requirements for a quality assurance system based on a threshold of allowable error. The “zero defects” approach that came out of Martin Company in the early sixties was a major divergence from the prevailing assumption of that time that some non-zero level of defects was an acceptable quality level (AQL) (Crosby, 1992:xvi-xvii).

Rather than rely on massive inspection to stay within a predetermined AQL, Martin established an ambitious schedule to deliver a defect-free missile that was fully operational ten days after delivery as opposed to the usual ninety days it took for implementation. With the goal to “promote a constant, conscious desire to do a job (any job) right the first time” (Halpin, 1966:5), the Martin program focused on workers’ motivation and awareness instead of quotas (Ross, 1995). As it turned out, the missile arrived on time within cost and was fully operational in less than twenty-four hours (Bounds et al., 1994:58).

Officials at Martin surmised that by setting an acceptable threshold for error, an unintended consequence of quality assurance by AQLs was in effect to put a ceiling on subsequent quality (Bounds et al., 1994:59). In other words, the lack of perfection in deliverables was a self-fulfilling prophecy owing to an expectation of error. The success of the zero defects project seemed to confirm this hypothesis and led Martins’ managers

to conclude that production of a defect-free missile was the result of a change in their own ways of thinking about quality. James F. Halpin, the Director of Quality at Martin Company at this time, explains:

The reason behind the lack of perfection was simply that perfection had not been expected. The one time management demanded perfection, it happened! Like everyone else in the world, management had accepted as a fact the theory that mistakes are inevitable. By its very actions—setting acceptable quality levels and trying to keep rework costs down to a preset level—management was saying: “We expect a few defects now and then, just as long as they are kept within reasonable limits.” Actually, the very emphasis on extensive inspection led many workers to reason: “If I miss it, the inspector will catch it. That’s what he’s paid for” (Halpin, 1966:15).

Accordingly, the chief contribution of the zero defects program was to call into question popular convention that variations are inevitable. By articulating a philosophy of zero defects and by showing how to nurture a quality-minded workforce through training, goal setting, and feedback, Martin Company posed a formidable challenge to 30 years of QC history and accepted practice (Garvin, 1994). In the words of Philip Crosby, who worked at Martin in the 1960s (Bounds et al., 1994; Garvin, 1994):

When I created the concept of zero defects in 1961 it was for the purpose of getting rid of Acceptable Quality Levels (AQLs). My thought was that we should do exactly as we agreed to do rather than spending a lot of time and money keeping track of the differences. This concept was met with derision by the opinion leaders of the quality-control field, to the extent that the ASQC (American Society for Quality Control) board actually passed a resolution against it. None of this bothered me, and I kept on preaching. It wasn’t until the Japanese invasion of the early 1970s, however, that the American public awoke and began demanding to receive what they had ordered. Working harder at the old-fashioned concepts would not produce this, so the pendulum began to swing toward quality management. What made the difference was management’s new policy of zero defects rather than AQLs. Suddenly, “good enough” was no longer good enough. Through this change companies regained market share and cut their costs dramatically (Crosby, 1992:xvi-xvii).

The tension between AQLs and zero defects is a “controversy” that continues today (Bounds et al., 1994). The notion that perfect quality is both technically viable and economically feasible has revived many of the old arguments on how much quality is good enough (Garvin, 1994:39).

Philip B. Crosby has probably achieved the greatest commercial success (Ross, 1995) by promoting the idea that quality means never having to do it over. According to Crosby (1979), “quality is free” because the costs of prevention are small next to the costs of detection, correction, and failure. His “absolutes” of quality are:

- Quality is defined as conformance to standards, not “goodness.”
- The system for achieving quality is prevention, not appraisal.
- The performance standard is zero defects, not “that’s close enough.”
- The measurement of quality is the price of non-conformance, not indexes (Ross, 1995:6).

Using the concepts of the quality management pioneers, the Japanese set the standards of quality for the rest of the world to follow (Besterfield et al., 1999:7). By the late 1970s and early 1980s, a quality renaissance began to occur in U.S. products and services. And, by the middle of the 1980s the concepts of TQM were being publicized (Ibid).

The quality assurance era significantly expanded quality control efforts in organizations and inspired managers to pursue perfection (Bounds et al., 1994). However, the underlying mindset was still one of a defensive nature—to wit, that quality was something that could hurt a company if ignored or neglected. It was not until the late 1970s and 1980s that managers started to recognize the strategic importance of quality.



This revelation along with the quick and growing pace of global competition led to the emergence of a total approach to quality management. Hence, quality evolved from an isolated technical concern of a few to an overarching philosophy for all organizational activity. As such, QM became everyone's concern with each person in the organization sharing in the development of a learning–improvement ethos—a way of doing things where excellence infuses all processes, finds expression through teamwork, and targets fulfilling the needs of the customer (Kehoe, 1996:2).

### *Back to the Future: Current Status of Quality Management*

Since the dawn of general consciousness in the U.S.<sup>34</sup>, quality management has come to be “a major paradigm of participatory decision making” –a systemic approach for the constant improvement of processes to produce and deliver goods and services (Costin, 1994:xvii). Born from the union of Eastern and Western ideas (Milakovich, 1995), QM extracts “precision and know-how” from both sides of the globe (Capezio and Morehouse, 1993:8; Costin, 1994).<sup>35</sup>

From its initial introduction in the United States to the present time, the advance of quality management has exhibited four distinct stages of evolution:

First there was awareness and a few early experimenters. This was followed by a blind following stage characterized by frenzied activity. Virtually all large organizations made some efforts to launch a total quality effort. Since many of these implementations were ill-conceived, there were failures and disappointments. This produced a third stage of negative skepticism, which may now be ending. This is likely to be followed by a maturity stage in which the momentum continues and adoption activities are well informed (Tuttle, 1994:21).

Today, at its current level of maturity—early stage four per the evolutionary path described by Tuttle (1994)—QM is a ubiquitous strategy in organizations the world over, one that continues to grow and go forward as a means to promote excellence, delight customers, cut costs, and enhance performance. In particular, quality has grown up to be an integrated, proactive line of attack, based on a planned, deliberate, intelligent strategy of continuous learning and constant improvement. Hence, a primary criterion for organizational excellence is to build the kind of actionable knowledge (Argyris, 1992) that comes from a holistic view of the organization as a total system (Ackoff, 1998). Accordingly, total is the operative word; present-day QM practice purports to consider the organization as a system of systems, where quality development reflects the values of the whole as demonstrated by widespread involvement to find the root causes (Harrison and Shirom, 1999) of system flaws that can cause dissatisfaction among both internal and external customers (Milakovich, 1995:6).

Yet all told the fruits of quality initiatives have been mixed; not all organizations that have implemented QM have profited from it (Becker, 1993; Brigham, 1993; Vazzana et al., 2000). Actual results in some instances have fallen short of those anticipated. But, as Zairi (1994) points out, QM is not easy and results do not occur overnight. On the plus side, there is ample evidence that commitment to QM does pay off (GAO-PEMD, 1990; Zairi, 1994:xv). The literature is rife with books, articles, speeches, and conference sessions that tout the benefits of QM practices and the potential gains that these actions yield to all organizations that successfully adopt them (Douglas and Judge, 2001; Seymour, 1994a, 1994b; Sitkin et al., 1994). Some of the common dividends reported by QM's proponents include greater responsiveness to customers, increased esprit de corps,

lowered costs, and the delivery of first-rate goods and services. In higher education, many institutions have applied quality principles and have noted similar results. For example, a number of community colleges report scores of positive effects, including a reduction in costs, increased employee and student involvement, and an enhanced capacity to serve up high-quality services and learning experiences (Miller, 1994; O'Banion, 1997; Thor, 1994). Likewise, Porter (1994) gives an account of the good results realized within many levels of the Air Force Academy; outcomes that range from individual growth to increased interdepartmental communication and cooperation.

At the same time, however, a considerable number of organizations have tried to harvest continuous system improvements but to no avail (Douglas and Judge, 2001), as evidenced by a bumper crop of literary fare that recounts instances of disappointment and failure (Ackoff, 1998). For example, Ackoff (1998:41) submits that almost two-thirds of all quality management ventures have fallen short of planned goals. Similarly, Koch and Fisher (1998:659) report that few institutions of higher education have actually implemented QM in any meaningful way and the gains realized pale next to the time and effort required to implement programs (Vazzana et al., 2000). Other skeptics have denounced QM as a passing fad, as old wine in new bottles, and/or as totally unsuited for use outside private industry (Seymour, 1993, 1994a, 1994b; Sorensen, 2002; Thor, 1994).

According to one OD pundit, because dogmatic thinking often attends the quest for quality, what sounds great in theory falls short in practice; QM becomes little more than “a search for righteousness analogous to that associated with institutional religion” (Byrd, 2000:149).<sup>36</sup> Alongside quality doctrinaire and piety, other common causes of

failure include lumbering bureaucracies, slow deployment, absentee leadership, and the lack of attention to training (Becker, 1993; Mathew and Katel, 1992; O'Banion, 1997). Further exacerbating each of these issues is the observation that the related research does not prescribe corrective action to the degree "that it could and should" (Hackman and Wageman, 1995:339). In addition, QM has assumed numerous aliases over the years, which is a potential source of confusion. Total quality management, total quality leadership, continuous quality improvement, total quality service, and total quality education (Brocka and Brocka, 1992; Milakovich, 1995; Mrozowski, 2001; Porter, 1994; Vazzana et al., 2000) are but some of the name variations that people have used to denote the package of tools, techniques, and concepts associated with quality development (Kehoe, 1996). Above and beyond the numerous referents for QM, quality itself defies simple definition—as discussed earlier it is a relative phenomenon that varies in different settings and circumstances (Davies, 1991). This ambiguity, together with QM's predilection for metrics, sundry charts, and statistical methods, can make knowing "what counts as quality" (Gutmann, 1991) and subsequently how to count it no easy matters.

Nevertheless, the field is maturing (Tuttle, 1994) and its early struggle for legitimacy and intellectual recognition (Dean and Bowen, 1994) triumphant, with more and more serious scholarly inquiry to support its dictates and practices (Jack et al., 2001). For example, recent studies suggest that quality management is an all or nothing proposition—there is strong support for a direct relationship between the degree to which an organization adopts QM practices and the competitive advantage it achieves therefrom (Douglas and Judge, 2001). This means an organization must fully adapt and put into effect all of QM's key ideas (Douglas and Judge, 2001; Hackman and Wageman, 1995)

as well as have in place an appropriate internal structure to support them (Carmen et al., 1996; Waldman and Gopalakrishnan, 1996). Kehoe (1996:ix) adds that while there is no single blueprint for QM implementation, a learning organization is a prerequisite for success since quality management and the learning organization mutually reinforce one another through the close kinship of their respective core values (O'Banion, 1997; Senge, 1994).

In culling the current literature on the subject, Douglas and Judge (2001:159) identified seven such essential elements that must be present together for the QM initiative to do well. This includes (1) involvement by top management; (2) adoption of a quality philosophy; (3) training in principles, tools and methods; (4) a customer focus; (5) continuous improvement of processes; (6) management by fact; and (7) the correct application of QM work aids and techniques.

In another recent study, Jack and associates (2001) purported to assess the momentum and substantive content of QM research from 1981 to 1998. Based on their examination of doctoral dissertation research for this period, the investigators observed that over time, work in the field has evolved to be more comprehensive and empirically robust. In particular, the study team noted "an encouraging trend toward more rigorous methodologies and the increased use of theories from other disciplines" (Jack et al., 2001:363). This finding, moreover, is generally commensurate with the research reported in refereed journals and trade publications. Accordingly, while early work has tended to examine the effects of quality on competitiveness (e.g., Garvin, 1986), later work has

begun to address the need to develop a theoretical foundation for QM practices (Anderson et al., 1994; Dean and Bowen, 1994; Hackman and Wageman, 1995).

Notably, a number of researchers have studied the relationship between organization structure and QM effectiveness and found that there is a need to balance the tension between control and learning (Grant, 1996; Hackman and Wageman, 1995; Shea and Howell, 1998; Sitkin et al., 1994; Waldman and Gopalakrishnan, 1996). Building on these findings, recent evidence from the hospital industry has shown that a learning culture augments the relationship between continuous improvement and performance (Carmen et al., 1996; Shortell et al., 1995). In a similar way, Mrozowski (2001) found support for a direct relationship between quality management and a learning culture in his study of county behavioral health organizations.

In the sphere of higher education, a number of studies have looked at QM adoption rates and patterns of use (Bailey and Bennett, 1996; Coate, 1999; Costin, 1999a, 1999b; Ensby and Mahmoodi, 1991; Evans, 1996; Marchese, 1999; Mehrez et al., 1997; Mergen, Grant, and Widrick, 2000; Seymour, 1993, 1994a, 1994b; Vazzana et al., 2000; Weinstein et al., 1998). Vazzana et al (2000) found, for example, that many institutions are employing QM practices to improve both academic administration and teaching/learning processes. Still, only a handful of institutions—about 20 to 30 percent—have actually thrived following QM implementation (Becker, 1993; Brigham, 1993). Just as researchers have found in government and business settings (e.g., Douglas and Judge, 2001), key QM practices must be implemented together for the best result. In general, the lack of a comprehensive framework for adoption precludes the possibility of

meaningful change and widespread improvement (Koch and Fisher, 1998; Mergen et al., 2000). So, while many administrators *believe* that QM has made significant improvements to organizational effectiveness (Elmuti et al., 1996), in actuality studies suggest that most efforts are too narrow in scope (Byrne, 1998; Mergen et al., 2000; Natarajan et al., 1999; Wallace, 1999) to realize the full benefits possible. Cherry picking of QM practices and non-systemic thinking lie at the core of countless failed initiatives and mediocre outcomes (Ackoff, 1998; Zairi, 1994).

### *Baldrige Quality Framework in a Nutshell*

Despite a plethora of reported failures (Ackoff, 1998; Douglas and Judge, 2001; Merrill, 1997), the use of QM has been on an upward swing in U.S. organizations since the 1980s (Lawler et al., 1995:46) as part of a core strategy to improve viability, performance, and profitability (Soltani, 2005). Alongside the QM promise to deliver first-rate goods and services, much of the field's development is attributable to the Baldrige National Quality Award (BNQA) framework and the notoriety that its recipients have received (Hart and Bogan, 1992; Jack et al., 2001). Named for the former Secretary of Commerce, the award was established by an act of Congress in 1987 to promote quality awareness; recognize quality achievements; publicize successful quality strategies; and stimulate and strengthen the economy through quality goods and services (Capezio and Morehouse, 1993:262; Sorensen, 2002). Since its inception, the Baldrige Award has emerged as this country's symbol of quality achievement (Hart and Bogan, 1992).

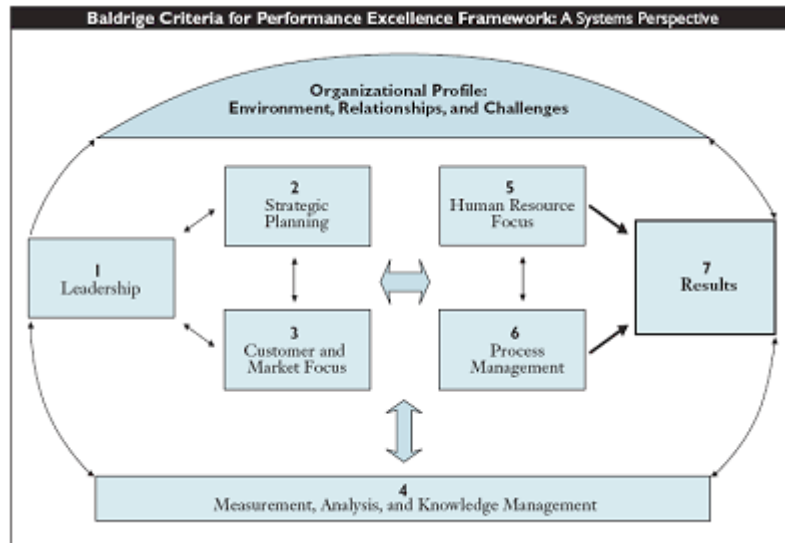
In short, the Baldrige National Quality framework is an idealized design for performance excellence (DeBaylo, 1999) based on sociotechnical systems thinking (Hart

and Bogan, 1992) and a learning ethos. At the nucleus of the framework is a set of interrelated core values and concepts; the beliefs and behaviors that typify a high-performance organization (NIST, 2006) as delineated in Table 6-1 below.

**Table 6-1**  
The Core Values and Concepts of the Baldrige Quality Framework

<ul style="list-style-type: none"> <li>• Visionary leadership</li> <li>• Customer-driven excellence</li> <li>• Organizational and personal learning</li> <li>• Valuing employees and partners</li> <li>• Agility</li> <li>• Focus on the Future</li> </ul>	<ul style="list-style-type: none"> <li>• Managing for innovation</li> <li>• Management by fact</li> <li>• Social responsibility</li> <li>• Focus on results and creating value</li> <li>• Systems perspective (NIST, 2006:1)</li> </ul>
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The integrating mechanism for this body of ideas is 7 organizational subsystems, which together define the criteria for performance excellence, shown here in Figure 6-2.



Source: *Baldrige National Quality Program: 2006 Business Criteria for Performance Excellence*, Gaithersburg: National Institute of Standards and Technology, US Department of Commerce

Figure 6-2



The Baldrige model makes no effort to define quality; it delineates instead total quality management by identifying organizational areas of competence that equate to success and continuous improvement (NIST, 2006). Because the criteria are not prescriptive, the path a given organization takes to develop its competence in these areas is left to the individual organization to decide (Hart and Bogan, 1992:4; NIST, 2006).

Bergquist and Ramsing (1999) report a shared perception of “overwhelming improvement” by those companies who have aggressively pursued the Baldrige award (Kanji et al., 1999). Moreover, the U.S. Department of Commerce relates that Baldrige award winners had triple the increase in shareholder’s value compared with the Standard and Poor’s 500 (Tai and Przasnyski, 1999).

*Baldrige, Quality Management and the Learning Organization*

The Baldrige framework is an enabling shell that weds excellence and learning together. The marriage, moreover, is one that works due to the observable kinship between the philosophy and practices of quality management and those that epitomize the learning organization (Dervitsiotis, 1998; Ferguson-Amores, et al, 2005; Garvin, 1993; Senge, 1992; 1994; 1999). Chief among the similarities of the frameworks is their shared emphasis on systems thinking, empowerment, teamwork, a supportive culture, and widespread learning (Dervitsiotis, 1998; Senge, 1999; Soltani, 2005). Where QM and LO differ lies in their functional orientation to change, such that the former is “predominantly an adaptive response” and the later is more “proactive” and seeks second and third order learning (Argyris and Schön, 1978, 1996; Bateson, 1972; Dervitsiotis, 1998; Ferguson-Amores, et al., 2005:151; Senge, 1990). Recognizing the general correspondence

between QM and LO, a number of authors have studied more fully their likenesses and differences in order to understand better how each approach may contribute to an organization's success and long-term future in the face of unremitting change and uncertainty.

While a number of authors frame QM as the superordinate idea (i.e., QM includes the hyponym LO) and/or conceptual forerunner to the learning organization (e.g., Garvin, 1993; Senge, 1992; 1994; 1999; Hackman and Wageman, 1995; Wang, 2004), others suggest that the two approaches are mutually dependent (Terziovski et al, 2000) or complementary (Dervitsiotis, 1998; Ferguson-Amores, et al., 2005). For example, a close look at the theoretical footing of the quality movement reveals, "it has always been about learning," as the passage that follows explains:

The roots of the quality movement lie in assumptions about people, organizations, and management that have one unifying theme: to make continual learning a way of organizational life, especially improving the performance of the organization as a total system (Senge, 1999:34-35).

Similarly, Hackman and Wageman (1995:34-38) note, "TQM is pro-learning, with a vengeance," which they submit occurs in three ways: (1) learning from one another; (2) discovering ways to improve work processes and performance; and (3) learning about collective goals. Likewise, Garvin (1993; 1994) observes a philosophical commensurability between TQM and the learning organization; notably, the former is a catalyst for the latter because of the learningful techniques and practices that grow out of TQM's commitment to improvement, such as the plan-do-act-check cycle, wherein learning is a natural by-product. Along these same lines, Love et al (2000) submit that

TQM is both an enabler for learning in organizations as well as a useful framework to promote and manage change. As they explain, this occurs by

Develop[ing] a fully shared, even synergistic understanding of information, experiences and goals of all individuals within the organization so that change can be consciously and proactively managed (Love et al, 2000:328).

In a comparative study of five Australian companies, Terziovski et al (2000) found empirical support for the proposition that TQM and LO are mutually dependent. A major finding of their research confirmed that TQM's principles and ideas underpin the evolution of a learning organization, which, they propose, is the reward for continuous improvement.

Consistent with these findings, Pool (2000) found that an organization which implements TQM principles has an appreciably higher level of organizational learning, compared to those organizations not exposed to TQM principles. Likewise, he also found a positive and significant relationship between LO and the motivational level of its business executives.

Barrow (1993), Kim (1992), and Sohal and Morrison (1995) have likewise addressed the complementarity of TQM and learning organizations, with fairly congruous findings. They point out that both initiatives call for teamwork, a systemic approach, adapting to one's environment, and an ability to learn as an organization.

More recently, Ferguson-Amores et al (2005) conducted a comparative analysis of QM and LO based on the systems contingency model of organizations proposed by Kast and Rosenzweig (1974; 1985). Using the Kast and Rosenzweig model as an

organizing framework, their study looked at the two approaches in terms of the cultural, technical, structural, psychosocial, and managerial subsystems, which are present in all organizations. Along these various dimensions, the researchers found that despite some functional differences, TQM and LO are mutually supporting strategies for organizational renewal.

For the purpose of summarization, Table 6-2 below presents a comparative analysis of TQM and the learning organization by subsystem, which is a condensed and adapted depiction of the work by Ferguson-Amores et al (2005).

**Table 6-2**

A Comparison of TQM and LO by Subsystem: Functional Differences and Similarities

<b>SUBSYSTEMS</b>	<b>BASIC VARIABLE</b>	<b>TQM</b>	<b>LO</b>
Managerial	Planning Perspective	Holistic; medium and long-term view	Holistic; long-term view
	Decisionmaking	Rational approaches	Dialogue/discussion
	Primary Objective	Efficiency	Effectiveness
	Change Focus	Incremental	Incremental, radical
Cultural	Origin of shared vision	Upper management	Leaders (any level)
	Content of shared vision	Quality, excellence, improvement	Individual responsibility, systemwide learning
Psychosocial	Learning style	Adaptive, single-loop	Adaptive, generative
	Knowledge transfer	Exploitation	Exploitation, exploration
	Learning goals	Human as resource development	Human development; shared understanding
	Mental models	Implicit	Explicit
Structural	Type of structure	Organic, teams	Organic, teams
	Linking mechanisms	Expert coordination, quality ethos	Shared vision, mutual trust, personal mastery
	Teams	Quality circles	Communities of practice
Technical	Critical techniques	Quantitative, analytical, systems thinking	Qualitative, storytelling, dialectic, metaphors, systems thinking
	Analysis and diagnosis	Measurement, self-assessment, benchmarking, emphasis on retrospective aspects	Images, metaphors, visions, emphasis on prospective aspects

Source: An abridged adaptation of the analysis by Ferguson-Amores et al (2005:152-153)

A striking feature of Table 6-2 is the yin and yang-like pull between TQM and LO; and especially, how the pull between each of these organizational development approaches mirrors the harmonizing tension between positivist and interpretivist concerns. Despite the brevity and incompleteness of Table 6-2, we get a clear sense of the affinity between TQM and LO that a number of authors (e.g., Barrow, 1993; Kim, 1992; Sohal and Morrison, 1995; Terziovski et al, 2000) have observed through empirical study. And, just as they duly conclude, this brief presentation likewise demonstrates that TQM and LO are not mutually exclusive frameworks; rather, there is a certain complementarity between them that calls attention both to the symbiosis they share as well as to the efficacy of having multiple paths for learning and improvement, particularly in the context of a dynamic environment.

### *Limitations*

TQM failures are legendary, with as many as seven out of ten programs efforts not succeeding (Merrill, 1997:1). Among its widely cited problems are issues such as poorly defined or non-existent goals, poor planning, fear of change, no management commitment, improper training, employee resistance, and the lack of an integrated performance measurement system (Dale and Lightburn, 1992; Gudim and Meer, 1995; IPM, 1993; Lakhe and Mohanty, 1994; Soltani et al., 2003; Soltani, 2005:465; Wilkinson et al., 1994, 1998). All things considered, in the absence of “quality basics” –namely, the organizational values, beliefs, structures, and practices needed to sustain it (Huddleston, 1995) –TQM is destined to fail. Likewise, efforts to implement the learning organization fail for similar reasons. From the standpoint of practice, the most challenging aspect of

either doing TQM or implementing the learning organization is not so much that the underlying theory is flawed or unrealistic; rather it concerns the total systems perspective that is necessary for such change (Ackoff, 1998; Cole, 1995; Huddleston, 1995; Senge, 1990; Zairi, 1994), without which it is difficult to recognize and address the barriers that can preclude learning.

As we know from the earlier chapter on the Systems Thread, the LO framework by associative default is heir to the inherent difficulties of a systems perspective. In terms of LO implementation, we identified three such problems: 1) systems thinking is hard to do because of our machine age proclivities for analysis; 2) systems thinking employs a dense vocabulary and tool set that is difficult to penetrate; and 3) we live in a complex, nonlinear world characterized by intricate systems that are neither tractable nor predictable. Likewise, quality management as a progeny of a systems approach also suffers from the same afflictions due to these cognitive shortcomings, to which Ziegenfuss and Bentley (2000) add the following concerns:

1. Due to incomplete knowledge of the organizational subsystems and their “black box like” disposition, there is characteristically little work on construct validity.
2. There is often limited focus on interactive effects between systems.
3. Most models are static in orientation, which can undermine our knowledge that social systems are dynamic.
4. The intuitive clarity of the systems model may on the one hand help to demonstrate complexity and on the other hand impair our recognition of how complex organizations really are.
5. The separation of the systems necessary for presentation is an artificial construction that obscures the holistic nature of organizations.

6. Subsystem variables are not yet specific and quantifiable, i.e., the metrics as yet not fully developed cannot take us beyond qualitative judgment (Ziegenfuss and Bentley, 2000:456-457).

But, despite these potential pitfalls, a systems perspective is useful (Senge, 1990; Yeo, 2005; Ziegenfuss and Bentley, 2000) and much more likely than a non-systemic approach to draw attention to and promote learning about the interdependencies and interactions between organizations, their subparts, and their environments.

### *Summary*

In this chapter, we explored the linkages between quality, quality management, and the components of a quality management approach. A brief retrospective of the past helped to place the current state of knowledge and practice in context, as we traced the advance of the quality management paradigm. Building on this discussion, we examined the symbiotic relationship between QM and LO, and how this complementarity contributes to a systemwide mindset for excellence and a shared unity of purpose to learn.

The emergence of quality as a formal management function is a fairly recent development. Popular awareness of quality was born in the U.S. in the late 1970s and early 1980s as many organizations realized that quality development was key to Japan's success and a necessary element to be competitive and win on the world playing field. According to many pundits, successful organizations of the future will be those that commit to quality and continuous improvement to meet world class standards of excellence (Kanter, 1995).

The advent of the existing competitive market has brought with it a variety of new game rules. First and foremost, quality is now of the essence and no longer a matter a choice (Schuler and Harris, 1992; Mische, 2001). Second, the credo of customer satisfaction has become the repeated mantra of organizations big and small across all sectors and industries. Consumers demand quality; excellent organizations are those that integrate customer feedback into strategic planning and the delivery of all goods and services (Costin, 1994). Third, hypercompetition is a reality throughout most of the industrialized world (Hanssen-Bauer and Snow, 1996:413). Competitive advantage in this setting will belong to those organizations with the ability to improve, innovate, and consistently meet high-grade standards for quality goods and services (Kanter, 1995). Fourth, survival is a function of an organization's ability to learn (Marquardt, 1996; Purser and Pasmore, 1992). A prerequisite for quality to grow and prosper is the existence of an enabling system suchlike a learning organization (Kehoe, 1996; Rowley et al., 1998). Fifth, real transformation requires a holistic line of attack that is at once both broad and deep—that is, a methodology that simultaneously targets all system components (broad) and their respective underlying patterns of behavior (deep) (Old, 1995). Since every organization is a product of the way in which its members think and work together (Senge et al., 2000:19; Weick, 1969), a quality mindset must become part of the “deep structure” (Old, 1995) of the organization for therein resides the ultimate source of values and action (Schein, 1997) to change the organization in any meaningful way.

A unifying theme of this dissertation is that an integrated systems approach that balances technical requirements and social needs offers the best way to bring about



change, promote learning, and improve quality in organizations. In other words, the technical subparts and social subparts of the whole must be congruous to rally “the motivation, knowledge, and behavior of the individuals within those systems [and] on whose actions success of any intervention ultimately depends” (Chapman and Carrier, 1990:3).

Effecting quality improvement in organizations is neither simple (Zairi, 1994) nor undemanding; rather, it is an emergent learning process that materializes over time when the entire organization works together to address quality and service levels (Sirkin and Stalk, 1990). As such, successful QM requires a long-term perspective, holistic thinking, strategic insight, responsiveness to external cues, a quality ethos and the readiness to challenge longstanding or dominant assumptions. Within this reinforcing framework, when process is the target for continuous improvement and fact is the driving force for action (Evans and Lindsay, 1999; NIST, 2001b; Zairi, 1994), a total quality vision embodies for countless organizations an elixir for economic health and well-being, and, QM, a promising and capable means to counter cases of bloated bureaucracy, change paralysis, dysfunctional learning, and dubious quality (O’Banion, 1997; Seymour, 1994b:9; Schuler and Harris, 1992; Senge, 1994) in the face of chronic environmental discontinuity and paradox (Laszlo, 1994; Malhotra, 1997; Pascale, 1990; West, 1994).

The transformation of knowledge into customer value is the ultimate quality challenge facing every organization in the 21<sup>st</sup> century (Henderson and Hacker, 2002:9). Moreover, this test is one which translates into three basic requirements: 1) To deliver ever-improving products and service to constituents; 2) to heighten overall organizational

effectiveness and innovative capabilities; and 3) to promote organizational and personal development (NIST, 2001b:1). Underlying these requirements, the formation of a holistic learning system is essential for collective growth and strategic renewal in the midst of widely divergent needs (Ferguson-Amores et al., 2005; Joyce et al., 1993; Mische, 2001; Palloff and Pratt, 1999).

As a structured embodiment for continuous improvement, the Baldrige quality model embraces the idea that high-performance and long-term survival is a function of the organization's capacity to learn (Purser and Pasmore, 1992). And, inasmuch as Baldrige is a manifestation of STS philosophy and design, it describes both an underlying configuration for a learning organization as well as propounds an outline for quality management.

In the chapter that follows this one, we reflect on the importance of structure as it relates to learning and outcomes (Finger and Brand, 1999; Gifford and Stalebrink, 2002; James, 2003; Moingeon and Edmondson, 1996; Sessa and London, 2006; Smith, 2001). Given the inherent inflexibility of hierarchy, the Structure Thread considers the feasibility of alternative forms of organization as a means to the support goals and values of the learning organization ideal.

## NOTES

<sup>1</sup> This “map” serves two purposes. (1) It reminds the reader where we are in our approach to trace the historic roots of the learning organization. (2) It provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

<sup>2</sup> In the early 1980s NBC aired a documentary on television that posed the question, “If Japan Can, Why Can’t We?” (Dobyns and Crawford-Mason, 1991; Kinlaw, 1992; O’Banion, 1997; Tenner and DeToro, 1992; Walton, 1990) That broadcast, which brought quality into the spotlight and primetime living rooms of the American public, stirred us into action. The American quality movement exploded on the scene. Organizations everywhere jumped on the TQM bandwagon, fueled by an urgent need to tackle the new quality imperative and its attendant forces of change (i.e., global markets, intense competition, more demanding customers, the fast pace of technological developments, et cetera).

As Western enterprise clamored to know the secrets behind Japanese success, a vast literature on total quality management (TQM) emerged in the form of guides, collected works, how-to books, scholarly treatises, testimonials, and other such published matter (Kinlaw, 1992). Likewise, conferences and symposia on quality topics grew rapidly, too. With the creation of the Malcolm Baldrige National Quality Award (MBNQA) in 1987, TQM coalesced into a major movement in the US (Easton, 1995:11; Hart and Bogan, 1992; Jack et al., 2001; NIST, 2001b). Consequently, corporate quality programs mushroomed at a stunning rate and quality improvement became the organizational mantra for strategic renewal—if Japan could do it, so could we. According to one observer on the rapid increase and pervasiveness of TQM,

I know of no large organization in the United States that has not launched ... a total quality management program. I know of very few employees who are not aware of TQM (Kinlaw, 1992:1).

For a sense of its current incidence and use in the scholarly and popular press, see also note 5.

<sup>3</sup> Notwithstanding the vigorous growth of the TQM movement, speedy results were not forthcoming (Cole, 1995) and numerous programs flopped (Ackoff, 1998; Zairi, 1994) as eager organizations in search of the “quick fix” tried to add quality capriciously on top of extant business practices (Huddleston, 1995). Alas, non-systemic thinking (Ackoff, 1998) and a shallow understanding of TQM canon (Cole, 1995) –not to mention poor planning, weak commitment, and a lack of readiness (Zairi, 1994) –toppled many quality efforts. In the absence of “quality basics” –namely, the organizational values, beliefs, and practices needed to sustain quality (Huddleston, 1995) –TQM failed to deliver on its promises.

What many organizations came to discover is that total quality management is a lot of work: it is neither simple nor instantaneous, nor is it a “plug-and-play” strategy for

performance enhancement. There are no pat formulas for implementation (Cole, 1995). Rather, its principles require ongoing translation into structures and processes suited to the particular situation at hand (Mohrman and Cummings, 1989). Seeing as there are always multiple means to any given end—what systems theorists call equifinality (Katz and Kahn, 1966; Sashkin and Kiser, 1991; Ziegenfuss, 1993)—it follows that there are also many different ways to do TQM. Accordingly, an organization must discover its own way based on its own unique needs, culture, and environment. Success requires, moreover, a holistic mindset that can both recognize and appreciate the import of the linkages and exchanges between systems, processes, and players so that the “total” organization functions in a coherent fashion. In other words,

[TQM involves] human relations and people problems, organization design issues, engineering design options, monitoring and control approaches and, most of all, a managerial philosophy that can integrate, monitor, and control the multiple elements which render the firm a viable ... whole (Tapiero, 1996:ix).

But, despite the interdependency of these factors, atomistic thinking (Ackoff, 1981; Laszlo, 1994), short-termism (Zairi, 1994) and hubris (Huddleston, 1995) have tended to prevail more often than not over a long-term vision, shared learning, and genuine knowledge (Deming, 1986; Sashkin and Kiser, 1991; Senge, 1990, 1994). The departure between espoused theories and implicit assumptions (Argyris and Schön, 1996) undermined many well-meaning first efforts to implement TQM as countless organizations dispensed with selected parts of its intellectual core based on just a casual grasp of the jargon and a few quality tools (Easton, 1995). Thus, hype obscured TQM’s real purposes; appearances masqueraded as commitment; methods took precedence over reason; and learning assumed business as usual—something was getting lost in the translation of quality’s precepts into actual practice, as Huddleston (1995) explains:

Although TQM was the subject of great celebration, its application was clumsy, inarticulate, and in employees’ faces all the time. In the beginning years, it was a model for reality, not reality itself. Quality was something of a spectacle; when the quality training was over, it was time to get back to work (Huddleston, 1995:61-62).

<sup>4</sup> Predictably, enthusiasm for TQM started to wane under a heavy barrage of harsh criticism that total quality management doesn’t really work (Cole, 1995; Merrill, 1995; Zairi, 1994). Since early failures were commonplace—as many as seven out of ten TQM programs were unsuccessful (Merrill, 1997:1)—the expression TQM has tended to take on a somewhat negative connotation (Cole, 1995; Evans and Lindsay, 1999). Instead of evoking visions of organizational excellence, the very mention of TQM can call to mind grisly images of ineffective programs, quality zealots, sundry statistical tools, management hard sell, and lip service. For the scores of organizations that couldn’t make it work, for the nonbelievers and disenchanteds, TQM represents just one more fad in a

long line of prescriptions and elixirs intended as universal solutions for intractable management problems.

But, irrespective of the bad press TQM has received, quality performance still has improved across a broad range of industries (Cole, 1995) since its celebrated debut in the early 1980s. For these winning organizations, TQM is not just about the tools and it is not merely fad or caprice (Porter and Tanner, 1996; Sashkin and Kiser, 1991); rather, the quest for excellence is a compelling and “inescapable way of life” provoked by the shared desire to learn and improve (Senge, 1994:61). In order to succeed, these organizations have had a clear understanding of what quality means, how it relates to members’ roles, and how it ties to the organization’s strategy to provide value to customers. And, above all, they understand that quality is a serious long-term endeavor.

All the same, even if history should happen to one day regard the TQM movement of the 1980s as a passing organizational fancy, certainly the underlying issues addressed by TQM are not fads (Bounds et al., 1994:60; Sashkin and Kiser, 1991:111). That the force of global competition renders quality management a strategic necessity (Easton, 1995) is now well known. As such, it is inconceivable that an organization would not aspire to excellence by design or that it would ever deem the prospect of delivering high quality products and services merely fad, foppery, or fashion (Bounds et al., 1994:60; Porter and Tanner, 1996)! In the end, if an organization doesn’t mind its customers, its competitors will!

On balance, the American quality movement has proven itself to be resilient and its teachings have firmly taken root to become mainstream business practice (Cole, 1995; Evans and Lindsay, 1999), even in the wake of some disappointing results and the disparaging commentary of its detractors. Out of TQM failures learning has happened and with it has come the collective knowledge on what it takes to succeed.

Be that as it may, some organizations have found it useful to recast quality as something else to escape the stigma associated with the label “total quality management” (Cole, 1995; Evans and Lindsay, 1999). Among the preferred appellations at this time are “total quality” (TQ) and “quality management” (QM) (Evans and Lindsay, 1999). But, no matter what an organization may choose to call it, there is “a strong and identifiable link” between the fundamental principles of TQM and world-class performance (Evans and Lindsay, 1999; Oakland, 1999; Porter and Tanner, 1996:1).

<sup>5</sup> Despite popular claims that the term “total quality management” (TQM) has in recent years “fallen out of favor within the business vernacular” (Evans and Lindsay, 1999:xvii), a recent search of the ProQuest<sup>®</sup> database revealed otherwise. When compared with the adoption rates for the alleged preferred names QM and TQ, usage of the tag total quality management has not diminished significantly in the period since 1999. Of note, the spreadsheet below (Table 6-3) shows a fair number of articles still carry the moniker total quality management in titles and abstracts on the subject, both among peer-reviewed and popular publications.

**Table 6-3  
TQM, QM, and TQ: Years 1999 – Present**

<b>BY TITLE</b>	<b>TQM</b>	<b>QM</b>	<b>% DIFF</b>	<b>TQ</b>	<b>% DIFF</b>
PEER	627	502	19.94	76	87.88
ALL	829	974	17.5	190	77.08
<b>BY ABSTRACT</b>	<b>TQM</b>	<b>QM</b>	<b>% DIFF</b>	<b>TQ</b>	<b>% DIFF</b>
PEER	1228	1095	10.83	137	88.84
ALL	1843	3462	87.85	626	66.03

Moreover, the adoption rates for the new labels are mixed. Although QM has gained some ground over TQM for the years reported TQ has not. That is to say, when compared with TQM, the percent differences illustrate that authors in general seem to favor quality management to total quality, respectively. Likewise, if we focus on the most recent publications, i.e., for the years 2005 and 2006, we get comparable results as shown in Table 6-4 below.

**Table 6-4  
TQM, QM, and TQ: Year 2005 - 2006**

<b>BY TITLE</b>	<b>TQM</b>	<b>QM</b>	<b>% DIFF</b>	<b>TQ</b>	<b>% DIFF</b>
PEER	108	107	.93	7	93.5
ALL	139	295	112.2	34	75.53
<b>BY ABSTRACT</b>	<b>TQM</b>	<b>QM</b>	<b>% DIFF</b>	<b>TQ</b>	<b>% DIFF</b>
PEER	195	276	41.54	24	87.69
ALL	316	1085	243.3	154	51.26

Since the reports of TQM's demise are apparently premature and in the words of Mark Twain, "greatly exaggerated," this paper takes the literary license of using QM, TQM, and TQ interchangeably to refer to an organization's efforts to implement the principles and tools of quality and continuous improvement.

<sup>6</sup>Quality is a ubiquitous issue, one that has moved beyond the ambit of private enterprise to emerge as an important priority for all organizations regardless of their economic persuasion or mission. By and large, much has changed across the public sector landscape in the years since Osborne and Gaebler (1992) first published their famed book, *Reinventing Government*. Notably, the Clinton administration launched the National Performance Review (NPR) (Osborne, 1997); Congress passed key legislation that mandated federal agencies to do strategic planning and measure performance (GAO, 1997); and in state and municipal government, administrators have incorporated the principles of quality into their practices and activities to better serve their constituents (Evans and Lindsay, 1999). At all levels of government, reinvention and performance management (PM)/performance review (PR) have become key elements in the campaign

to create a more results-based government (National Governors Association, 1998; Shafritz and Russell, 2000).

Quality improvement has also emerged as a big priority in a variety of service industries (Milakovich, 1995). Just like their production counterparts have found, service industries are not exempt from cost pressures and the need to streamline processes to improve efficiency and customer support (Tuttle, 1994). As such, many service organizations have recognized the potential value of adapting QM theories and techniques to their operations and administrative systems (Evans and Lindsay, 1999).

One service industry that has widely embraced TQ is healthcare (Evans and Lindsay, 1999; Milakovich, 1995). As increasing public and government attention focuses on the healthcare delivery, its providers have looked to quality improvement as a means of achieving better performance and lower cost (Evans and Lindsay, 1999:56). Likewise, in the field of higher education, colleges and universities face increasing demands to do better. Rising fiscal, social, and political pressures necessitate that universities rethink their roles, where their core markets lie, and how best to reach them (Ryan et al., 2000). More and more institutions of higher learning are embracing quality for the same reasons that led industry, government, and healthcare to embrace it: quality is both a necessity and precondition to achieve and sustain high performance (Milakovich, 1995; Mische, 2001:15; Tuttle, 1994:26).

<sup>7</sup> Barring any idiosyncratic differences between methods, most quality advocates preach that quality is something that “begins and ends with the customer” (Capezio and Morehouse, 1993; Saylor, 1996). An oft-cited maxim in the quality literature is that the “customer defines quality.” From this dictum has emerged a popular definition that defines quality as “meeting or exceeding the customer’s expectations” (George and Weimerskirch, 1994; Kehoe, 1996:1).

Although it is quite questionable that the concepts of quality and customer satisfaction are perfectly synonymous (Ross, 1995:98), there is an assumed or implied linkage between the two that shows up time and again in discussions on the topic. For example, Crosby (1979:17) argues that quality is a matter of “conformance to requirements.” The question of “whose requirements” suggests at once the existence of a customer or customers. Likewise, the quality–customer connection is also endemic in the teachings of Deming (1986) and Juran (1988). The former argued that

[T]he consumer is the most important part of the production line. Quality should be aimed at the needs of the consumer, present and future (Deming, 1986:5).

The latter defined quality as “fitness of use,” such that “there are many uses and users” (Juran, 1988:11). Credited as one of the first persons to distinguish between external and internal customers (Pike and Barnes, 1994), Juran (1988:5, 6) described quality in terms

of an emergent “spiral of progress,” which includes all clients of an organization’s processes and products.

Ultimately, customer satisfaction is both the goal of quality and the mission of an organization (Gitlow et al, 1989; Watson, 2002). Or, to paraphrase management expert Peter Drucker (1973:100), “an organization has but one purpose, to create a customer” (Ross, 1995; Watson, 2002).

<sup>8</sup> Given that customer satisfaction is the ultimate goal of quality (Gitlow et al, 1989), an organization still faces the problems of identifying who its customers are; determining what they expect or need; and confirming that their expectations have been met (Kehoe, 1996:1; Ross, 1995:97).

<sup>9</sup> A transcendent view of quality implies that quality is

...Something timeless and enduring, an essence that transcends or rises above individual tastes or styles. It often regards quality as an unanalyzable property that people learn to recognize through experience, just as Plato argued that beauty can be understood only after exposure to a series of objects that display its characteristics (Bounds et al., 1994:45).

According to one transcendent view of quality, it is somewhat of an intangible based on perception:

Quality is neither mind nor matter, but a third entity independent of the two... [E]ven though quality cannot be defined, you know what it is (Prisig, 1974:185, 213).

Other equally esoteric views of quality rely on descriptors such as the “best in category” (Bounds et al., 1994:45) where “best” is a referent to suggest the paragon of something in comparison to other such entities. For example, at a dog show, the best in breed refers to a canine of distinction that exceeds all others—a perfect specimen of the genus. Inherent in words such as “best”, “quintessence”, “paramount”, “finest”, and “greatest” is an implied measure of goodness. However inspirational, these adjectives do not provide a clear picture *how* to pursue excellence.

<sup>10</sup> Part of the difficulty is that quality exists in the “eye of the beholder” (Doyle, 1991:54-62). For example, a quality car, a quality professor, a quality restaurant, and an indescribable quality (Hart and Bogan, 1992:4) are expressions of excellence that call to mind different images, each of which likely varies from person to person. Furthermore, quality has many dimensions (Shields, 1999:166), so different people stress different things (Bounds et al., 1994:44; Pike and Barnes, 1994). Consider the following examples:

- Quality means meeting agreed requirements between individuals, sections, departments, divisions, and companies (Spenceley, 1992:20).



- Quality embodies those attributes of a product or service that the customer attaches value to (Jablonski, 1991:131).
- Quality means conformance to standards, not “goodness” and the performance standard is zero defects (Crosby, 1979).
- Quality is fitness to use (Juran, 1988).
- Quality is meeting or exceeding customer expectations (George and Weimerskirch, 1994; Kehoe, 1996).
- Quality is a principle that promotes excellence in products, services, strategies, systems, processes, and people (Bounds et al., 1994:43).
- Quality is the degree of excellence a product or service provides (Besterfield et al., 1999:1).
- Quality is “not just an attribute of products and services; it is a mindset, the soul of the company itself, an all-pervasive drive of such intensity that it defines the corporate culture” (Marchese, 1994:435).

What is most striking about these definitions of quality is their range of interpretation, from narrow (e.g., conformance to standards) to very broad (e.g., degree of excellence), from a philosophical bent (e.g., a mindset) to an emphasis on measurable attributes (e.g., zero defects). Clearly, each description tells part of the story, but none alone captures all the nuances of quality.

<sup>11</sup> The matter of quality perception is more complex than just the degree of professed satisfaction by a customer towards some product or service. According to one perspective, there are three levels of quality awareness that quite interestingly parallel Maslow’s hierarchy of needs (Tapiero, 1996). From lowest level to the highest, these are as follows:

- The first level of quality awareness is “congruence,” which embodies the correspondence of behaviors between commodity/service providers and the customer. This includes behaviors such as the proper degree of politeness, the observance of protocols like handshaking, and other similar ceremonial acts.
- Next, perceived degree of “satisfaction” has to do with observable, measurable phenomena such as timeliness.
- Lastly, the top level of quality awareness is the degree of “emotional satisfaction” felt by the customer. An example of this level of perception is the sense of inclusion or belonging that a person may

ascribe to a given product or service (Klaus, 1991:261-263 as cited in Tapiero, 1996:13).

Tapiero (1996:13) notes furthermore that just like Maslow's hierarchy, the fulfillment of higher levels of quality depends on meeting lower level needs first. Notwithstanding either the importance or contribution of psychosocial factors to our understanding of quality and its management, Tapiero adds that these aspects of quality have received scant scholarly attention. Instead the usual targets of inquiry have tried to objectify quality, with the search for benchmarks and other such standards.

<sup>12</sup> Because a customer is any person who feels the impact of a product or process, this opens up the possibility that an organization's customers come from both inside and outside the organization (Juran, 1988).

Conceived in terms of inputs, processes, and outputs, customers receive process output from suppliers, as shown in Figure 6-3. Hence, an internal customer is any individual within an organization who is on the output or receiving end of a process. Consequently, the internal-supplier relationship extends to every person *in* an organization.

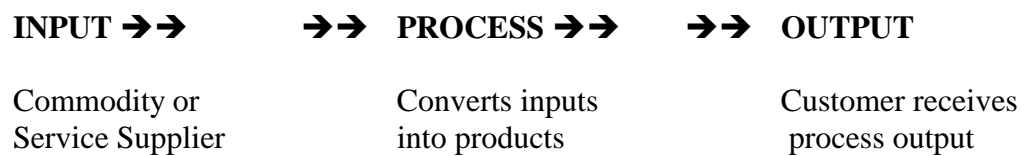


Figure 6-3

External customers are individuals outside the confines of an organization that buy what the organization sells (Berk and Berk, 2000:13). Juran extends this definition to include the organization's stakeholders, users, and suppliers—those individuals impacted by the products and/or services of the organization. Following from Juran's (1988:9) broad point of view, external customers could include the organization's clients, its owners, the media, local communities, lawmaking bodies, and the public at large.

<sup>13</sup> For most organizations a wholehearted commitment to the customer remains much easier said than done. A genuine customer focus requires the evolution of a culture that regards "total customer satisfaction" as the basis for group meaning and work (Bounds et al, 1994:91). A major part of the challenge entails a change in mindset such that the ultimate product is *customer value* and not the creation of a tangible good or service (Ross, 1994:104). Thus, quality is an ongoing process that recognizes the entire organization as a system of systems, where each is part of a progression that delivers *something* of worth to a customer.

Many quality programs fail because they miss this point (Ackoff, 1998; Bounds et al., 1994; Harari, 1993). A customer focus goes beyond slogans and lip service. Deming's (1986) *Fourteen Points* insist that organizations do away with quality refrains and

production targets because they have no meaning unless they evolve from the workforce (Capezio and Morehouse, 1993) to become a cultural norm.

Juran (1988:4) also rebukes the use of pithy catchphrases to explain or promote quality on the grounds that “the short phrase is a trap.” While a succinct slogan is easy to remember the sheer simplicity of expressions like the widely held quality definition “to meet or exceed the customer’s expectations” may conceal all the complexities involved without any forethought and further elaboration.

Costin (1994:4) adds that the danger of such generalizations is that the concepts they purport to clarify become too hazy and unfocused to promote genuine understanding and guidance. For this reason it is necessary to interpret quality as a complex, multi-dimensional construct (Shields, 1999) –one that involves the interplay of human values and technical goals (Costin, 1994).

<sup>14</sup> When conceived as a function of customer requirements and expectations, Tapiero (1996:3) submits that it is really not possible to define beforehand what quality is because quality is at once a variable that rests on the choices that consumers make relative to a range of potential and competing goods and services. As a result, the lack of a priori information presents an interesting dilemma since competitive success hinges to a large degree on proactivity, not reactive management. Therefore, Tapiero suggests a definition of quality based strictly on the customer is at best a guess.

<sup>15</sup> While there is no exact consensus on what constitutes quality (Costin, 1994; Imai, 1986) contemporary writers in the field generally agree that conceptual diversity is apropos due to quality’s many dimensions and the inherent differences between organizations. For example, Fortuna (1990:11) submits that “quality cannot be copied; there is no step-by-step cookbook” that is relevant to all organizations and situations.

In a similar vein, Gutmann (1991) argues on behalf of a “principle of pluralism” which equates quality to an organization’s specific purposes. The upshot of Gutmann’s approach is a derivative of the long-standing maxim, “form follows function.” Thus, how any given organization defines and improves quality depends on its values and the activities it performs as a whole.

Ross (1995:97) affirms that multiple interpretations are indeed possible, probable, and fitting since no single viewpoint captures all of quality’s qualities. In keeping with Juran’s (1988) idea of internal and external customers (see note 12), Ross submits, moreover, “it may be entirely appropriate for quality to be defined or perceived differently in the same company depending on the particular phase of the product life cycle.”

Costin (1994:4) suggests that quality should integrate human, strategic, and technical perspectives. For this writer, the key concerns pertaining to quality are strategy, mission, vision, and measurement (e.g., internal and external benchmarking).

<sup>16</sup> The principle of customer-driven quality is a logical extension of the quality notion of the customer. As explained above in note 12, “customer” is a broad term applied to describe the users or recipients of products or services (Juran, 1988; NIST, 2001b) both within and outside an organization. This definition, when viewed from a systems perspective, suggests the existence of a “quality chain,” a linked series of relationships between suppliers and customers for all processes involved in the delivery of goods and services (Oakland, 1999:50). The ability to meet or exceed customer requirements at each point in the sequence has wide implications for what total quality is because problems in any one part of the system will encroach on all processes that follow it. Conceived in this way, quality is something that starts and ends with the customer—to wit, the customer *drives* (defines) quality.

In less esoteric terms, Lee Iacocca once publicized that he had just three rules for running Chrysler Corporation: “Satisfy the customer, satisfy the customer, and satisfy the customer” (Berk and Berk, 2000:4). For many, this obsession with the customer is the essence or core meaning of quality (Costin, 1994), as the following statements illustrate.

- Quality is a function of the customer, which originates from a deeply held organizational belief both to meet customer needs and exceed their expectations (Ciampa, 1992).
- Everyone engaged in any organizational endeavor has a customer (Berk and Berk, 2000:15) to make happy and keep happy.
- Quality is whatever goods or services that the customer attaches value to (Jablonski, 1991). Juran (1988) expresses this idea as fitness to use.
- Quality means the customer is king; customer requirements, desires, hopes, and fears must be scrutinized continuously (Brocka and Brocka, 1992:12).

<sup>17</sup> Continuous improvement of all processes and systems is a pervasive theme in the quality literature (Costin, 1994; Marchese, 1994). Next to customer-centricity, constant improvement is the major message and *raison d’être* of the quality movement. Writers express this idea in a number of ways such as:

- Quality is the endless pursuit of continuous system-wide improvement, which evolves by challenging existing values and ideas (McNealy, 1993).
- Quality is “the integration of organizational philosophy, techniques, and structure to achieve sustained performance improvements in all activities on an uninterrupted basis” (Gilmore, 1994:46).
- The essence of quality is “continual learning as a way of organizational life, especially improving the performance of the organization as a total system” (Senge, 1994:60).

- The “gene” of continuous quality improvement is action inquiry, a type of behavior that is at the same time probing and productive (Fisher and Torbert, 1995:13).
- Continuous improvement, the essence of quality, begins with people. “Building quality into people means helping them become *kaizen*<sup>18</sup> conscious” (Imai, 1985:xxiii).
- To achieve a quality transformation, Deming’s (1986) “Fourteen Points” advises management to identify problems and constantly strive to improve the system. Or, as one author admonishes, “Good enough is never good enough. Nothing less will do in the effort to build quality” (Johnson, 1993:xviii).

<sup>18</sup> Kaizen is a Japanese word meaning “continuous improvement.” In particular, it consists of small incremental steps or gradual improvements that raise the level of an organization’s performance without disruption (Bounds et al., 1994:793; Imai, 1986:24). According to Imai,

[Q]uality is anything that can be improved. When speaking of “quality” one tends to think first in terms of product quality. When discussed in the context of *kaizen* strategy nothing could be further off the mark. The foremost concern here is with the *quality of people*. The three building blocks of a business are its hardware, software, and “humanware.” Only after humanware is squarely in place should the hardware and software aspects of a business be considered. Building quality into people means helping them become *kaizen* conscious (Imai, 1986:xxiii).

<sup>19</sup> Quality is both a shared mindset (Oakland, 1999) and ubiquitous goal that commands the attention of all members (Bounds et al., 1994:80) of an organization when that organization is committed to excellence (Lawler et al., 1995). Some representative facets of a “quality culture” include:

- Quality is a value shared by all that fosters excellence in everything: products, strategies, systems, processes, and people (Bounds et al., 1994:794).
- When a culture supports quality the collective will to provide “superior customer value” (Bounds et al., 1994) and constantly improve imbues the entire organization. It is part of a shared belief system that emanates from a common commitment to the quality cause (Senge, 1990, 1994).
- The climate is one of openness. People freely question their assumptions and behaviors in order to encourage individual growth and change (Bounds et al., 1994; McNealy, 1993; Senge, 1990, 1994).

- A quality culture supports learning and experimentation. Excellent quality goods and services are inevitable in an organization whose culture values continuous learning (Mohrman and Cummings, 1989; Sherwood, 2000).
- For Hunt (1992), “Quality First” is an aphorism that embodies the guiding philosophy and engine of constant improvement that sets the course for the quality-driven organization.

<sup>20</sup> A visionary leader is one who sets a clear path for an organization to follow in order that it may achieve excellence, fuel innovation, foster improvement, and encourage learning (NIST, 2001b). Following from this depiction a recurring theme in the literature holds that visionary leadership is a necessary precursor to advance quality in an organization, as these next few examples show:

- The main driver for quality is leadership (NIST, 2001b); the medium for effective leadership is understanding, commitment, and constancy of purpose (Oakland, 1999).
- The quintessence of visionary leadership is clarity of purpose; a long-range outlook; a coaching style of management; participative change; and empowerment of others (Anderson et al., 1994:480).
- “Quality is not a magic wand that can solve all problems. Without leadership commitment, it is easy for quality to become just another buzzword” (Unruh, 1995:14).
- Ciampa (1992) suggests that visionary leaders promote quality in two ways. The first approach is to put in place policies, procedures, rules, and systems to direct the efforts of employees. The second approach is to create a common vision of the future that is compelling and inspiring.
- Quality leadership involves three main duties: 1) to lead by example; 2) to catalyze change; and 3) to develop people (Suttler, 1995:45).

<sup>21</sup> Quality success depends on the full involvement of each person within an organization (Harrington and Harrington, 1995; Merrill, 1997; Saylor, 1996; Unruh, 1995). According to numerous pundits, employee involvement enlists a range of forms (Bounds et al, 1994:472) where individual empowerment and education engage the front of sustained participation (George and Weimerskirch, 1994; Harrington and Harrington, 1995) and the team is the main enabling mechanism to support the quality effort (Kinlaw, 1992; Saylor, 1996; Schein, 1991). On the mutually supporting roles of participation, empowerment, and learning, experts generally agree that:

- People should be empowered to have real input and decision autonomy in all aspects of work that affect them (Berk and Berk, 2000; Marchese,

1994; Oakland, 1999). In such a culture there is respect for employees' knowledge and all individuals actively contribute to and participate in the improvement process (Fortuna, 1990; Lawler et al., 1995).

- In order that quality flourish in an organization there must be both an individual commitment to excel and the synergism of a joint effort (Harrington and Harrington, 1995:21).
- “Transforming the organization means transforming it person by person”; continual quality improvement is an action process that begins at the level of the individual (Fisher and Torbert, 1995:10).
- The effectivity of teams in the pursuit of quality derives from their potential for a high level of performance, flexibility, and adaptability in the face of environmental uncertainty (Kehoe, 1996; Mohrman, Cohen, and Mohrman, 1995; Saylor, 1996; Wellins, Byham, and Dixon, 1994).
- Human learning and continuous improvement are reinforcing processes that serve to shape a successful quality effort (Ciampa, 1992; Senge, 1994).

<sup>22</sup> The pursuit of quality is an all-inclusive process that guides and powers the entire enterprise (Hiam, 1992:69). A vital aspect of this process is a future orientation (NIST, 2001b) and the specification of a long-term plan for performance excellence—a long-range strategy centered on the creation and continuous enhancement of customer value (Bounds et al., 1994). Ultimately, all interim or short-term plans and activities reflect this longer-term objective (NIST 2001b).

Also called a “period plan,” “strategic plan,” and “five-year vision and strategy,” the purpose of the long-term plan is the alignment of an organization’s goals and philosophies, critical success factors, and key resource structures (Anschutz, 1995; Evans and Lindsay, 1999; George and Weimerskirch, 1994; Kano, 1992; NIST, 2001b; Oakland, 1999; Saylor, 1996) to achieve some desired future. When quality performance is to be an integral part of that future, it becomes the cornerstone of the plan and planning effort. As a result, a focus on quality and ever-improving customer value is evident in everything an organization does, from its mission to its supporting policies (Greenberg, 1990; Ross, 1995). In this way a long-range view of the future takes in hand the following strategic questions that together are the drivers and supporting rationale for quality improvement throughout the organization:

- Who are the organization’s customers?
- What is the organization’s mission?
- What principles does the organization value?

- What are the long-range goals and short-range objectives of the organization?
- How does the organization go about accomplishing these goals? (Evans and Lindsay, 1999:126).

In other words, the ensuing plan is a “broad formula for how a business is going to compete” (Porter, 1980:xvi) –one that serves as an integrated framework and map to guide change and support action where the overarching concern is (in this case) the quality imperative (Ciampa, 1992:34). The plan, moreover, is a “living plan” that reflects outside conditions (Kano, 1992; Porter, 1980) and evolves in concert with organizational learning, knowledge, experience, and needs (Ebel, 1991:33; Fisher and Torbert, 1995; Hiam, 1992; Senge, 1994).

Owing to these dynamics, there is general accord in the scholarly and popular press that a long-range quality vision that drives all planning and deployment actions is endemic to an organization’s sustained performance excellence and continuous improvement. Some examples that typify this perspective follow.

- For Mische (2001:253), the real issue is a matter of “constant renewal and regeneration,” which are inherently long-range behaviors. Noting that “quality is [both] a *necessity* and *precondition*” to be competitive, he argues that the chief purpose of “strategy and strategic change is to create and sustain long-term high-performance” (Mische, 2001:15, 2).
- The quality plan and the business plan are one and the same thing (George and Weimerskirch, 1994:56), the purpose of which is to “develop and implement a long-term approach for discovering, creating, and improving customer value” (Bounds et al., 1994:211).
- “Strategic quality planning involves the long range aspects of quality improvement” (Badiru and Ayeni, 1993:50).
- Constant improvement requires a long-term commitment to excellence, which, in turn, flows from a carefully planned and fully integrated strategy anchored in the purpose of the organization (Oakland, 1999:18).
- The need for a long-term quality vision arises from the reality that culture change does not happen overnight (Oakland, 1998). To cultivate and sustain an ethos of constant improvement requires enduring, widespread commitment to a comprehensive process that guides and drives the entire organization (Hiam, 1992).
- One author succinctly explained the necessity for a long-term commitment to performance excellence as follows: “Quality improvement takes time. It



is a developmental process with many steps, not a ‘quick fix’” (Garvin, 1991:86).

<sup>23</sup> Most quality perspectives underscore the primacy of *process* and *measurement*, where the former is the *target* for improvement (Evans and Lindsay, 1999) and the latter is the *catalyst* for improvement (Zairi, 1994). A discussion of each of these concepts follows.

### *Why Process?*

In the quest for quality and continuous improvement, change is the defining force (Mische, 2001) of organizational excellence and the creation of customer value is its rationale (Bounds et al, 1994:82). As the following perspectives suggest, process is the engine of all such change. An organization committed to quality is, therefore, one that attends to its processes because:

- “Good process breeds good quality” (Badiru and Ayeni, 1993:84).
- All processes lead to the realization of an organization’s goals (Cook, 1995:45).
- “At every supplier–customer interface there resides a transformation process and every single task throughout an organization must be viewed as a process in this way. ... These are activities the organization must carry out especially well if its mission and objectives are to be achieved” (Oakland, 1999:56-57).
- Process effectiveness determines product worth (Creech, 1994) and customer value (Bounds et al., 1994) in one of three ways: 1) something is available *when* needed; 2) something is available *where* needed; and 3) something is available *how* needed (Gitlow et al., 1989:38).

Formally defined, a *process* is a series of interrelated steps or actions used to transform input—raw materials, equipment, human skills, and/or data (Born, 1994; NIST, 2001b; Wright, 1989) –into output—products, services, or information for a customer (Badiru and Ayeni, 1993; Bounds et al., 1994; George and Weimerskirch, 1994; Gitlow et al., 1989; Oakland, 1999). The relevance of process to quality is a function of the transformation activities that occur for therein lies “how work creates value for customers” (Evans and Lindsay, 1999:127), be those customers internal to the organization or part of its “task environment,” i.e., external actors which affect goal setting and attainment (Dill, 1958; Mohrman and Cummings, 1989:50; Thompson, 1967:27). Such processes are present everywhere in organizations (Gitlow et al., 1989:39); everything that takes place in organizations is the consequence of one or more processes (Cook, 1995; Ebel, 1991; Evans and Lindsay, 1999; Oakland, 1999). For that reason the role of process is vital to total quality and the oft stated goal of continuous improvement is tantamount to continuous process improvement—moving a process to a higher state of performance (Badiru and Ayeni, 1993).

Quality's emphasis on process is an outgrowth of two parallel developments: (1) the General Systems Theory (GST) movement—namely, the explicatory strength and broad applicability of systems thinking to organizations as discussed earlier in this chapter—and (2) the failure of traditional management practice to address effectively the rigorous demands of the “new competitive landscape” (Mische, 2001:3; Mitroff, 1987; Mohrman and Cummings, 1989; Peters, 1988; Waterman, 1987). Among the many shortcomings attributed to the latter, hierarchical management (Evans and Lindsay, 1999) does not adapt quickly to change (Senge, 1990), especially the need for continuous high performance to create and improve customer value (Bounds et al., 1994:338; Mische, 2001). As a result, students of quality (Deming, 1986; Ziegenfuss, 1993) and organizational excellence (Oakland, 1999; Senge, 1990) have found it both useful and preferable to conceive of an organization as an open system in flux with its environment (Emery and Trist, 1965; Katz and Kahn, 1978; Pasmore, 1988) as opposed to an aggregation of discrete functions (Bounds et al., 1994:299).

Envisaged as an open system, an organization is an amalgam of interdependent elements—inputs, transformation processes, outputs, and feedback loops—that work together synergistically to create products and services that others want (Gitlow et al., 1989; Rehtin, 2000). Through exchanges with the environment and across functional areas and/or operations (Badiru and Ayeni, 1993; Bounds et al., 1994), the organization translates inputs into outputs, builds customer satisfaction, and adapts to the outside world.

It is important to note that while all processes have inputs and outputs, i.e., suppliers and customers, respectively (Gitlow et al., 1989; Oakland, 1999), the flow of work is not necessarily linear from one process to the next (Bounds et al., 1994) but may instead engage an elaborate web of relationships, the character of which is conditional on the complexity of the overall system (Badiru and Ayeni, 1993). Therefore, the pursuit of continuous improvement is one that stipulates, “quality must be built into each process” (Ishikawa and Lu, 1985:79) simultaneously and with forethought to the total system since the performance of the whole hails from the interaction of all its parts (Ackoff, 1981). To do otherwise may yield only negligible improvement because of constraints imposed by the remainder of the system (Bounds et al., 1994:306). As such, total system performance is a function of the performance of all of its supporting processes, subprocesses, tasks, and activities (Badiru and Ayeni, 1993). To raise the performance of the total system is to improve the performance of each process in relation to all other processes.

So, in short, an organization is an open system which consists of multiple and varied kinds of interrelated processes (Bounds et al., 1994:306; Ross, 1995); a process embodies the “sequential states of a system” and is roughly “synonymous with change” (Bowler, 1981:6); and the subsequent value added by the system as a whole depends on how its processes interact, not how they act independently of one another (Ackoff, 1981:18).

### *Why Measurement?*

*Measurement* is the act of putting a value on the performance aspects of goods, services, processes, and other business practices (Evans and Lindsay, 1999:470). Measurement begets *measures* and *indicators* (indirect measures), the numerical grist that results from quantifying performance (Ibid). In general, there are four levels of measurement:

1. Nominal: Scales that categorize or name the values of a variable.
2. Ordinal: Scales that address rank order but do not measure quantitative differences.
3. Interval: Scales that measure quantitative differences between variables. An interval scale does not have a fixed or absolute zero-point.
4. Ratio: Scales that rank and measure differences between variables with an absolute zero-point (O'Sullivan and Rassel, 1989).

On the whole, the purpose of measurement in the context of business activities is to determine how well an organization is functioning or meeting its goals. As a rule of thumb, performance indicators and associated objectives are measurable on an interval or ratio scale while goals, aims and purposes use nominal and ordinal scales (Kaufman, 1997:99).

Nearly all quality approaches emphasize regular assessment of an organization's pursuits so that the organization may gauge its level of performance (Capezio and Morehouse, 1993; Porter and Tanner, 1996; Zairi, 1994). Words such as "benchmark" have become commonplace in management discourse as organizations have come to realize that without measurement there is no way to distinguish improvement (Kinlaw, 1992; Zairi, 1994:xiii). Recognizing this relationship, a variety of contributors to the field vehemently uphold the need for and practical virtues of measuring quality improvement (Bounds et al., 1994; Deming, 1986; Garvin, 1988; Juran, 1992; Kinlaw, 1992; Ross, 1995; Shewhart, 1931). Of particular note, one quality spokesperson argues on behalf of keeping "improvement and measurement together as elements in a unified concept" because

... we cannot know that we have improved the quality of performance until we have measured it. ... Improvement and measurement must be *kept together* because improvement in the quality of performance cannot be planned or verified unless it is measured. For purposes of guiding decisions, improvement does not exist (in any useful way) until it is measured (Kinlaw, 1992:7-8; own emphasis added).

A number of others have expressed similar opinions, too, about the inextricable link between measurement and improvement, as the following views show.

- “Measure and it will improve” (Zairi, 1994:xvi).
- Measurement is a major element in the continuous improvement process (Capezio and Morehouse, 1993:197).
- Constant improvement hinges on regular feedback (Globerson, 1985 as cited in Zairi, 1994:293).
- Performance measures motivate behavior leading to continuous improvement (Lynch and Cross, 1991:1).
- Constant improvement calls for measurement and understanding how top performance may be achieved (Porter and Tanner, 1996:1).
- Measurement is the vehicle through which an organization institutionalizes continuous improvement. (Kinlaw, 1992:16).

The unmistakable corollary that hails from these perspectives is that quality improvement is not random change, rather it is a premeditated, measurable strategy for organization development (Kehoe, 1996; Kinlaw, 1992; Lindsay and Petrick, 1997; Zairi, 1994). And, while some of the numbers deemed most important and desirable to have are often “unknown or unknowable” (Deming, 1986:20, 344; Evans and Lindsay, 1999:470), the right feedback data (Merrill, 1997) can help to make quality improvement less arcane and more tangible. Data—not chance or assumption—confirms that improvement has occurred. Because of this indispensable role, there is general consensus that measurement is both a “critical enabler” of quality (Ross, 1995) and the “cutting edge” (Merrill, 1997) of constant improvement (Evans and Lindsay, 1999; Oakland, 1999; Zairi, 1994).

In effect, measurement motivates curiosity and questioning, which, in turn, is the catalyst for improvement as people challenge how things work and work gets completed (Zairi, 1994:6). To be specific, measurement provides critical feedback and plays an important part in:

- Monitoring progress against organization goals
- Sighting opportunities for improvement
- Comparing how performance matches up to internal standards
- Weighing performance against external standards (Oakland, 1999:246).

Similarly, Osborne and Gaebler (1992), authors of the famed work on reinventing government make four insightful observations that encapsulate the whys and wherefores of performance measurement:

1. What gets measured gets done.

2. If you don't measure results, you can't tell success from failure.
3. If you can't see success, you can't reward it—and if you can't reward success, you are probably rewarding failure.
4. If you can't recognize failure, you can't correct it (Osborne and Gaebler, 1992:146-154).

For an organization to improve and move forward “with any degree of confidence” (Mische, 2001:247), it must proceed purposefully (Ackoff, 1981; Ziegenfuss, 1989). This means that the organization must be able to answer three basic questions: (1) Where are we now and how did we get here; (2) Where do we want to go; and (3) What path will we take to get there (Porter and Tanner, 1996:2). Measurement helps to address these fundamental questions by pointing to targets for improvement (Capezio and Morehouse, 1993; Zairi, 1994) and by providing a basis to take action (Deming, 1986; Powell, 1994). In particular, measurement provides the context and grounds for spotting and ranking opportunities for change and better performance (Mische, 2001:247) by aiding communication and by making the idea of customer value operational (Bounds et al, 1994; Ross, 1995). As one celebrated quality guru explains it:

[The need for measurements is to provide] higher precision for communicating quality-related information. ... Vague terminology is unable to provide precise communication. [For that reason] it becomes necessary to ‘say it in numbers’ (Juran, 1992:117).

Thus, by making quality operational, an organization has the data and subsequently the information it needs to make better decisions (Bounds et al, 1994:256; Evans and Lindsay, 1999; Kinlaw, 1992; Schoenberger, 1992). That is to say, measurement gives organizations a common language to express improvement goals, detect problem areas, and find shared solutions for those problems identified (Deming, 1986; Evans and Lindsay, 1999; Oakland, 1999).

On the other hand, if an organization does not capture and analyze its performance data routinely, it becomes difficult to sustain the “momentum, commitment, and motivation” that is needed to be excellent and constantly improve (Porter and Tanner, 1996:1). Zairi (1994:6) observes, for example, that TQM programs sometimes fail because no measurement took place; the programs in questions were left to chance, “as an act of faith.” Likewise, some unsuccessful efforts are a consequence of not taking relevant and/or “meaningful measurement” (Merrill, 1997:124) –i.e., a failure to gather the correct data or data that are consistent with the pursuit of excellence (Oakland, 1999; Porter and Tanner, 1996).

The US Department of Commerce advises that appropriate measures of quality are those that focus on “key results” (NIST, 2001b:4) –especially outcomes which place customer satisfaction and process improvement out in front of financial targets (Bounds et al., 1994). And so many organizations have found it useful to compile a “balanced scorecard”

(Kaplan and Norton, 1996) of measures to gain a holistic view of performance (Evans and Lindsay, 1999:476) –a line of attack that diverges sharply from traditional business practice.

Traditionally, financial measures have reigned as the key indicator of performance (Drury, 1994). However, forces such as global competition, technological advances, more exacting customers, and an increasingly turbulent environment have necessitated a change in emphasis; financial variables alone have proven to be an insufficient gauge of an organization's fitness or destiny (Drury, 1994; Evans and Lindsay, 1999; Kaplan and Norton, 1996; Porter and Tanner, 1996). Accordingly, an unintended outcome of fiscal single-mindedness has been a kind of strategy myopia. "Short-termism" (Zairi, 1994:xiv), a preoccupation with immediate profits and reductions in costs has more often than not eclipsed a long-range view of the future (Drury, 1994:xi).

From the particular standpoint of quality enhancement, a number of authors dub customer satisfaction as the decisive and ultimate measure of performance (Capezio and Morehouse, 1993; Drury, 1994; Gitlow et al, 1989; Zairi, 1994) –a way of thinking which unquestionably originates from the popular definition of quality, i.e., to meet or exceed customer expectations. However, like any single measure, measures of customer satisfaction alone are not a panacea. Absolute opinions based on a single observation are dangerous (Berk and Berk, 2000:78). Even the best indicators will go out of alignment in response to environmental influences (Tanner and DeToro, 1992:135). Equally problematic (as pointed out earlier), some figures are just indeterminate, lying beyond the bounds of human reckoning (Deming, 1986) –for instance, the worth of a faithful customer (Evans and Lindsay, 1999).

To offset these types of issues, the measures that an organization opts to use to track its performance must be weighed with repeated tests of customer approval (Davidow and Uttal, 1989:201; Tanner and DeToro, 1992:135) not to mention tailor-made to fit (Glaser, 1991) the system(s) under consideration. This means that the selected indices must be derived from strategy, be developed to abet business objectives, and be associated cross functionally both to convey goals clearly to everyone in the organization (Grady, 1991; Zairi, 1994) as well as support widespread learning and improvement (Mische, 2001). Since faulty and groundless measures could drive organizations in the wrong direction (Tanner and DeToro, 1992), at the very least, it is important to ask how measures relate to one another. As Eccles (1991:131) notes, it achieves very little to simply graft added measures onto pre-existing economic metrics.

Owing to the need for a greater strategic perspective that heeds the external environment, the trend has been in recent years to treat financial measures as just one variable among a broader set of performance indicators (Eccles, 1991; Zairi, 1994) linking long-term competitiveness to business excellence (Drury, 1994; Dixon et al., 1990; Kaplan, 1983; Kaplan and Norton, 1996; Mische, 2000). Other factors just as important to watch as financial ones include measures for quality<sup>24</sup>, customer satisfaction, innovation, and market share (Eccles, 1991). In general, the most effective measurements for

performance are those that focus on process, are geared toward improvement, and directed toward positive action (Bounds et al., 1994; Drury, 1994; Evans and Lindsay, 1999; NIST, 2001b; Zairi, 1994:6).

<sup>24</sup> Recent efforts both to codify quality and provide a basis for measuring it (Ross, 1995:99) have borne the dimensions shown below in Table 6-5 (Besterfield et al., 1999; Costin, 1994; Garvin, 1988).

**Table 6-5**  
**The Dimensions of Quality**

<b>Dimension</b>	<b>Definition</b>
Performance	Primary operating characteristics
Features	Secondary product characteristics (e.g., bells and whistles)
Conformance	Meeting specifications or industry standards
Reliability	Consistency of performance over time (mean time to first failure)
Durability	Useful life
Serviceability	Resolution of problems and complaints (speed, courtesy, competence, and ease of repair)
Response <sup>+</sup>	Human-to-human interface (timeliness, courtesy, competence, etc.)
Aesthetics*	Sensory characteristics (how a product looks, feels, tastes, or smells)
Perceived Quality*	Reputation and other intangibles
<sup>+</sup> Suggested by Besterfield and associates only.	
* These are the most subjective dimensions.	

Adapted from: Besterfield et al. (1999:6 ) and Garvin (1988:49-60)

While the above dimensions apply most directly to manufactured goods (Costin, 1994:12), as a set they call attention to the fact that a particular good or service may be excellent in one dimension but not in another (Besterfield et al., 1999). Moreover, the dimensions help to operationalize an otherwise vague and fuzzy concept. They provide a common language to communicate quality (Juran, 1992). And, since no single dimension stands alone as the authoritative quality benchmark (Ross, 1995), it underscores the idea that how any organization addresses quality is an individual decision.

There are many methods for measurement suggested in the quality literature, which range in complexity from simple frequency analysis to more complex statistical methods. While each method has its purpose, one interesting approach suggested by Besterfield et al (1999) stands out because it has great appeal for the statistically phobic and mathematically challenged.

Building on the perspective that quality means “meeting or exceeding customer expectations,” the group operationalizes this definition with the following ratio, which they use to assess the nine quality dimensions suggested by Garvin (1988):

*Quality = Actual Performance ÷ Customer Expectations* (Besterfield et al, 1999)

In other words, by comparing actual performance vis-à-vis expected performance, it is possible to determine “the degree of excellence a product or service provides” (Besterfield et al, 1999:1). Because each of the nine dimensions are relatively independent (i.e., a product is excellent in one aspect but may be poor in another), it is possible to isolate areas for improvement.

<sup>25</sup> As previously mentioned above in note 18, kaizen is a Japanese word meaning “continuous process improvement.” In effect, kaizen employs small incremental steps or gradual improvements that raise the level of an organization’s performance (Bounds et al., 1994:793; Imai, 1986:24).

<sup>26</sup> Given the wealth of quality definitions that people proffer, it is no surprise really to find a corresponding cornucopia of QM definitions, perspectives, metaphors, and approaches. Among the myriad ways people explain, describe, or otherwise define QM are paradigm shift, shared vision, business strategy, culture change, management process, common sense, and as something closely akin to religion (Belohlav, 1995; Besterfield et al., 1995; Bounds et al., 1994; Bright, 1993; Byrd, 2000; Porter and Tanner, 1996; Senge, 1994; Seymour, 1994b; Tuttle, 1994:26). Clearly, quality management is a complex idea that defies simple definition or description by just one model.

While any single perspective can be useful and may be capable of producing valuable insight, each by itself delivers only a fractional understanding of QM and the full implication of its purposes (Porter and Tanner, 1996:2). Taking nothing else into account each interpretation on its own accord is “incomplete, biased and potentially misleading” (Morgan, 1996:5). The big challenge facing quality thinkers, consultants, managers, writers, and other concerned parties is to blend these insights together to acquire a more complete understanding and subsequently, a viable plan for action (Morgan, 1996:352). From the standpoint of intervention, seeing quality through multiple lenses or frames (Harrison and Shirom, 1999; Morgan, 1996) fosters the kind of thinking needed to cultivate a sound, inclusive, integrative strategy to promote improvement and encourage operational excellence in virtually all facets of the organization (Belohlav, 1995; Easton, 1995; Mische, 2001).

<sup>27</sup> Nancy Warren, a behavioral scientist in the United States Navy, generally receives credit for coming up with the phrase “Total Quality Management” during a brainstorming session held in the summer of 1985 (Bounds et al., 1994; O’Banion, 1997; Schmidt and Finnigan, 1992; Walton, 1990). The way the story goes the Navy Personnel Research and Development Center (NPRDC), a military think tank, served as a key incubator for application of the Deming method in the public sector (see Walton, 1990:147-184). When it was time to come up with an implementation scheme and training plan, NPRDC needed a name for the “Deming stuff.” The group rejected the Japanese descriptor “Total Quality Control” because the word “control” sounded too Machiavellian. Moreover, there was also concern that the connotation of control was an inappropriate one in this situation



because the usual context for the term within the military milieu had to do with weapon systems, e.g., “command and control.” In any case, during one of the many meetings that the NPRDC held during 1985 to devise a corporate roll-out plan for quality, it occurred to participant Nancy Warren that what they were trying to do was manage quality—therefore, why not call the initiative “total quality management.” The name stuck and history was made. But, that’s not the end of the story. According to Evans and Lindsay (1999:118), TQM has since been renamed to Total Quality Leadership (TQL) within the Department of Defense since “leadership outranks management in military thought.”

<sup>28</sup> A jig is a device used to maintain mechanically the correct positional relationship between a piece of work and the tool or between parts of work during assembly.

<sup>29</sup> According to one version of the story [on Whitney’s contribution to the quality field],

Contracted by the American military in 1798 to produce 10,000 muskets in two years, [Whitney] devised a method of production based on the use of jigs which enabled him to employ unskilled labor to produce interchangeable parts for the first time ever. To demonstrate the quality of his muskets he delivered the first trial consignment to the government in broken-down form. He then selected components at random and assembled a perfectly functioning musket. In 1812 he received a further order for 15,000 muskets. Increased quality through reduced variation had, for the first time, been demonstrated on a commercially competitive sale, and to ultimate good effect—a repeat order! (Howard, 1992:65-66).

Other accounts suggest, however, that he was only “intermittently successful” and his career, “a string of startling claims and unreproducible results” (Hart and Bogan, 1992:4). In fact, Hart and Bogan (Ibid) submit that Whitney wasn’t even the first inventor to patent a machine for deseeding cotton!

Nevertheless, it is indisputable that Whitney mounted demonstrations for the government using hand-tooled parts that “somehow did interchange” (Hart and Bogan, 1992:4; McLaughlin, 1956:185-202) and that he won a competitive bid (Howard, 1992:66) to make rifles as a result.

<sup>30</sup> While Deming is perhaps best known for his work in developing a system of statistical quality control, his contributions go well beyond this achievement (Ross, 1995). This section briefly looks at his teachings over the course of his lifetime.

During the years, Deming’s philosophy evolved and changed, which is indicative of “his devotion to constant, never-ending learning” (Schultz, 1994:45). At the risk of disrupting the chronological flow of our QM evolutionary timeline, we examine Deming’s work as a whole, starting with the 1950s. His Fourteen Points, Seven Deadly Diseases, and Profound System of Knowledge are actually later developments (i.e., 1980s and 1990s).

The reader is advised to keep this in mind, since this is the approach we follow as we review the major accomplishments for each quality guru.

<sup>31</sup> Juran's trilogy embodies a cross-functional management approach to quality improvement where:

**Quality planning (QP)** is the activity of creating the products and processes necessary in meeting customers' needs. QP involves the following steps:

- Establish quality goals.
- Identify the customers that will be affected by the efforts to achieve the quality goals.
- Determine the customers' needs.
- Develop product features that address the customers' needs.
- Develop processes that can produce those product features.
- Establish process controls and disseminate the resulting plans to the operating personnel.

**Quality control (QC)** consist of the following steps

- Appraise actual quality performance.
- Compare actual performance to expected performance (i.e., quality goals).
- Act on the difference.

**Quality improvement (QI)** is the process of raising quality performance to unprecedented levels. QI consists of the following steps:

- Establish the infrastructure required in supporting quality improvement projects.
- Identify specific needs for improvement (QI projects).
- For each project assign a project team with clear responsibility to bring the project to fruition.

- Provide the resources, motivation, and training required by the teams to complete QI initiatives (Bounds et al., 1994:76-77; Juran, 1992:14-16).

<sup>32</sup> Quality Circles are small groups of volunteers from the same work area that engage in self- and mutual development activities for the purpose of company-wide improvement (Schultz, 1994).

<sup>33</sup> According to Bounds and company, some of the techniques typically used to improve equipment reliability and reduce failure rates included:

- *Failure mode and effect analysis*, a method to systematically review the ways in which a product could fail with the objective of proposing alternate designs.
- *Individual component analysis*, a means to analyze failures in key components and at the same time correct the weakest.
- *Redundancy*, the practice of using parallel systems for backup, in the event that components fail.
- *Monitoring of field failures*, with laboratory testing and analysis of failed parts (Bounds et al., 1994:58).

Two problems noted by Bounds et al as endemic to these approaches include misinterpretation of results and adding new forms of failure.

<sup>34</sup> Many authors attribute the emergence of a competitive environment between the United States and Japan (Sanderson, 1995:28) as the beginning of the QM movement. Japan's ability to make superior products for less cost than their counterparts in United States enabled the Japanese to chip away at American market dominance in any number of industries. According to Capezio and Morehouse (1993):

Japan's strategy was to attack at the low end of the market and build credibility from there. By entering markets at the low end, many Japanese companies generated the volume they needed in order to go after the high-end of the market later. When the Japanese went after the higher end of a market, they did so with the same strategy. They offered a superior product at a lower cost than their U.S. competitors.

A long list of U.S. industries have fallen prey to this strategy. From machine tools to automobiles, from cameras to diesel engines, from steel to VCRs, from electronics to advanced computer technology—Japan has been reclaiming its position in the world through a relentless commitment to quality (Capezio and Morehouse, 1993:61).

<sup>35</sup> TQM represents a mix of Japanese culture and American management theory, as Capezio and Morehouse (1993) explain:

The Japanese have contributed much from their culture to the statistical methods brought to them by Deming. ... William Ouchi's *Theory Z* (1981) details how the Japanese infused their own roots in developing Japanese management systems. Many of the most fundamental principles of TQM come from Japanese culture. Trust, long-term commitment, collaboration, emulation, reciprocity, subtlety and the discipline of incremental and continuous improvement are but a few of the foundation blocks in TQM that mirror Japanese culture.

Western management theories, such as Douglas McGregor's Theory Y, recognize the creativity and ingenuity of workers and encourage the development of work environments that stimulate and reward such individual contributions. It was the Japanese, however, who first understood that the contributions had to come from all workers at all levels and that the rewards had to be shared among all the contributors in the organization (Capezio and Morehouse, 1993:58).

<sup>36</sup> Bryd (2000) notes a kind of religiosity to the quality movement. He identifies three faiths—major schools of thought, each with its own theology, doctrine, prophets, scripture and so on, to guide and inspire organizations to the “nirvana of quality.” In accordance with this metaphor, Byrd depicts the three schools of quality thought as follows:

- *Fundamentalists*. These theorists offer organizations the “systematic blueprint for perfect righteousness.” According to the fundamentalists, organizations that follow their hallowed plan faithfully and exactly will attain “unequivocal and everlasting quality.” Deming is the most well renown of the fundamentalists and his 14 points, the indisputable scripture for his devotees.
- *Conservatives*. This group sees quality as a kind of moral code that is manifest in a set of universally applicable principles. Moreover, the principles are not inflexible prescriptions; instead they are guiding forces for the virtuous pilgrim organization to believe in and follow in the quest to find true quality. The most famed conservative is Juran. Juran's trilogy—quality planning, quality control, and quality improvement—is, for the Conservatives, the Word, guiding principles that arouse and inform management on behalf of quality. The sacred text for Juran and his disciples is *Juran on Planning for Quality* (Free Press, 1988).
- *Liberals*. These authors preach the Word of change via the development of new managerial attitudes and behavior, as opposed to the gospel of

mathematical and statistical methods. For the liberals, quality is a natural byproduct of appropriate thought and deed by managers. The best known and most fervent of the liberals is Crosby, who subscribes to five “absolutes of quality”:

1. Quality is conformance.
2. There is no such thing as a quality problem.
3. The economics of quality is a misnomer; it is always cheaper to do the job right the first time.
4. The cost of quality is the only valid performance metric.
5. Zero defects is the divine performance standard (Byrd, 2000:139-50).

On the whole, the common denominator for all three schools of thought is the conviction that:

“Quality is the Way, the Truth, and the Life, if you want to succeed in this competitive world.” The pursuit of quality thus becomes a never-ending quest to reach the corporate kingdom of greater and greater market share. Amen. (Byrd, 2000:149, amen added).

Byrd concludes that quality is a just cause, regardless of which cleric and teachings that an organization may chose to follow. However, there is an inherent danger that doctrinaire take the place of reason and good sense. Accordingly, he advises that organizations avoid the following hazards:

- Religiosity and piety as regards quality
- Religious zeal that accepts no criticism
- “Stained-glass” voices and holier-than-thou attitudes
- Values passed on via training packages rather than those that emerge under the guidance of senior management
- Taking oneself (or anyone or anything else) too seriously
- Self-righteousness
- Rip-off products hawked by quality apostles

- Devoting everyone's discretionary resources to a single cause.
- People that say "I believe" because it's the thing to do.
- Suppression of root problems to make things appear better than they are (Byrd, 2000:154-155).

## Chapter 7

### THE STRUCTURE THREAD

The design of an organization has major ramifications for its effectiveness and viability (Burns and Stalker, 1961). Today the trend is toward flatter, more horizontal, dispersed forms, as society seeks new organizing logics to cope with the challenges posed by the postmodern age<sup>1</sup> (Daft, 1998). Reputedly faster, smarter, and more nimble than the traditional paradigm (Charan, 1991), many hail networks as the flagship organizations for the 21<sup>st</sup> century (Chisholm, 1996). On the basis of this widely held belief, this chapter first situates the problem, and then juxtaposes the literatures on networks and learning organizations to see how these forms may enable constant improvement and more capable action in complex social systems. As shown in Figure 7-1, the *Structure Thread*, inasmuch as it addresses both the organization as a whole and its environs, maps to Senge's systems thinking discipline.

#### Unraveling the threads of the Learning Organization<sup>2</sup>

You Are Here	Conceptual Threads	Senge's Five Disciplines
	A. The Systems Thread	Systems Thinking
	B. The Human Relations Thread	Personal Mastery Team Learning
	C. The Culture Thread	Shared Vision Mental Models
	D. The Learning Thread	Personal Mastery Team Learning
	E. The Quality Thread	Systems Thinking Shared Vision Mental Models
⇒	F. The Structural Thread	Systems Thinking

Figure 7-1

### *Introduction: Situating Structure*

The structure of the learning organization—and especially its relationship to human agency<sup>3</sup>—is a topic that receives scant attention in the LO literature (Akella, 2003; Ashton, 2004; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Lee et al, 2004; Moingeon and Edmondson, 1996; Smith, 2001). The tendency of countless authors has been to focus instead on normative prescriptions and processual concerns divorced of their social, contextual, and/or structural countenances (Fenton and Pettigrew, 2000; Finger and Brand, 1999; James, 2003; Smith, 2001; Yang, Watkins, and Marsick, 2004), even though “structure cannot exist apart from the people who enact or interpret its dimensions”(Orlikowski and Robey, 1991: 147 as cited in Senge, 1998).

For scores of authors organizational structure is a given that is addressed or carried under the ambit of various other more tantalizing research concerns and theoretical perspectives (Aldrich, 1992; Clegg and Hardy, 1996; Daft, 1998; Donaldson, 1996), such as culture, knowledge-based views, change management, and globalization (Fenton and Pettigrew, 2000). Notwithstanding the import and lure of these topics and other such allied curiosities, an unintended consequence of not bringing structure more conspicuously to the fore of organizational studies is that the vital relationship between structure and agency remains a transparent matter (Orlikowski and Robey, 1991; Senge, 1998); one whose meaning is lost and erroneously relegated to a position of non-importance by inadvertence and omission.

But, *structure matters*. Moreover, it is far too consequential to take for granted. This is not to suggest that LO structures (e.g., teams and networks) matter more than LO



processes do (e.g., collaborative work, dialogue, and the effectuation of organizational learning). Rather, the point is that neither deserves primacy for there is an inextricable, reflexive correspondence between structure and process that renders the pair mutually dependent yet analytically distinct<sup>4</sup> (Archer, 1988; 1995; Bhaskar, 1993; Hay, 2001; Shilling, 1999; Weik, 2006; Willmott, 1997). That this relationship receives short shrift by countless LO and OL authors reflects an intellectual blind spot to the dual nature of structure as both a medium and outcome (Giddens, 1984; Weick, 1979).

Because structure and human agency “presuppose” one another (Sewell, 1992), social structures—as enacted by rules, practices, protocols, and routines—*both* condition human behavior and are also a condition of human behavior as people interact over time to produce, reproduce, and institutionalize codes of conduct (Giddens, 1984; van Fenema, 2005; Weick, 1979).<sup>5</sup> Wenger (1998; 2000) makes a similar argument about the Janus-like aspects of structure when he speaks of the dual nature of organizations as both designed institutions and emergent constellations of practice (Caldwell, 2005b). Stated in less esoteric terms, a useful interpretation for the duality of structure as noted by these authors is Senge’s (1998; 2001) proposal that “we create structure(s) and structure(s) create us.” This is an uncomplicated translation that aptly captures the recursive relationship of structures and human autonomy.

Still, despite the simple elegance of Senge’s pithy statement, the search for theoretical synthesis and practical efficacy has not met with much success (Caldwell, 2005b). Indeed, social scientists have been trying to resolve the structure–agency (S-A) “problematique” for at least two centuries (Hay, 2001)! But, irrespective of converging

efforts to bridge the gap between these ideas, consensus and theoretical integration remains today as elusive as ever.

For example, the link between structure and agency has become regular scholarly fare for many researchers within the organization studies field who draw on “new” institutional theory<sup>6</sup> as an explanatory framework; the essence of which Scott (2005) describes in the passage below.

Institutional theory attends to the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behavior. It inquires into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse. Although the ostensible subject is stability and order in social life, students of institutions must perforce attend not just to consensus and conformity but [also] to conflict and change in social structures (p. 2).

Nevertheless, despite its “long past and promising future” (Scott, 2005: 31), an institutional framework—new or otherwise—just like scores of other approaches in organization studies, suffers from a low degree of “theoretical institutionalization” (Clegg and Hardy, 1996: 15; Hirsch and Lounsbury, 1997; Scott, 2005; Tolbert and Zucker, 1996: 175; Westwood and Clegg, 2003).<sup>7</sup> It is ironic to note moreover that some institutionalists now ascribe more sway to the voluntarist perspective than to a deterministic view (Clegg and Hardy, 1996). Is it an oxymoron for a confirmed institutionalist to subscribe to a view that elevates human action over structure? Perhaps on some level it is. The more important matter however is this: by introducing S-A into its research agenda, the institutional theorist has thus broadened his or her scope; yet, by taking sides, i.e., opting for one view over another, the domain of institutional theory

inherits all the divisive baggage and controversy that goes along with a 200-year old debate. This point is significant because it portends the uncertainty and innate difficulty of the “structure-agency problematique” for all who undertake it.

According to Hay, most such efforts to resolve the conundrum of S-A have been largely in vain due to the attendant tangle of analytical separability and ontological co-dependence that typifies the tug between structure and agency, a position he elaborates on in the passage that follows.

... The issues of structure and agency ... cannot be separated and should not be ‘bracketed’. ... Though analytically separable, they are, I suggest, ontologically intertwined.

To appeal to the issue of structure and agency as a ‘problem’ with a potential ‘solution’ ... is to conflate the epistemological and the ontological. Claims as to the relative significance of structural and agential factors are founded on ontological assumptions as to the nature of a social and political reality. As such they simply cannot be adjudicated empirically. ... Consequently, *structure-agency it is not so much a problem as a language by which ontological differences between contending narratives might be registered.*

The closest we are likely to get, then, to ‘solutions’ to the agency-structure problematique are evolutionary cycles of fashion for particular ontological positions, the appeal of which may well reside in their ability to present themselves as ‘solutions’. In short, there are as many different solutions to the structure-agency problem(atique) as there are authors holding different ontological assumptions. The language of structure and agency provides a convenient means of registering such ontological differences in a systematic and coherent manner. It should not be taken to imply an empirical schema for adjudicating contending ontological claims. ... Whilst it strikes me as more useful to regard structures and agents as abstractions from a reality in which they are complexly and necessarily interlinked, this is, in the end, an ontological choice not a matter of empirical record (Hay, 2001).

Thus, for Colin Hay, the structure–agency problem as typically presented is one of mixing apples and oranges: that is to say, making either the “epistemological fallacy of

seeking empirical solutions to ontological questions”; or the “ontological fallacy of seeking ontological solutions to empirical questions.”<sup>8</sup> Hay also raises some question as to the value of the debate itself. While he refrains from calling the issue spurious, he asserts, “The agent–structure debate is important, [but] it is not *that* important.” Rather than take sides that privilege one position over another, he concludes it is more important to recognize that “neither [position] has an existence in isolation from the other—their existence is relational and genuinely dialectical.”

Alongside the issue of ontological affinity or preference that a particular researcher has for a given theoretical account (Hay, 2001; Hays, 1994; Pozzebon, 2004); Fleetwood (2005) points to the ubiquity of two related problems in organization studies, “ontological ambiguity and error”, which he describes as a lack of clarity, confusion and/or mistakenness vis-à-vis some conception of reality. Given that ontological approaches come in a variety of different flavors (Wikipedia, 2006e) –i.e., realism (the view that facts are out there just waiting to be discovered); empiricism (the view that we can observe the world and evaluate those observations with respect to facts); positivism (which gives attention to the observations themselves, focusing more on assertions about facts than to facts themselves); and postmodernism (which deems that because facts are fluid and hard to pin down, we should focus *only* on our observational claims) – Fleetwood’s position about the need for ontological correctness (or at least specificity) in organization studies is a valid one.<sup>9</sup> It is not hard to imagine how or why misunderstandings and widespread polarization (Gleeson and Knights, 2006; Knights, 1997; Walsh, 1998) has followed on the heels of differing contexts and orientations, especially when underlying beliefs and assumptions remain hidden from view, masked by

“imprecision, conceptual slippage and confusion” (Clegg and Hardy, 1996; Fleetwood, 2005: 198; Thompson, 1989).<sup>10</sup>

As an example of this, Caldwell (2005b: 85) cites “a plurality of conflicting ideals, paradigms and disciplinary self-images that are increasingly difficult to meld in any coherent manner,” thus leading to rigid ontological dualisms broadly described as “micro” and “macro” (Hay, 2001; Rosenbaum, 1996). According to Bohman (1991) these dichotomies are by themselves,

Incomplete and indeterminate in complementary ways: macro explanations require ‘micro-translations,’ and ‘micro-foundations’ require stable and enduring social contexts ... Both micro- and macro-level explanations must therefore be extended in the direction of the other, if they are to be explanations at all (p. 156)

Consequently, the gulf between theory and theory, and theory and practice remains far apart—an observation supported by the “paradigms wars” and other such “ideological conflicts” and “incommensurabilities” (Clegg and Hardy, 1996; Mir and Mir, 2002; Pfeffer, 1993; Reed, 1996; Weick, 1999) over ways to conceptualize and study organizations. This situation is no less apparent in the OL-LO literature; particularly as evidenced by the tensions between the two intellectual streams (see Chapter 5), an observed shortage of cumulative work (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Pawlowsky, 2001; Polito and Watson, 2002; Sessa and London, 2006; Smelser, 2001) and lest we forget, the rare occurrence of actual learning organizations in real-life.

If nothing else the quote by Bohman cited above is a reminder that “agency without structure is blind and structure without agency is empty” (Caldwell, 2005b: 109).

This has important ramifications for understanding the LO because it calls attention to the need to look at both the underlying structures of organizations as well as how their members evolve as they make sense of themselves and their environment (Weick, 1979; 1996).

By taking an “enacted systems view”<sup>11</sup> of the “architectonics”<sup>12</sup> of the aspiring learning organization, there is the potential to address continuous patterns of interdependency between structure and behavior, which is important given that the relationship between them can enhance or inhibit the learningfulness of the whole (Berends, Boersma, and Weggeman, 2003; Lane, 2001; Senge, 1998; 2001).

To eschew somewhat the problem of “theoretical conflation”<sup>13</sup> noted in some scholarly corridors (Barley and Tolbert, 1997; Hay, 2001; Hays, 1994; Rose and Scheepers, 2001; Shilling, 1999; Willmott, 1997), this paper acknowledges the transient and long-term temporal differences of human action and structure that ostensibly allow for their ontological separation (Archer, 1996 as cited in Rose and Scheepers, 2001: 221). At the same time, however, the arguments herein hold fast to an integrationist perspective and in doing so, assign equal priority to the dynamics and character of the relationship between structure and process, which together are key to comprehending and unlocking the promise of the learning organization.

Given that “structure and agency are [in effect] a duality that cannot be conceived of apart from one another” (Giddens, 1984; Ritzer and Goodman, 2004), theoretical extremes—be it on the side of “individualistic reductionism or collectivist determinism” (Reed, 1996: 46; Whittington, 1994)—obscure the generative interplay between social

systems and human actors (Shilling, 1999; Staber and Sydow, 2002; Thompson, 1999; Wikipedia, 2006d) and ultimately present us with a deficient impression of the whole. As such, this dissertation votes for a more embodied view (Shilling, 1999) of LOs and derives its “theoretical sustenance” (Willmott, 1997) in the contested intellectual space between both extremes; the place from which it moves towards a more relational, contextual and systemic understanding of social structures and human agency (Borgatti and Foster, 2003).

To this end, this chapter incorporates structure in its conceptualization of the learning organization idea. In particular, this chapter adopts an “enacted systems” (Senge, 2001)/“multi-contingency view” (Burton and Obel, 2004; Burton et al, 2006) of organizational design and proceeds from a network understanding of structure as the recurrent sets of relationships that describe a system (Donaldson, 1996).

Pursuant to this objective, this chapter forges its understanding of the relationship between LO structure and agency with the following agenda:

- Is structural research *really* passé?
- The lasting legacy of Weber’s bureaucracy
- Networks Notions and the Learning Organization
- Limitations
- Summary

By following this agenda we develop an appreciation of where the LO fits within the larger context of organization theory. More importantly, we get a sense how

organization structure relates to agency, and how these relationships serve as the *sine qua non* for learning processes and outcomes in learning organizations.

### *Is Structure Really Passé?*

There are any number of possible reasons for structure's seemingly invisible status in the LO literature. First and foremost, the theory and practice of organizations has changed substantially over the years, resulting in a diverse, contentious, fragmented intellectual landscape (Reed, 1992; 1996) in which LO studies reside. Different theoretical approaches and paradigms have emerged to challenge one another as the definitive statement on what constitutes organization studies (Clegg and Hardy, 1996; Pfeffer, 1982, 1993; Reed, 1992; 1996; Shafritz and Ott, 1996). Conflicting findings and disputes over key concepts and what count as data have pushed the field in many directions at once. In the absence of an "orthodox consensus" (Atkinson, 1971; Clegg and Hardy, 1996:2; Giddens, 1979; Reed, 1992: 1), sacrosanct assumptions about the core of knowledge are vulnerable and up for grabs, thus encouraging new forms of learning, research, participation, and practice to develop. As Clegg and Hardy (1996) duly note,

Gone is the certainty, if it ever existed, about what organizations are; gone too, is the certainty about how they should be studied, the place of the researcher, the role of methodology, the nature of theory. ... In observing organizations, we are beset with a moving target: questions concerning what *is* the organization exist today in ways not envisaged [forty] years ago (pp. 3, 11).

While this kind of change in the practices and perspectives of organizations is not inherently a bad thing, on balance a lot of worthy ideas and agendas may be set aside and forgotten (Olsen, 2006; Stern and Barley, 1996: 146) as researchers grapple with and



entertain a wide range of new, non-traditional, and otherwise sundry ways to understand organizational phenomena.

Reflecting on this historical juncture, Reed (1996: 32) submits that the field of organization theory/organization studies (OT/OS) has entered a phase of “revolutionary science” (Kuhn, 1962); a period in the field’s development for which its domain assumptions and accepted views are under constant critique and re-examination (Gouldner, 1971; Lakatos and Musgrave, 1970). Racked as such by internal conflict and disagreement over the sum and substance of its intellectual identity, theoretical conciliation within the OT/OS field has become next to impossible, and paradigmatic surplus the new norm (Clegg and Hardy, 1996; Hassard, 1990; Kuhn, 1962; Pfeffer, 1993; Reed, 1996; Willmott, 1993b). In short it may be said that the OT/OS field has crossed the threshold to the postmodern era, and such is the context in which we must consider the LO idea.

As a subset of the larger sphere of OT/OS, it is quite natural and reasonably predictable that the questions and different theoretical approaches that fuel the LO research agenda reflect the pluralistic attentions of the parent field. Of note, the cultural turn in contemporary OT/OS “owes much to the widening impact of postmodernist thinking within the field” (Reed, 1992: 11). Likewise, under the looming specter of postmodernity, the once accepted hegemony of contingency theory in OT/OS has come unraveled (Reed, 1992; 1996) to a great degree and in its place a proliferation of “small narratives” (Jones, 2003: 505) by other voices that defy the intellectual authority and imperialism of the past’s accepted views (Cannella and Paetzold, 1994; Clegg and Hardy,

1996). As a result, ways of understanding organization—and the LO in particular—have largely become matters of consumer choice (Hughes, 1992), convenience, and perceived recompense.

### Esoterica, Exotica and Reputational Renown

In light of this context and its flat rejection of the contingency perspective as reigning paradigm, structural research has generally declined in popularity; deposed from its former subject appeal by a plethora of other intellectual curiosities and evolving interests (Dunbar and Starbuck, 2006; Reed, 1992) imagined to yield higher career dividends and reputational renown (Aldrich, 1992; Donaldson, 1996; Mone and McKinley, 1993). As Donaldson (1996: 70) and others rather pejoratively submit, the returns are likely greater for “innovating a new paradigm than in persevering with an older [one].”<sup>14</sup> Yet despite the depreciative, cynical tone of this observation, these authors make a valid point vis-à-vis the field’s overall intellectual development, its prospects for cumulative research, and the study of organizational structure. The OT/OS research agenda is unavoidably political, a power struggle between incumbent themes and new approaches each vying for recognition in “academic space” (Clegg and Hardy, 1996). Thus, the tendency of the intellectual establishment to adopt an instrumental attitude toward their work as they chase what’s novel and unique (Fenton and Pettigrew, 2000) is a logical extension of politics as well as the practical realities that dictate the need to eat, publish, and achieve tenure. Because structural contingency theory is no longer “the only game in town” (Reed, 1992: 12), LO research is likewise predisposed to

the emerging “esoterica and exotica” (Clegg and Hardy, 1996) of the OT/OS field at large.

### Social Forces of Zeitgeist

Furthermore, scholarly pursuits do not develop in a vacuum and as a consequence reflect the social forces of *zeitgeist*<sup>15</sup> (Hunt and Dodge, 2001) or what is going on in the world at the time (Shafritz and Ott, 1996:2), which leads us to factor number two regarding the absentee status of structure in the LO literature. Organization theories, like prevailing tastes in clothing, vary over time (Abrahamson, 1996; Nickerson and Zenger, 2002). Throughout the development of the field, happenings within the surrounding environment have substantially influenced the development of organization theory. This is an important point inasmuch as it underscores the topical nature of organizational topics. While the spread and legitimization of many management ideas may come from publications in the popular and practitioner press (Barley et al, 1988; Mazza, 1998; Spell, 2001), members of the academy are not immune to these developments (Hunt and Dodge, 2001). Fashionable trends in organizations and the surrounding environment are often a source of inspiration and drive the study agenda (Brady, 1997; Hunt and Dodge, 2001; Kieser, 1994).

### Process Predilections

Third, growing interest in the dynamics of change and how it proceeds (Reed, 1992) has given rise to a variety of process-oriented research initiatives (Fenton and Pettigrew, 2000) for which organizational culture is a common theme. And, while

process has implications for structure and vice versa, only a few researchers have attempted to address the mutual interdependence between the two (Shilling, 1999; Staber and Sydow, 2002; Thompson, 1999; Wikipedia, 2006d). In fact, Scheidegger (1997: 3) reports a growing consensus in the management literature that argues “actual business processes should replace the rigid, traditional organizational structure [in order] to make corporations more flexible and adaptable to [their] continuously changing circumstances.” Thus, once again the “spiritual union”<sup>16</sup> between structure and agency finds itself in a state of divorce, drawn asunder by a one-sided preoccupation with organizational process to the exclusion of its structural partner.

Within the learning organization literature, the predilection for process is no less apparent. For example, a universal starting point is the idea that to master change organizations must be structured to support learning; the need to develop the right culture is seen as both the problem and the answer. Yet, despite the popularity and pervasiveness of this assertion, most articles fail to address *the how* –to wit, the manner in which structure relates to learning, organizational roles, culture, and outcomes<sup>17</sup> (Akella, 2003; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Sessa and London, 2006; Smith, 2001). As a consequence our knowledge is incomplete. The failure to address the connective tissue between structure and process leaves us in the end with “neither a very good understanding of the word organization nor of the word learning” (Schein, 1996).

### Static Images of Structure

Fourth, static images of structure have tended to undermine its theoretical

importance as well as obscure its dynamic nature thereby persuading many LO authors to focus on process instead (Scheidegger, 1997; Tomasko, 1993). Inasmuch as the organization chart is a visible depiction of organization structure, i.e., a diagrammatic representation of hierarchically arranged functions, job titles, lines of authority, et cetera (Daft, 1998; Jackson and Morgan, 1982; Krokosz-Krynke, 1998; Tomasko, 1993), it is tantamount to structure in the minds of most people as nearly everyone tends to equate the two. Indeed, the mere mention of organizational structure conjures up visions of the fixed little boxes and lines of the organization diagram, an image that is congruent with the traditional perspective of organization posited by Weber (1946) and other classical theorists, as a “durable, lasting arrangement” (Schmidt, 1994: 13 as cited in Scheidegger, 1997: 3) of “work roles and administrative mechanisms” (Child, 1972; Jackson and Morgan, 1982: 81; Krokosz-Krynke, 1998: 2). Yet notwithstanding its ubiquity, this rigid and limited perception of organization does not tell the whole story. The organization chart is a simplification device that yields an incomplete view of many important aspects of organization, such as that of human behavior and relations between actors.

For instance, nearly seventy years ago Barnard (1938) documented the existence of informal organizations and the vital roles they serve for their enterprises.<sup>18</sup> While an organization chart may exhibit who reports to whom, it does not necessarily reveal who talks to whom or even how work *really* gets accomplished (Foster and Falkowski, 1999: 53); a drawback and veritable blind spot that shrouds the unofficial patterns of interaction that energize the informal organization as well as the learning and non-learning that occurs within the white spaces of the graphical rendering. As Foster and Falkowski (1999) duly submit:

Informal networks of friends and colleagues gathering in the cafeteria, after work or on the Internet are an increasingly important part of knowledge exchange in an organization. These informal communication networks may be invisible to the organization, which makes it hard for management to recognize and leverage the expertise they contain. Working with, not against, these informal communities and the relationships which constitute them is the key to building a learning organization (p. 53).

In addition to the hidden aspects of organization concealed inside the white spaces of the organization chart, Tomasko (1993) notes another problem, the impermanence of these so-called “durable, lasting arrangements” (Schmidt, 1994; Scheidegger, 1997).

Functionality can easily become outdated. This is a problem common to many organization structures. A need may go away, a problem gets solved, or a constraint disappears, but the past often lives on in many organization charts (Tomasko, 1993:18).

Along these same lines, Sankar (2003) argues that the classical perspective suffers from a number of “information pathologies” (e.g., filtration, distortion, overload, and lags in feedback) that render the view out of touch with current realities and therefore unable to cope effectively with stressors from the surrounding environment (De Greene, 1982; Goh and Richards, 1997; Klir, 1991; Morgan, 1996; Thompson, 1967). Characteristically, the underlying static image of structure that invigorates the classical perspective as well as typifies scores of existing mental schemas rests on unrealistic, closed-system assumptions about organizations (Dessler, 1980; Henry, 1989; Kast and Rosenzweig, 1985; Thompson, 1967) that fail to consider both its most important internal aspects as well as the influence of the universe in which it dwells and functions. Due to this inadequacy many contemporary researchers within the OT/OS field choose to give

organizational structure little more than a “ceremonial nod” (Lounsbury and Carberry, 2005); if they even discuss it at all.

As organizations seek ways to become more adaptable, flexible, and learningful in response to the shifting demands they face, researchers have found the traditional notion of structure as portrayed by the organization chart to be wanting because it does not amply reflect the emerging nature of organization (Goh and Richards, 1997; Hatch, 1999; Sankar, 2003; Tomasko, 1993). For those working and writing under the rubric of the LO, this sentiment is especially true and on point. The usual conception of organizational structure no longer feels tenable or appropos inasmuch as it is descriptively, theoretically, and analytically (Hatch, 1999) mired in the paradox of contradiction, thanks to the fixed nature of structure and the dynamic disposition of learning (Geppert, 2000; Weick and Westley, 1996).

By way of summary, Hatch (1999) eloquently enumerates some of the shortcomings of the inveterate, static view of organizational structure as follows:

[T]raditional understandings of organizational structure are breaking down. At first, this breakdown was described in terms of the organization chart; relationships were too multidimensional to be represented by drawing them in a two-dimensional frame, or they changed so frequently that making a chart seemed pointless. When old structural notions collapsed further, this change was communicated with terms such as outsourcing, de-layering, de-differentiation and re-engineering. Now, concepts such as networks and virtual organizations are challenging traditional notions of organization itself.

... When a concept such as organizational structure no longer suits our descriptive or analytical purposes (e.g., because it is too static to help us understand organizations described by terms such as ‘adaptable’, ‘flexible’ and ‘virtual’), it is generally acceptable to replace it with another, better

formulated concept. The trouble is, for the time being anyway, nothing better has come along. (Hatch, 1999: 75).

As we learn from Professor Hatch in the excerpt shown above, traditional understandings of structure still loom large in organization theory (Greenwood and Lawrence, 2005; Lounsbury and Carberry, 2005; Taylor, 2001; Walton, 2005) and in actual practice (Kast and Rosenzweig, 1985) too, despite known defects and the emergence of rival paradigms.

Genetically imprinted as it were on the collective psyche of the OT/OS field, the contributions of the classical theorists, and especially those of Max Weber (1946) are an integral part of the intellectual foundation of organization theory. Consciously and unconsciously (Kast and Rosenzweig, 1985), these founding ideas remain “an omnipresent guiding force” and “fount of inspiration” for many scholars (Lounsbury and Carberry, 2005: 501; Stern and Barley, 1996) within the OT/OS field—if only as a point of departure for the presentation of new theory or contrary ideas (Henry, 1989; Heugens, 2005; Jacques, 2005; Lewin and Stephens, 1993; Mohrman, 2001), such as the model of learning organization being entertained within the pages of this dissertation.

Following then from this precedent there is much value to be had in looking at organizational structure through a Weberian lens, especially given that the LO is most often understood as the antithesis of the traditional Weberian model of bureaucratic organization (Cunha, 2002; Geppert, 2000; Senge, 1990; Tan and Heracleous, 2001).<sup>19</sup> On that account next we consider the core aspects of Weber’s (1946) bureaucracy and the lasting legacy of this theoretical tradition for organization design, elements which



together serve as “conceptual anchor” (Jacques, 2005) and point of departure for the subsequent discussion on networks and the LO.

*The Lasting Legacy of Weber’s Bureaucracy*

Weber’s (1946) bureaucratic model has had a profound influence on the advance of organization theory and practice (Greenwood and Lawrence, 2005; Henry, 1989; Walton, 2005). A number of authors (e.g., Burrell, 1999; Clegg and Hardy, 1999; Fligstein, in press; and Scott, 1987) effectively credit Weber’s work as central to the emergence of the OT/OS topic domain (Westwood and Clegg, 2003:3), if not as the historic and defining moment of the field’s genesis. Indeed, Scott (1987) submits that the translation of Weber’s treatise on bureaucracy from its original German into English marks the birth date of organization studies as a distinct area of academic endeavor—at least within the sphere of sociology, as he recounts in the passage exhibited below.

[T]he emergence of the field of organizations may be roughly dated from the translation into English of Weber’s ... [analysis of] bureaucracy. Shortly after [this work] became accessible to American sociologists, Robert K. Merton and his students at Columbia University attempted to outline the boundaries of this new field of inquiry by compiling theoretical and empirical materials dealing with various aspects of organizations (Merton et al., 1952). Equally important, a series of pathbreaking and influential case studies of diverse types of organizations was launched under Merton’s influence, including an examination of the Tennessee Valley Authority (Selznick, 1949), a gypsum mine and factory (Gouldner, 1954), a state employment agency and a federal law-enforcement agency (Blau, 1955), and a union (Lipset, Trow, and Coleman, 1956). *For the first time, sociologists were engaged in the development and empirical testing of generalizations dealing with the structure and functioning of organizations viewed as organizations* (Scott, 1987: 8; *my own emphasis added.*)

Arguably, Scott's is neither the only perspective nor is it the final statement on the events leading up to the parturition of the OT/OS field inasmuch as his synopsis omits some earlier contributions also of import found in other chronologies.<sup>20</sup> By Scott's (1987:8) own admission, "it is impossible to determine with precision the moment of [the OT/OS field's] appearance." As such, the more important and certainly more desired insight to glean from this discussion comes from the dual understanding that: (1) Weber's work is an "enduring part of modern organization theory" (Walton, 2005: 569); and (2) the bureaucratic model remains a dominant form of organization (Lewin and Stephens, 1993) even today as the twenty-first century steadily reveals itself.

In line with this second point, some organizational pundits –i.e., principally those within the sphere of public management—predict, moreover, that bureaucracy will forever be a part of the organizational landscape, especially in the public sector, because it is the form best suited for good administration in a representative democracy (Aucoin, 1997; Dahl and Lindblom, 1953: 511; Du Gay, 2000; Goodsell, 1983; Meier, 1997; and Peters and Pierre, 2003, each as cited in Olsen, 2006). While further explication of their arguments is beyond the scope of this paper, the remarks of one such prognosticator, Johan Olsen (2006), are instructive and germane with respect to the role and lasting relevance of Weber's bureaucratic model, both for public administration and for the OT/OS field as well. According to Olsen,

The argument is not that bureaucratic organization is a panacea and the answer to all challenges of public administration. Public administrations face different challenges, command different resources and are embedded in different political and administrative traditions. Bureaucracy, therefore, is not *the* way to organize public administration, for all kinds of tasks and under all circumstances. Bureaucratic organization is part of a repertoire

of overlapping, supplementary and competing forms co-existing in contemporary democracies, and so are market-organization and network-organization. ...

Rediscovering Weber's analysis of bureaucratic organization enriches our understanding of such questions and of public administration in general. The argument is not that Weber always provides authoritative answers. Much has to be learnt about the mechanisms by which public administration approaches the ideal-type bureaucracy, what causes the emergence, growth and decline of bureaucratic organization, and the implications of such changes. *Nevertheless, Weber calls attention to important issues and dilemmas and offers stimulating lines of thought* (Olsen, 2006; *my own emphasis added.*)

Given the rich treasure trove of provocative and compelling ideas bequeath to us by Weber, a recent symposium edition of *Organization Studies* published in 2005 looked at his contributions under the quizzing glass of contemporary concerns. By and large the contributors to this special issue noted a sharp decline in "Weberian-inspired research," which they attributed to the attending economic, social, and technological conditions of the prevailing postmodern age (Greenwood and Lawrence, 2005; Lounsbury and Carberry, 2005: 501). But, notwithstanding the waning engagement with Weber's work they so discerned, the authors conveyed a current and pressing need to look at the dynamics of new forms of organizing logic vis-à-vis bureaucratic forms of control, in order that the OT/OS field build a more solid bridge between past and present knowledge as well as gain an understanding of these new forms in more comprehensive terms (Greenwood and Lawrence, 2005; Heugens, 2005; Lounsbury and Carberry, 2005; Walton, 2005). Heeding this call for action, a distilled description of Weber's core ideas about bureaucracy ensues in the subsection below.

## Weber's Core Ideas

The bureaucratic model of organization emerged in response to the managerial challenges of the industrial age (Alkadry and Nyhan, 2005; Beniger, 1990; Kast and Rosenzweig, 1985; Mee, 2006; Yoo et al, 2006). Writing during the 1920s, Weber observed the proliferation of large-scale organizations and recognized the need for a more formalized set of procedures for administrators to follow (Dessler, 1980: 25); that is to say, a system of administration that emphasized clear and consistent rules, a hierarchy of authority, and well-defined position descriptions (Kast and Rosenzweig, 1985; Rainey, 1997). In line with his observations, Weber adopted the notion of an “ideal type” or “pure form” of organization, which he employed as a methodology to describe and delineate the dimensions of bureaucracy<sup>21</sup> (Dessler, 1980:25; Weber, 1946: 34).

For Weber, the bureaucratic ideal type represented a model of organization with certain structural characteristics and norms, which made it technically superior to any other form of organization (Daft, 1998; Dessler, 1980; Henry, 1989; Kast and Rosenzweig, 1985).

The fully developed bureaucratic mechanisms compares with other organizations exactly as does the machine with non-mechanical modes of production ... precision, speed, unambiguity, continuity, discretion, unity, ... these are raised to the optimum point in a strictly bureaucratic administration (Weber, 1946: 34 as cited Dessler, 1980: 26).

According to Kast and Rosenzweig (1985), Weber's discussions of the bureaucratic machine were part of a natural progression from broader considerations of historical, economic, and social events of the day; namely, the effects of capitalism, industrialization, and rationalization taking place within the “occidental world” at the

time leading up to the onset and spread of complex organizations (Alkadry and Nyhan, 2005; Beck and Kieser, 2003: 793; Beniger, 1990). On the basis of his analysis, Weber came to realize that the “codified rules, predictable relationships, and clear job descriptions” of the bureaucratic form could help organizations at that time keep pace with the new cadence of the day by affording increased productivity and output to meet the growing materialistic needs of society (Dessler, 1980: 26; Kast and Rosenzweig, 1985:74).

Notwithstanding its current derogatory undertones of red tape, officiousness, and inefficiency (Beck, and Kieser, 2003; Courpasson, 2003; Du Gay, 2000; Jain, 2004; Olsen, 2006; Pugh, 1966), Weber (1946) employed the term “bureaucracy” as a descriptor for any large-scale formal organization with the following structural attributes: a well-defined hierarchy of authority; clear division of work; a system of impartial rules and regulations; full-time, technically qualified staff; promotions based on merit and skill; and impersonal relations between career specialists and the clientele they serve (Daft, 1998: 106; Henry, 1989: 54; Walton, 2005: 569).

In addition, Weber’s (1946) theory of bureaucracy stressed the relative merits of an administrative structure based on rational-legal authority<sup>22</sup> –i.e., the right to exercise authority based on position—as the grounds for governing activities in organizations (Fligstein, in press; Kast and Rosenzweig, 1985).

When rational-legal authority is the underpinning architectural and operative logic of organization, it takes the form of a hierarchical structure—a pyramid so to speak—such that each position entails explicitly defined job duties and powers (Kast and

Rosenzweig, 1985) for which execution rests on objectivity and the use of facts (Alkadry and Nyhan, 2005; Scott, 1987; Stone, 1997). Thus, within this theoretical tradition,

[Formal] organizations are conceived as instruments for achieving specific goals, developing administrative mechanisms for maintaining their organization and coordinating their required activities (Blau and Scott 1962 as cited in Walton, 2005: 569).

On balance Weber was “largely positive about bureaucracy” (Jain, 2004) and its capacity to foster efficiency; but he also gave warning about the dire consequences of bureaucracies “gone wild,” to borrow a phrase from the popular vernacular. Weber worried that rational systems often have irrational outcomes. For example, on the one hand he saw bureaucracy and its relentless quest for “performativity”<sup>23</sup> (Lyotard, 1984) as a threat to personal liberties—to wit, an inescapable “iron cage”<sup>24</sup> as it were (Aron, 1999; Beck and Kieser, 2003; Coser, 2003; Elwell, 1996; Greenwood and Lawrence, 2005; Henry, 1989; Morgan, 1996; Weber, 1946), with a tendency to impose excessive controls on society (Jain 2004). On the other hand, he also felt that the technical superiority and procedural rationality of this ideal type of organization made it both necessary and the most efficient means of organizing (Daft, 1998; Jain 2004; Olsen, 2006) to enable and ensure that,

[The] business of administration ... be discharged precisely, unambiguously, and with as much speed as possible” (Weber, 1946: 34).

In addition, Weber bemoaned the potential for bureaucracies to amass too much power, essentially to become an end unto themselves rather than an efficient means to serve the people (Alkadry and Nyhan, 2005; Jain, 2004) they are supposed to serve. At the same time though, he also regarded bureaucracy as a “technology of social equity”

and fairness; one in which officials are held accountable to explicit responsibilities and unequivocal standards of performance (Lee, 1988: 87; Olsen, 2006). Thus, the moral of the story is this: there comes a point of diminishing relative advantage to the bureaucratic model and its canon of rationality when left unchecked and to its own devices.

In sum, the process of bureaucratization represents a turn from organizational management based on the interests and charisma of specific individuals, to one based on documented rules and procedures (Lee, 1988: 89). On many levels bureaucracy is the administrative equivalent to Taylor's (1911) notion of "scientific management" for physical work (Lee, 1988: 90), given its impersonal, mechanical character. Weber viewed "bureaucratic organization [as an] attempt to subdue human affairs to the rule of reason— [that is] to make it possible to conduct the business of the organization 'according to calculable rules'" (Borgatti, 2001). Hence, for Weber, the terms "bureaucracy" and "rationality" were inseparable from one another; and "just as the machines of the Industrial Revolution were the rational products of mechanical engineering, bureaucracy was likewise the rational product of social engineering" (Borgatti, 2001).

Nevertheless, people are not machines (Borgatti, 2001) and they have their own ideas and agendas, which need not coincide with the formal goals of the organization (Selznick, 1948; Shafritz and Ott, 1987). And, by the same token, the other extreme is also possible, whereby "rational" behavior reveals itself as undue adherence to rules and prescribed tasks, resulting in perverse patterns of performance that likewise detract from the attainment of an organization's goals (Alkadry and Nyhan, 2005; Bozeman and

Rainey, 1998; Caiden, 1971; Foster and Jones, 1978; Merton, 1940; Scott, 1987; Thompson, 1961: 152, 153).

In light of the fact that Weber conceptualized rationality as a function of bureaucratic structure rather than of the individual bureaucrat (Olsen, 2006; Scott, 1987:49), there is little room for common sense or extemporaneous logic because people in bureaucracies are supposed to act as automatons and do what is à priori defined (Autier, 2001; Thompson, 1969). Thus, rationality as employed by Weber has a very narrow scope of meaning inasmuch as it refers *not* to the selection of goals based on some sort of judicious decision criteria but strictly to the implementation of predetermined goals with maximum efficiency (Mannheim, 1950 as cited in Scott, 1987). This distinction is an important one for as Scott (1987:31) points out, “it is perfectly possible to pursue ... foolish goals by rational means.”

For example, the Nazi machine, and its objective to eradicate Europe’s Jewish population illustrates quite poignantly how an utterly insane, psychotic goal may be rationally pursued, with impersonal, technical, rule-abiding efficiency (Arendt, 1963 as cited in Scott, 1987). Given that Hitler’s functionaries took the goal as given and worked faithfully and without question to resolutely bring it about, the means of extermination was completely rational even though the objective was totally irrational. Hence, in the absence of the discretionary power to think and act, “Weberian bureaucracy [often] runs amuck” (Bozeman and Rainey, 1998:168), giving rise to paradoxical outcomes. Because means matter more than ends,



Rational behavior often consists in turning off one's mind and one's critical intellectual judgment and blindly conforming to the performance program specified by the job description [no matter what] (Scott, 1987:50).

When procedural compliance supersedes everything else—even doing the job correctly (Bozeman and Rainey, 1998; March and Simon, 1958) –organization design, however rational it may be, cannot surmount the non-rational aspects of organizational behavior (Selznick, 1948; Shafritz and Ott, 1987; Weiss, 1983).

With this idea in mind, the section that follows this one reviews some of the criticisms leveled against Weber's bureaucratic model, for therein lies the intellectual impetus for the emergence of rival ideas about organizations such as networks and the LO paradigm; perspectives which both significantly challenge and stand diametrically opposed to the closed-system, mechanistic assumptions of Weber's ideal type.

#### Criticisms of the Bureaucratic Model

Despite Weber's foundational impact on the development of OT/OS field (Lounsbury and Carberry, 2005), the literature is rife with more criticism than praise for the bureaucratic model of organization and its precepts (Autier, 2001; Courpasson, 2003; Daft, 1998; Jain, 2004; Olsen, 2006; Weiss, 1983; Walton, 2005). While there are some apologists who suggest that it is time to “rediscover bureaucracy” (e.g., Courpasson, 2003; Goodsell, 1983; Olsen, 2006), countless other scholars cite a laundry list of shortcomings associated with both the bureaucratic form of organization itself as well as the methodology Weber used to analyze it. Among the problems that critics regularly note are:

1. The dysfunctional consequences of bureaucracy, such as goal displacement, over-conformity, under-performance, maladaptive learning, and the “organization man” experience (Alkadry and Nyhan, 2005; Bendix, 1956; Fenton and Pettigrew, 2000; Gouldner, 1954; March and Simon, 1958; Merton, 1940; Scott, 1987; Selznick, 1949; Whyte, 1956);
2. A general lack of consistent findings and cumulative empirical support (Dessler, 1980; Meyer, 1979; Rainey, 1997; Tolbert and Zucker, 1996);
3. The inherent rigidity of the bureaucratic form and its incapacity for learning and innovation (Autier, 2001; Burns and Stalker, 1961; Crozier, 1964; Galbraith, 1987; Senge, 1990; Thompson, 1969);
4. The inadequacy of the ideal type as a methodology for analysis (Fenton and Pettigrew, 2000; Friedrich, 1952; Henry, 1989);
5. Weber’s closed-system assumptions and his failure to consider the effects of environmental forces (Daft, 1998; Kast and Rosenzweig, 1985; Lawrence and Lorsch, 1969; Thompson, 1967; Weiss, 1983);
6. The potential for accretion, misappropriation, misuse and/or abuse of power (Alkadry and Nyhan, 2005; Blau, 1956; Downs, 1967; Ijeoma, 2002; Jain, 2004; Pfiffner and Presthus, 1967);
7. The need to reformulate the elements of bureaucracy as set down by Weber into a set of theoretically testable hypotheses (Blau, 1956; Fenton and Pettigrew, 2000; Friedrich, 1950; Pugh et al, 1963; Stinchcombe, 1959);
8. The notion of rationality as a function of structure as opposed to the individual is ill-conceived and leads to irrational outcomes (Autier, 2001; Bozeman and Rainey, 1998; Coleman, 1990; Kieser 1987; March and Simon, 1958; Olsen, 2006; Scott, 1987; Selznick, 1948; Shafritz and Ott, 1987; Thompson, 1969; Weiss, 1983);
9. Weber disregarded the behavioral aspects of what really happens in organizations—namely, the conflicts, the cliques, and the circumvention of rules and the chain of command (Borgatti, 2001; Jain, 2004; Weiss, 1983); and
10. The model’s manipulative, mechanistic, and anti-humanist overtones (Bennis, 1959; Borgatti, 2001; Henry, 1989; Hummel, 1994; Lee, 1988; Scott, 1987; Weiss, 1983).

Alongside these problems it is interesting to note the diverse range of referents (Autier, 2001) that critics have suggested for bureaucracy, calling attention to various aspects of its functioning and dysfunctioning, core values and management. Among the more interesting appellatives used are descriptors such as “mechanistic” (Burns and Stalker, 1961), “monocratic” (Thompson, 1969), “rational” (Alkadry and Nyhan, 2005; Coleman, 1990; Scott, 1987; Selznick, 1948), and “deontic” (Lee, 1988); labels that hint at the latent, unintended consequences of a machine-like system of administration based on impersonal rules and regulations, professing efficiency as its premier goal and *raison d'être*. More importantly, these perspectives and countless others point to the usefulness of Weber’s ideas as “an established point of reference and departure” (Alkadry and Nyhan, 2005; Courpasson, 2003:2; Dessler, 1980; Hall, 1963; Kast and Rosenzweig, 1985) in their discussions of organizational effectiveness. Indeed, Weber’s ideal type has provided the theoretical framework for a good deal of subsequent research on complex organizations, much of which addresses behavioral factors and other such gaps that Weber did not consider (Weiss, 1983).

Much has been written about the stunning quantum change that has taken place during the latter part of the twentieth century and how these trends have profoundly altered the world (Bell, 1973; Toffler, 1970). Reflecting this concern, more recent criticism of the bureaucratic form centers on the apparent asymmetry between Industrial Age organizing logic and today’s postmodern demands (Daft, 1998; Lewin and Stephens, 1993). Authors note the need for new and different organizational forms—i.e., new ideal types as it were—to cope with current complexities and pressures. Or, as Schön (1973) has stated:

[We] must invent and develop institutions which are 'learning systems', that is to say, systems capable of bringing about their own continuing transformation (Schön, 1973: 28).

Generally speaking, an organization's context has a major influence on its structure. Organizational design and practices reflect the changing norms, values, mores, conditions, and beliefs of society at a particular time in history (Dessler, 1980; Kast and Rosenzweig, 1985; Toffler, 1970). To this point Alvin Toffler (1970) has likewise noted, "each age produces a form of organization appropriate to its own tempo." Recalling that the bureaucratic ideal-type emerged in response to the managerial challenges of the industrial era (Kast and Rosenzweig, 1985; Mee, 1963; Yoo et al, 2006), the bureaucratic form was ideally suited. Weber envisaged the bureaucratic form as issuing from the demands of the environment to address the need for effective administration of large, complex organizations in a capitalist society. However, as modernity moves into alignment with the requirements of present realities, the way in which we think about organization design is also evolving. Just like Yogi Berra wittily suggests, "The future ain't what it used to be" (Lewin and Stephens, 1993:393).

By way of summary and segue, Table 7-1 reflects the paradigm shift (Kuhn, 1962) from modern bureaucracy to a postmodern organization paradigm (Bergquist, 1993; Daft, 1998) as new evidence refutes existing ideas and gives rise to new views of reality.

**Table 7-1**  
**Modern/Bureaucratic versus Postmodern Organization Paradigms**

<b>Contextual Variables</b>	<b>Modern/Bureaucratic</b>	<b>Postmodern/Anti-bureaucratic</b>
Environment	Stable/Irrelevant	Turbulent
Form of capital	Money, buildings, machines	Information, knowledge
Technology	Routine and controlling	Non-routine and enabling
Size	Large	Small to moderate
Goals	Growth, efficiency	Learning, effectiveness
Culture	Employees taken for granted	Employees empowered
<b>Organizational Outcomes</b>	<b>Modern/Bureaucratic</b>	<b>Postmodern/Anti-bureaucratic</b>
Structure	Rigid and centralized, distinct boundaries	Flexible, decentralized, networks, diffuse boundaries
Leadership	Autocratic	Servant leadership
Communication	Formal, written	Informal, oral, electronic
Control	Bureaucratic	Decentralized, self-control
Decision-making	Managers	Everyone
Guiding principles	Patriarchal	Egalitarian

Source: Daft, 1998:15

*Network Notions and the Learning Organization*

In today's knowledge economy<sup>25</sup> (Neef, 1998), where connections and collaboration add value (Atkinson and Court, 1998; Kanter, 1995; Savage, 1996; Skyrme, 1999), network structures are fast growing to be a dominant form of organization (Chisholm, 1996; Helgesen, 1995; Limerick and Cunnington, 1993; Lipnack and Stamps, 1987). Commensurate with its increasing presence and importance, a rich and varied literature has emerged to explain the *whys* and *wherefores* of network configurations and processes. Though once an interesting and esoteric tangent to mainstream organization theory, network research has in its own right attained mainstream status and respect (Lipnack and Stamps, 1994; Nohria, 1992: 2; Wellman, 1988).

Analyses span a wide range of issues. Rival theories abound, as do competing methods of study and topical interests (Alstyne, 1997; Baker, 1992; Ebers, 1997). Whereas academics seek to identify the characteristics, properties, and effects of network organizations, managers want to know how to create networks for the dual purposes of bettering their careers and improving the effectiveness of their organizations (Baker, 1992; Kanter and Eccles, 1992; Nohria, 1992). Of note, prolific areas of writing endeavor include themes such as the contingencies of network formation, descriptions of key features, relationship building, and discussions on how networks foster flexibility, create wealth, and sustain survival in the face of constant flux (e.g., for some representative pieces see Alter and Hage, 1993; Auster, 1994; Bennis and Biederman, 1997; Bleecker, 1994; Child and Faulkner, 1998; Chisholm, 1996; 1997a; 1998; Cravens et al., 1994; Ebers, 1997:5; Grandori and Soda, 1995; Hinterhuber and Levin, 1994; Mizruchi and Galaskiewicz, 1993; Salancik, 1995).<sup>26</sup>

According to Powell (1990), the network form has captivated researchers because of the failure<sup>27</sup> of vertically integrated, hierarchically arranged structures (i.e., bureaucracy) to address the complex problems facing organizations today. Although pundits are generally careful not to overstate the case for network organization, many of them espouse networks as a viable and compelling way to confront the impotence of the traditional organizational paradigm to cope with the intricacies of an ever-changing environment (Alter and Hage, 1993; Bennis and Biederman, 1997; Bleecker, 1994; Child and Faulkner, 1998; Chisholm, 1996; 1997a; 1998; Cravens et al., 1994; Ebers, 1997; Hinterhuber and Levin, 1994; Peters, 1992; Salancik, 1995)<sup>28</sup>. The successful organization of the future, they predict, will consist of webs of self-managed,

semipermanent learning teams that rapidly reconfigure to adapt to opportunity and change (Jarvenpaa and Ives, 1994; Peters, 1992; Symon, 2000). The remarks of Colin Hastings summarize well the case made by proponents of network organizations.

No longer can we rely on the false comfort of the neat and tidy relationships between functional and hierarchical roles displayed on an organization chart, because this has shown itself to be too rigid, too slow and insufficiently innovative. When we start instead seeing an organization as a constant changing kaleidoscope of relationships between people, we begin to get a better flavour of what might be involved (Hastings, 1993: 6-7).

### *Problems of Language and Meaning*

Yet persistent “open questions” (Chisholm, 1996: 216) and “semantic confusion” (Hastings, 1993: 12) has tended to confound the full meaning of “what might be involved,” despite the observable efficacy of networks to address the chronic environmental uncertainties and ambiguities that all organizations now face (Burns and Stalker, 1961; Child, 1987; Miles and Snow, 1986). To some extent intellectual development on the network form has not kept pace with either its budding ubiquity or the widely held opinion that it is the flagship organization for 21<sup>st</sup> century society (Chisholm, 1996). The popularity of the network concept in print and in practice has propagated a profuse “terminological jungle” (Burt, 1982; Nohria, 1992: 3) that at times bedevils communication and indeed hinders the emergence of a coherent knowledge domain (Ebers, 1997; Hastings, 1993; Kanter and Eccles, 1992). The construct, though 50 years old or more<sup>29</sup> (Nohria, 1992) is still at a formative stage in its conceptual development (Chisholm, 1996), with learnings scattered across fields, theoretical bases, levels of analysis, and research foci (Ebers, 1997). As one author duly observes, “we are

nowhere near having a systematic framework or theory for predicting what kinds of ties matter under what kinds of circumstances in what ways” (Nohria, 1992: 14).

Among the growing pains in the advance of network theory and practice, the task of defining the word ‘network’ is at once problematic because there is no one way “to describe, explain, and prescribe network as an organizational form” (Li, 1998: 829). Moreover, networks, by their very nature, pose a set of research questions quite unlike those that informed and motivated past theoretical approaches<sup>30</sup> (Baker, 1992; Clegg and Hardy, 1996). Even consensus on its referent label remains elusive (Nohria and Eccles, 1992: 288), an observation supported easily by the long list of synonymous terms and cognate phrases used in good currency right now to describe these web-like entities.<sup>31</sup> As the passage shown below makes evident, there is considerable debate surrounding the conceptual essence and analytical distinctiveness of the network form as a formal organizational design.

First, scholars disagree about what network looks like. ... Second, scholars debate about why network exists. ... Third, scholars argue about how to build an ideal-type network. ... In sum, the study of network is in a state of chaos or mess (Li, 1998: 829-830).

But, irrespective of scholarly dissensus on the specific antecedents and outcomes of network formation (Ebers, 1997), the debate over core concepts, norms, assumptions, language, and methods is healthy and desirable. For one thing, such issues get at the heart of the theory and practice of organizations and contribute, therefore, to the richness and overall development of the field (Clegg and Hardy, 1996). Secondly, the heterogeneity of the literature is indicative of an idea that is relevant to many. That the brainchild is suitably abstract (Ebers, 1997) and plastic (Alstynne, 1997) to support diverse points of



view is a testimony to its utility and importance.<sup>32</sup> So, even though the discovery of a grand theory of networks or of some all-inclusive model is not likely to happen any time soon<sup>33</sup>, the seeds of knowledge germinate and grow in the spaces between rival ideas.

*Shared Ideas and Points of Intersection: Dimensions  
Of Network Organization (NO)*

This is not to say that there are no common themes and points of intersection. Diverse perspectives still manage to coalesce around a number of shared ideas. First, networks are empirical objects that differ markedly from traditional command-and-control structures (Baker, 1992; Miles and Snow, 1986; Nohria and Eccles, 1992; Powell, 1990). Contrasting the two, networks are characteristically flatter and leaner in design, rendering them more flexible and more dynamic than their non-organic counterparts, e.g., mechanistic or bureaucratic structures (Alstynne, 1997; Burns and Stalker, 1961; Fulk and DeSanctis, 1995; Jarvenpaa and Ives, 1994; Symon, 2000). In particular, the capacity of networks to get things done—to disseminate, interpret, and act upon new data without the need or delay of having to pass information through the chain of command or search for resources up and down a hierarchy enhances their responsiveness (Ibarra, 1992: 169; Powell, 1990).

Second, one of the most striking features of a network is the power of self-renewal (Broekstra, 1996). Networked forms are very effective in highly complex situations (Chisholm, 1996). More than a decade's worth of research suggests that the network form of organization constitutes an "an efficient mechanism to effectuate the potential for learning" (Ahuja, 2000; Grabher, 1993; Hagedoorn, 1993; Hagedoorn and Schakenraad, 1994; Nooteboom 1999; 2004; Powell et al. 1996; Rowley et al., 2000;

Uzzi, 1997; Vanhaverbeke et al., 2006: 2). That is to say, as different conditions present them self, networks learn and change, improve and/or innovate accordingly (Baker, 1992; Jarvenpaa and Ives, 1994; Symon, 2000). The innate ability of the network organization to redesign itself time and again enables such forms to accommodate new tasks (Baker, 1992: 398; Eccles and Crane, 1988) and to deal with metaproblems in a capable manner (Chisholm, 1996). For this reason networks have emerged the “organization choice” or strategy for a range of social systems (Clegg and Hardy, 1996: 11; Galbraith et al., 1993: 290) under the millstone of an unpredictable, uncertain environment.

Third, multiple network forms exist (Ibarra, 1992). As such, it is perhaps more correct and certainly more useful to visualize network in a plural sense rather than as one specific configuration (Grandori, 1998; Rockart and Short, 1991). The concept of network organization presupposes myriad patterns<sup>34</sup> of possible interrelationships that may come about both *within* and *between* social systems. That is to say, the architecture of all networks consists of various configurations of intra- and interorganizational *links* and *nodes* that develop to achieve the shared goals and objectives of its members (Cohen, 1993).<sup>35</sup> Thus, “networks operate at many [different] levels” (Skyrme, 1999: 15) and “may vary greatly by purpose or function” (Chisholm, 1996: 218). The makeup and disposition of any particular network depends largely on the interplay of three “content” factors: (1) communication content—the exchange of information between actors; (2) exchange content—the flow of goods or services among member groups; and (3) normative content—the shared expectations, goals, and values that network partners hold (Aldrich and Whetten, 1981; Chisholm, 1996: 218).

Fourth, network membership is for the most part portrayed in the literature as fluid and diffuse, voluntary and impermanent (Chisholm, 1996; Cohen, 1993; Fulk and DeSanctis, 1995; Nohria and Eccles, 1992; Symon, 2000), but may also be composed of some more enduring relationships<sup>36</sup> (Ibarra, 1992). A visible effect of the network's relational content (Aldrich and Whetten, 1981; Chisholm, 1996), the number, strength, and types of connections among members in a given network may differ (Thorelli, 1986; Wellman, 1988) and may change over time (Cohen, 1993). Further, not all linkages are direct and some members may participate in multiple relationships (Tishy, Tushman, and Fombrun, 1979). Consequently, the culture of a network evolves over time and is a derivative of the ongoing mix and permutations of all its linkages (Thorelli, 1986). Or, more simply stated, a network's culture is a function of its relational content.

Fifth, reciprocity lies at the heart of network behavior. Networks cohere through the shared values of their members (Lipnack and Stamps, 1982) and are based on lateral relationships among relatively equal partners (Chisholm, 1997a; Cravens et al., 1994). The effectiveness of the network is dependent as such on mutual responsibility, accountability, and trust (Hastings, 1993; Lipnack and Stamps, 1994; 2000; Powell, 1990; Rockart and Short, 1991).

Sixth, network members are "loosely coupled" and "under-organized," which means that they represent an assortment of physically dispersed entities that convene intermittently under the banner of a higher-level purpose, problem, and/or ambit of common concern (Badaracco, 1991; Broekstra, 1996; Chisholm, 1996; Cohen, 1993; Skyrme, 1999). Owing to its lateral patterns of exchange and the equivalent status of its

members, networks rest on “a horizontal organizing principle” (Chisholm, 1996:219).<sup>37</sup> As such, networks are “hydra-headed”<sup>38</sup> (Lipnack and Stamps, 1982), egalitarian (Chisholm, 1997a; Cravens et al., 1994), autonomous (Chisholm, 1996) forms. Since there is no centralized source of power, members are responsible for directing and controlling work activities. Leadership is, therefore, a collective enterprise—functionally dispersed throughout the network and shared in tandem by colleagues with a mutual sense of responsibility for the whole (Chisholm, 1996; Hastings, 1993).

Seventh, open communications are the norm (Hellriegel et al., 1992). Network compeers communicate directly with whosoever is most knowledgeable, connected, or otherwise useful for the current tasks or concerns at hand (Rockart and Short, 1991; Symon, 2000). Network designs are a tangible manifestation of human interactions—patterns of contacts, activities, exchanges, and relations—and the technologies used to support them (Chambers, 1999; Finlay, 1987; Fulk and DeSanctis, 1995; Helgesen, 1995; Rockart, 1998).

Eighth, on seeing the reality of ‘superconnectivity’<sup>39</sup> (Hiltz and Turoff, 1993; Turoff and Hiltz, 1998) unfold and its potential to legitimate new social structures, many observers readily credit the convergence of information and communication technologies (ICT) as the definitive factor in the emergence and spread of network organizations<sup>40</sup> (Drucker, 1988; Lipnack and Stamps, 1994; 2000; Mandeville, 2005; Rockart, 1998; Scott Morton, 1991). Indeed, the vision of a ‘Network Nation’ (Hiltz and Turoff, 1993)<sup>41</sup> and other such similar conceptions of superconnectivity are instantly recognizable in the growing reach and popularity of the Internet (Cahoon, 1998; Chong, 2001; Newman and

Johnson, 1999; Rosenberg, 2001; Ryan et al., 2000) and the attendant burst of collaborative activity and virtualization it makes possible (Lipnack and Stamps, 1994, 2000; Skyrme, 1999). By lifting the restrictions of physical space and time, ICT enables collective endeavor by blurring boundaries, facilitating communication, and widening the range of possible connections among actors (Hiltz and Turoff, 1993; Malone and Rockart, 1991; Sproull and Kiesler, 1991). Described by one commentator both as a “web of inclusion” and as the “technology of participation” (Helgesen, 1995), the enabling capabilities of ICT have led to the genesis of many new cooperative structures not ever before imagined or even possible (Child and Faulkner, 1998; Nohria and Eccles, 1992; Scott Morton, 1991; Skyrme, 1999).

*An Enacted Systems View:  
Towards an Integrated View of NOs and LOs*

On the basis of the foregoing discussion, there is an obvious correspondence between NOs and LOs. As a result of this correspondence, what comes into focus is a thumbnail sketch or outline of the learning organization as an organic model with many of the same felicitous properties described above –i.e., self-organizing, flexible, adaptable, holographic, egalitarian, decentralized, and so on—not seen to the same degree in other organizational forms (Hastings, 1993; Hellriegel et al., 1992; Kanter and Eccles, 1992; Örténblad, 2002; Rockart and Short, 1991). Many researchers, moreover, note the natural ability of networks to learn (e.g., Mandeville, 2005; Podolny and Page, 1998; Powell and Brantley, 1992; Uzzi, 1997), an observation which of itself suggests an affinity between NO behaviors and LO ideals. Seeing as the LO and NO are “value-driven systems” (Limerick and Cunnington, 1993) that coalesce around many of the same

principles, there is fit between them that can be exploited to bridge the structure-process gap found in the OL-LO literature. In particular, by marrying these compatible partners into a unified perspective, we gain a more complete picture of the learning organization through which we may address the recursive relationship between LO structure and OL processes.

An organization's collective capacity to learn has become a strategic imperative for its sustainability and success (Shimko et al, 2000); one that is key to building the flexibility, adaptability, speed, and responsiveness (De Geus, 1997; Gabris and Ihrke, 2003; Hendriks and Vriens, 1999; Pasmore, 1988; Senge, 1990) required to withstand the demands of a turbulent environment. As conditions vary, networks learn and innovate as needed (Baker, 1992; Jarvenpaa and Ives, 1994; Symon, 2000), which makes them a viable structure to operationalize the LO.

In contrast to the vertically defined formal reporting relations that describe hierarchical structures (Daft, 1998), networks can, by virtue of their characteristic boundary-spanning lateral relations, bring about rapid information transfer by putting people in direct contact with one another (Charan, 1991; Hastings, 1993; Mandeville, 2005; Powell, 1990). Accordingly, new knowledge and meanings may evolve that are "qualitatively distinct" from the disparate pieces of information held by individuals and groups prior to synthesis (Podolny and Page, 1998; Powell and Brantley, 1992). So, in effect, the network is a conduit for knowledge development and a locus for learning that benefits from the combinatorial synergy of its actors. Recalling from Chapter 5 that knowledge is socially constructed (Das Gupta and Richardson, 1995; Driscoll, 1994), the

network form is for this reason an especially congruent structure for the learning organization (Chisholm, 1997a; Mohrman and Mohrman, 1993; Senge, 1990) as explained by Mandeville (2005) in the passage below.

Structurally, networks ... help to create new information as well as transmit it. New information often emerges spontaneously through the interaction of network members. Also, as each person in a network receives information, it is synthesized and new ideas may spring forth. Networks thus share new ideas and help create them, and are therefore an ideal form of learning organization for acquiring timely, relevant, effective knowledge (p. 171).

This is not to suggest, however, that the mere existence of a networked infrastructure is an automatic guarantee that an organization will leverage its resources effectively (Savage, 1996) or even learn. Rather, both the context to create knowledge as well as the ability to tap into available knowledge are the necessary preconditions for regeneration, innovation (Nonaka and Takeuchi, 1995; Senge, 1990), and high performance (Mische, 2001) so observed by network researchers in these linked structures. Indeed, a network organization if effective will animate the traits of a learning organization (Chisholm, 1997a; Mohrman and Mohrman, 1993; Senge, 1990) given that its structures and processes are congruous and able to support creative collaboration and constant learning as the network accrues shared experience to address emerging problems and catalyze positive change (Bennis and Biederman, 1997; Chisholm, 1996; Savage, 1996). Likewise, trust, “a key lubricant of networks” (Mandeville, 2005: 175), must develop in order for the LO to enjoy the participative openness, consensus building, improved communication flow, and better responsiveness to environmental change (Chang and Lee, 2001; Edmondson, 1999; Hoff et al, 2004) promised by the reticular form.

By way of summary Table 7-2 below presents some typical definitions for network organization from a number of germane scholarly sources. Although the table is not exhaustive, the sampling highlights the key points presented in the foregoing discussion and as such calls attention to many of the structural and relational factors that together define a network, the social structure most amenable to the learning organization paradigm.



**Table 7-2**

**What is a Network Organization?**

<b>Author(s)</b>		<b>Perspective:</b>
Casson and Cox	1997	A set of linkages that either directly or indirectly connects every member of a group to every other member of a group (p. 175).
Chisholm	1998	A set of autonomous organizations that come together to reach goals that none of them alone can attain singly (p. xxi).
Clegg and Hardy	1996	A loosely coupled cellular structure of value-adding activities that constantly assimilate new information and elements. Said structures take many different forms ranging from the formal to the informal; they may exist simply to exchange information or be involved in an array of joint activities; they may be explicitly mediated by network “brokers” or emerge from the initiatives of the firms themselves (pp. 9-10).
Hastings	1993	The patterns of linkages or interdependencies that develop amongst organizations, groups, and/or individuals to enable the achievement of shared goals and objectives; also, the electronic exchange of information (p. 12).
Hellriegel et al.	1992	A mosaic of mutually interdependent lateral mechanisms and processes (p. 626).
Ibarra	1992	Lateral or horizontal patterns of exchange, interdependent flows of resources, and reciprocal lines of communication (p. 169).
Jay	1964	All organizational or social units connected by a specific type of relationship (cited in Chisholm 1996, p. 218).
Knoke	2001	A configuration that arises out of continual exchanges and cooperative activities among participants in a social system (p. 395).
Nohria and Eccles	1992	The structure of ties among actors in a social system (p. 288).
Rockart and Short	1991	Interrelationships within or between firms to accomplish work; part of an organization’s overall system of interrelationships to accomplish work (p. 192).
Trist	1983	Purposeful social systems that comprise a position in social space between the society as a whole and the single organization (p. 270).

## *Limitations*

Earlier we noted a number of limitations with respect to the state of network knowledge. To briefly reiterate, persistent “open questions” (Chisholm, 1996: 216) and “semantic confusion” (Hastings, 1993: 12) challenge communication and impede the emergence of a coherent knowledge domain (Ebers, 1997; Hastings, 1993; Kanter and Eccles, 1992). And, notwithstanding its apparent ubiquity in “business and elsewhere” (Mandeville, 2005: 165), the network as an abstract construct is still in its conceptual infancy (Chisholm, 1996); with learnings scattered across many fields, theoretical bases, levels of analysis, and research foci (Ebers, 1997).

According to Nohria (1992) a systematic framework or theory for “predicting what kinds of ties matter under what kinds of circumstances in what ways” (Nohria, 1992: 14) remains elusive because there is no one way “to describe, explain, and prescribe network as an organizational form” (Li, 1998: 829). Alongside a general lack of agreement on what comprises an optimal network structure once it has formed, there is also a debate in the network literature on how network structures facilitate the attainment of desired outcomes for their members (Vanhaverbeke et al., 2006: 3). Moreover, terminological confusion has likewise given rise to tension between the concepts “network organization” and “organizational networking” –a situation which parallels the “widely recognized distinction” (Easterby-Smith et al, 1998; see also Chapter 5) between LO and OL, a problem that has long precluded the development of a unified body of knowledge on learning within the OT/OS field.

Last but not least, an interesting outcome of the superconnectivity phenomenon described previously in this chapter has been the emergence of a widely held technocentric belief that is aptly captured by the famed and oft-quoted corporate catchphrase of Sun Microsystems: “The network is the computer™.” Due to similarities that cut across concepts, goals, assumptions, and language, the notions of ‘network organization’ and ‘electronic network’ have tended to converge such that the term ‘network’ frequently calls to mind something closely synonymous with the new forms of distributed or virtual organization made possible by ICT (Hastings, 1993; Nohria and Eccles, 1992). Notwithstanding the popular vernacular, however, the two expressions are not always equal nor is digital technology a prerequisite for the ties that link actors in a social system (Nohria and Eccles, 1992).<sup>42</sup> While advances in digital technologies can and do play an important role in shaping network organization, organizing to do things together is decidedly human (Lipnack and Stamps, 2000: xxiv). Ultimately it is the interactions and relationships among people that impart meaning to the networks in which they participate.

As we know from the work of Gareth Morgan (1996; 1998), any given metaphor is simultaneously “a way of seeing and not seeing.” As a result, the mental imagery of the network as computer metaphor, while able to engender valuable insight is by itself “incomplete, biased, and potentially misleading” (Morgan, 1998: 5) because it obscures the importance of an organization’s social dimensions (Nohria and Eccles, 1992; Stoll, 1995). That is to say the drawback of the computer as network metaphor is the error of omission that results by casting the spotlight only on technology. Clearly, the imperative for constant change and flexibility demanded by today’s turbulent environment

commands consideration of “hard” *and* “soft” elements alike (Hastings, 1993; Skyrme, 1999) –to wit, technological *and* psychosocial factors that together must answer the question, what is a network if it is to serve as a way to operationalize the LO.

### *Summary*

Structure is an under-appreciated idea within the LO literature. Ultimately, the failure to address the question of structure widens the gulf between theory and practice, and may indeed account for the rare occurrence of learning organizations in real-life. This chapter, in order to fill this gap, situated this problem of omission—both historically as well as in the context of current theory and practice—to arrive at a more relational, contextual, and systemic understanding of the LO.

When we take structure for granted in the study of learning organizations, we are left in the end with an impoverished, incomplete understanding of both learning and organizations for three key reasons. First, to disregard the relationship between structure and process reflects an intellectual blind spot to the dual nature of the former as both a medium and outcome (Giddens, 1984). Second, the structure of the aspiring learning organization is too important to ignore because it has the potential both to enhance and inhibit the learningfulness of the whole (Berends, Boersma, and Weggeman, 2003; Lane, 2001; Senge, 1998). Third, the cornerstone of the learning organization model is systems thinking. To not factor structure into the equation is to violate this principle and lose sight of the whole and its defining properties.

Following on the heels of well over a decade of study, there is a growing consensus in the academic literature that networks are an effective mechanism to facilitate learning and innovation under conditions of high uncertainty (Mandeville, 2005; Vanhaverbeke et al., 2006: 2). Given that the LO and NO are “value-driven systems” (Limerick and Cunnington, 1993) that coalesce around many of the same principles, there is an obvious correspondence between both constructs. By wedding these ideas into a unified perspective, we have gained both a more complete picture of the learning organization as well as an opportunity for theoretical synthesis.

In Chapter 8, *Conclusions*, we reflect on our learnings and suggest a number of propositions for further research on the design and implementation of learning organizations.

## NOTES

<sup>1</sup> Recent intellectual developments in the arts and sciences host a growing challenge to many of the ideals of the Modern Era. In many fields of human endeavor, the Western intellectual tradition of objective reality no longer remains “the apodictic vision it once was” (Miller, 2002: 96). The failure of technical rationality (Schön, 1983) to produce universal truths (Miller, 2002) and/or solve many real-world problems (Doll, 1993) has helped to legitimize other forms of knowing not based on normal science or positivist assumptions (Atkinson, 1990; Burrell, 1996; Dunbar, 1995; Marsden and Townley, 1996). Today there is growing recognition that there are multiple and opposing truths, rival perspectives, and competing “knowledges” all vying for a place within the center of collective human consciousness (Barnett, 2000). As a result of these countervailing conditions, uncertainty, fragmentation, and paradox have risen to the fore to supplant the modernist’s former certainties with a variety of alternative beliefs based on subjective logic and relativism. Many observers suggest this state of affairs signals both the arrival of a new epoch, which they label “postmodernity,” as well as the emergence of a new epistemology, i.e., “postmodernism” (Best and Kellner, 1997; Gitlin, 1989; Hassard, 1993; Lyotard, 1984; Miller, 2002; Soltis, 1993). Thus, as “a signifier of historical periodization” (Hassard, 1993), the postmodern age denotes a new era in the progressive evolution of society; as a theoretical perspective, the postmodern age questions the probity of objective rationality via its blanket “rejection of absolute truths and grand narratives” (Burke, 2002) in the explication of social phenomena. In a word postmodernity is a celebration of multiple voices and otherness (Carter and Jackson, 1993).

For the purposes of this paper, the postmodern age is a matter of context. Understood as such, it is defined herein as a volatile backdrop for organizational pursuits, wherein information grows at an accelerated pace (Marquardt, 1996; Shenk, 1997); the combined effects of technological revolution and globalization collapse the usual bounds of distance, time zones, and organizational borders (Dale, 2005; Flodmark, 2005; Hitt et al, 1998; Pauleen et al, 2004); and change is rapid, constant, irreversible, unpredictable, and uncontrollable (Bergquist, 1993; Goldman et al., 1995). As a group these issues raise many niggling questions that challenge the both the essence and efficacy of existing theories of organization (Goodman and Sproull, 1990; Shafritz and Ott, 1996) as well as lend new meaning to its former notions of structure, process, membership, and requirements for collocation of work (Fisher and Fisher, 1998: 135).

It is important to point out at this juncture that the definition established above is a working definition—it is a verbal depiction of what a postmodern environment signifies within the context of *this* work and for that reason may or may not be valuable or relevant elsewhere. Inasmuch as “postmodernists do not tend to like fixed criteria or dogmatism” (Saugstad, 2001), this explanation comes with the following disclaimer: it is the viewpoint of one writer—me—based on my own collective understanding, interpretation, and insights vis-à-vis works deemed germane to the subject at hand. To borrow a

sentiment from the semantic philosophy of Lewis Carroll's legendary character Humpty Dumpty,

When I use [the] word [postmodern], ... it means just what I choose it to mean—neither more nor less”(Carroll, 1971: 190).

Naturally, the reader is free to agree or disagree with me—and that's the point. Postmodernism does not sanction claims to universal knowledge or unconditional truths because any given conclusion is incomplete and inadequate given the pluralist world in which we live (Barnett, 2000; Flax, 1990; Miller, 2002; Rosenau, 1992: 167). Therefore, the reader should not interpret this account as a “final definition” (Saugstad, 2001) and should be very wary of anyone else that advances such an assertion. As Pauline Rosenau (1992: 17) aptly suggests, “no approach [to explain the postmodern] can be regarded as completely authentic or absolutely adequate,” if only for the reason that meaning is bound to context and perspective. Or, stated in the language of postmodernism, knowledge is a social creation and that of itself renders meaning contextual, situational, perspectival (i.e., what a person sees depends upon his or her background), and culturally specific (Kerka, 1997; Miller, 2002; O'Farrell, 1999).

Based on the foregoing discussion it should come as no surprise that definitional diversity pervades the literature on the topic; the adjective ‘postmodern’ is a highly contested term with competing connotations (Klages, 2003; O'Farrell, 1999). Scholars and pundits within and across a variety of fields use the p-word in many different ways to describe a complex range of issues (Hayes, 1998; Klages, 2003), not to mention its growing ubiquity in the popular culture and common vernacular, along with that of cognate cousins ‘postmodernism’ and ‘postmodernity’ (Doll, 1993). But, notwithstanding the rising employment of these verbal entities inside and outside of the academy, widespread use has elicited neither consensus nor clarity. The p-word(s) seem(s) to apply to everything and nothing at once (Hayes, 1998; Rosenau, 1992), a situation that reflects what some commentators describe as the inherent “relativism” (Wikipedia, 2004b) and “contingency of language” –namely, that “the meaning of language is contingent upon the individual using or authoring it” (Pestritto, 1998). As a consequence, the label postmodern and all its variations are difficult concepts to “pin down” (Klages, 2001). Indeed, the quest to distill its vast and burgeoning literature (Best and Kellner, 1997) into a clear, intelligible, cogent definition has become for me both the quixotic charge of a doctoral candidate and a job that nears futility given the contentious and confusing terrain of the postmodern scholarly landscape! In fact, there is a joke circulating in good currency right now that makes this point quite well.

Question: What do you get when you cross a Mafiosi with a postmodernist?

Answer: Someone who will make you an offer you can't understand (O'Farrell, 1999: 11)!

According to Gitlin (1989: 58), the essence of the postmodern era is uncertainty. By many accounts the concept defies definition (Bloland, 1995; Brearly, 2001; Degner, 1999; Mackenzie, 1998; Rosenau, 1992; Saugstad, 2001) because it is a “*kuddelmuddel*” –a jumble of many diverse ideas (Wenzel, 2001) about what constitutes legitimate knowledge and from whence it comes. Even how one writes the word, be it with or without a hyphen, is a point of controversy that parallels the tension between “normal science” (Burrell, 1996) and interpretivist inquiry, where the use of the hyphen implies support for the canons of the former (i.e., generalization, synthesis, and prediction) while the absence of the hyphen shows support for the latter (Hassan, 1985; Rosenau, 1992) and its high regard for the primacy of context. For these reasons Rosenau (1992) warns that detached efforts to write about the postmodern are “quintessentially no-win ventures” because the more one tries to define what is characteristically postmodern the less characteristic it turns out to be (Homer, 1998).

Nevertheless, it is fair to say that the term ‘postmodern’ is a descriptive label that derives its meaning from the way in which it is employed (Wikipedia, 2004a). Its two most common applications are as a reference to the late 20<sup>th</sup> century—i.e., the period of time following the Modern Era or postmodernity (Ray, 2001) –and/or as a catchphrase that embodies any number of sociological, technological, political, and cultural conditions present in the world today that challenge the efficacy of Western civilization’s values, norms, and institutions—especially its stalwart faith in the certainty of science, progress, universal principles, and the objective authority of reason—to always arrive at the truth and explain reality (Bergquist, 1993; Blackburn, 1994; Crow, 2000; Kottak, 2001; Smith, 1996). Here, the intended meaning of postmodern borrows its substance from both of these uses—that is, it expresses a crucial “turn” (Best and Kellner, 1997) or “watershed” in history with respect to the acquisition, development, and deployment of knowledge (Boje and Prieto, 2000; Lyotard, 1984; Wilber, 1996). By way of summary, the following dichotomies, which hail from a number of different sources, call attention to some of the differences between modern and postmodern beliefs.



<b>Modern Era</b>	<b>Postmodern Era</b>
Machine	Organism
Control Nature	Respect Nature
Passive Matter	Active Matter (autopoiesis or self-making)
Determinism	Indeterminacy
Reversible Time	Irreversible Time
Immutable Order	Chaos
Reductionism	Complexity
Certainty	Probability
Monoperspectival	Multiperspectival (complementarity)
Value Free	Value Responsible
Distance	Participation
Totalization	Deconstruction
Universal	Particular
Stability	Fluidity
Individual	Relationships

Adapted from: Best and Kellner (1997: 225);  
Hassan, (1993: 152); Ray (2001: 251)

<sup>2</sup> This “map” serves two purposes. (1) It reminds the reader where we are in our approach to trace the historic roots of the learning organization. (2) It provides a quick overview of how the theoretical threads relate to each learning discipline in this approach.

<sup>3</sup> There is longstanding debate in the social sciences regarding the relationship between structure and agency, which has “led to polarized camps of theorists who either subscribe to a deterministic view that elevates structure over action or [to one which] follows a voluntarist perspective that privileges subjective agency” (Gleeson and Knights, 2006: 278; Knights, 1997; Walsh, 1998). In a nutshell the question is one of ontological emphasis (Hays, 1994; Pozzebon, 2004), wherein theorists cast their vote either for the primacy of social forces or in favor of individual autonomy as the foremost antecedent for human action and choices. Thus, at issue are fundamental questions about the nature of social behavior; namely, is it a function of the creative volition, purposefulness, and will of the individual or is it more an outcome of socialization, interaction, acculturation, and other such contextual factors and influences (Biesta and Tedder, 2006; Bunnin and Tsui-James, 2003; Musolf, 2003; Willmott, 1997)?

While an exhaustive review of the structure–agency debate is beyond the scope of this paper suffice it to say that each perspective alone is lacking in its ability to foster an understanding of the recursive interplay between social systems and human actors (Shilling, 1999; Staber and Sydow, 2002; Thompson, 1989; Wikipedia, 2006d). Much like the chicken-egg conundrum, the continuous cycle of actors affecting structure and vice versa (Wikipedia, 2006d) renders either stance flawed. Consequently, allegiance to

any one side is problematic inasmuch as it presents an incomplete understanding of reality as Thompson (1989) summarizes below.

The problem of the relationship between ... action and social structure, lies at the heart of social theory ... In the writings of most major theorists ... this problem is raised and allegedly resolved in one way or another. Such resolutions generally amount to the accentuation of one term at the expense of the other: either social structure is taken as the principle object of analysis and the agent is effectively eclipsed ... or individuals are regarded as the only constituents of the social world... In both cases the problem is not so much resolved as dissolved, that is, disposed of beneath a philosophical and methodological platform that is already located in one of the camps. Few questions in social theory remain as refractory to cogent analysis as the question of how, and in what ways, the action of individual agents is related to the structural features of the societies of which they are part (p. 56).

The inherent difficulties of these positions are likewise summarized by Shilling (1999) who writes:

First, they share a relatively disembodied view of the agent that overemphasizes cognition and marginalizes the significance of the emotional dimensions of interaction for human action and social structure. Second, most have difficulty maintaining the causal significance of both the 'people' and the 'parts' of the social system and are, therefore, unable to examine adequately their interplay (p. 544).

Recognizing the mutual interdependence between structure and agency, a growing number of theorists now argue that the chasm between these concepts is a false dichotomy in need of theoretical integration (Giddens, 1984; Hays, 1994). But, despite converging efforts to bridge the gap between these ideas, the quest to solve the catch-22 of structure–agency has proven to be a tough nut to crack (Gleeson and Knights, 2006); a largely unsolvable problem that some commentators attribute to the metaphysical assumptions of a “Cartesian heritage” (Weik, 2006) and its penchant for reductionism (Willmott, 1997). Nevertheless, some useful theory and insights have emerged over the years, such as Giddens’ (1984) theory of structuration (Biesta and Tedder, 2006; Lane, 2001; Wikipedia, 2006d), which has much in common with post-classical systems dynamics (Lane, 2001; Senge, 1998) and has been proposed as a way to address the dualism of individual and organization in organizational learning (Berends, Boersma, and Weggeman, 2003; Lane, 2001; Senge, 1998).

Giddens proposed structuration theory as a “sensitizing device” (Giddens, 1989: 294; Pozzebon and Pinsonneault, 2005: 1357) to demonstrate that “structure and agency are a duality that cannot be conceived of apart from one another” (Ritzer and Goodman, 2004). By reconceptualizing the dualism of individual versus society as the duality of agency

and structure (Berends, Boersma, and Weggeman, 2003: 1039), social structures become both the means for and ends of social interaction (Giddens, 1984). Thus, structure is something that both emerges from and dictates human behavior and activity.

In general, structure refers to the social facts, arrangements, relations, and practices that order social life by exerting power and constraint over people (Musolf, 2003; Willmott, 1997) and agency refers to the abilities of persons as rational beings to exercise discretion in choosing to act (Yuthas et al, 2004). According to Ritzer and Goodman (2004) and others (e.g., Weik, 2006, and Wikipedia, 2006d), the agency–structure perspective is the European proxy for the micro–macro perspective of the American scholar such that,

Agency generally refers to micro–level, individual human actors, but it can also refer to collectivities of that act. Structure usually refers to large-scale social structures, but it can also refer to microstructures, such as those involved in human interaction (Ritzer and Goodman, 2004: Chapter 15, Chapter Summary).

In comparing the European and American perspectives side-by-side, the key difference between them is their treatment of the actor, as Ritzer and Goodman (2004) explain below.

... [The] key differences between micro–macro and agency–structure theory is their respective image of the actor. Micro–macro theory tends to have a behaviorist orientation, whereas agency–structure theory places an emphasis on conscious, creative action. A second major difference is that micro–macro theory tends to depict issues in static, hierarchical, and ahistorical terms, whereas agency–structure theory is more firmly embedded in a historical, dynamic framework (2004: Chapter 15, Chapter Summary).

This dissertation embraces both perspectives by employing insights from both sides of the Atlantic to understand the potentialities and pitfalls of the learning organization idea. The tension between structure and agency provides a useful backdrop for a range of micro- to macro-level issues and their underlying social structures by calling attention to the dialectical relationship between them. If nothing else, the tension between structure and agency serves as a useful “sensitizing device” –to borrow a phrase from Anthony Giddens—for an observed gap in the literature on learning organizations.

With that said, most discussions of the learning organization reflect an agency bias in that they do not address the possible ways in which organizational structure and context together shape behavior and affect learning (Ashton, 2004; Lee et al, 2004). Consequently, our understanding of the learning organization is incomplete, which may account for the scarcity of these entities in real-life. In order to address this gap, this paper considers the two-way relationship between social structure and agency—to wit,

how organizational structures and workplace contexts constitute sites of engagement for individual learners and groups, and concomitantly, how these shape, facilitate or restrict learning within the workplace (Ashton, 2004; Lee et al. 2004: 23) as a whole.

<sup>4</sup> A number of authors make a distinction between Cartesian and analytical dualisms (Archer, 1988; 1995; Bhaskar, 1993; Shilling, 1999; Weik, 2006; Willmott, 1997). Wherein the former concept insists upon an absolute division between two entities, such as mind over matter and subject versus object, the latter one enables us to recognize the separateness and interdependence of two entities at the same time by stressing the character of the evolving relationship between them. Thus, to be mutually dependent but analytically distinct suggests that while we can talk about and ascribe individual properties to structures and processes—i.e., each one as conceptually distinguishable—the two are also mutually enacting and reinforcing. In other words, structure and process relate recursively (van Fenema, 2005: 8).

According to Willmott (1997),

The fact that the two [structure and agency] *are* mutually influential does not mean that they are not analytically separable. ... The salient point I wish to make *pro tem* is that structure, like mind, is an emergent property, whose causal powers/liabilities are irreducible to, though emergent from, the *sustained* doings of human agency. Hence [there is] the possibility of *analytical* dualism, not Cartesian dualism, to examine their relative interplay over time, for the two are mutually dependent but distinct because of their emergent causal powers (pp. 95-96).

<sup>5</sup> Structure constitutes both the medium and condition of human agency (Hay, 2001). In other words, social structure and human agents constitute a reciprocally dependent duality for which human agents, through their actions, make, repeat or modify social structures; and, in turn, these social structures enable or constrain human activities (Kouroubali, 2002). To clarify this point, Kouroubali offers the following example:

... In a healthcare setting, a doctor may start keeping detailed patient records when such ‘structure’ does not exist in the organization. Her action may create the momentum to enact a change in existing structures of the organization. If other doctors follow her action, keeping detailed records could become a new norm (p. 2).

Likewise, the notion of language-as-structure and communication-as-process illustrates the structure–agency duality (Mee, 2006). For example, language is a structure inasmuch it employs established rules of grammar, syntax, phonics, and word definitions that both constrain how we speak and write, as well as enable our ability to communicate with others. While people may deviate from established protocols, there are limits to how far they can go if others are to understand them. Among the penalties for non-compliance to

language norms are incomprehensibility and possible disdain by the intended audience. At the same time, there is “a creative openness to language”. Language is not a static structure; it changes and evolves through usage (i.e., human agency) such that some words become obsolete (e.g., *erst* and *wherefore*), while others acquire new meanings (e.g., words such as “gay”, “cool”, “geek”, and “methodology”).

<sup>6</sup> In response to critics’ charges that “old” institutional theory neglected the role of agency and the effects of power relations (DiMaggio, 1988; Hirsch and Lounsbury, 1997) and had in addition become more a theory of stasis than change (Powell, 1991), new institutionalism (Powell and DiMaggio, 1991; Hirsch and Lounsbury, 1997) emerged to address these challenges (Westwood and Clegg, 2003: 8). Through its reinvention the approach has undergone important shifts and reorientations; and for that reason contemporary research in this area has developed much interest in the processes of institutionalization rather than looking at the characteristics of institutionalization as well as a greater awareness and concern for the issues of power and agency (Ibid). Notwithstanding the usual connotation of its moniker, however, institutional theory suffers from a low degree of “theoretical institutionalization”, an affliction made apparent by its lack of consensus over key concepts, the absence of a standard research methodology, dated data, and fairly intense debate within and across its study landscape (Clegg and Hardy, 1996: 15; Hirsch and Lounsbury, 1997; Scott, 2005; Tolbert and Zucker, 1996: 175; Westwood and Clegg, 2003).

<sup>7</sup> Ironically, the institutional perspective has yet to be institutionalized and like many research domains within the field of organization studies,

There is very little consensus on the definition of key concepts, measures or methods within this theoretic tradition. ... Institutional theory has developed no central set of standard variables, nor is it associated with a standard research methodology or even a set of methods. Studies have relied on a variety of techniques, including case analysis, cross-sectional regression, longitudinal models of various types, and so forth (Tolbert and Zucker, 1996:175).

<sup>8</sup> Ontology is our sense of reality about “the way we think the world is” while epistemology concerns knowledge and knowing—to wit, what we think is knowable about the world (Fleetwood, 2005: 197). The importance of ontological clarity cannot be overstated because it impacts the course of knowledge development in every field of endeavor as explained in the passage below.

The way we think the world is (ontology): influences what we think can be known about it (epistemology); how we think it can be investigated (methodology and research techniques); the kinds of theories we think can be constructed about it; and the political and policy stances we are prepared to take. Although having the ‘right’ ontology does not guarantee

that the ensuing meta-theory, theory and practice will also be ‘right’, having the ‘wrong’ ontology makes this virtually impossible—although we might be ‘right’ by accident. Similarly, having an unambiguous ontology does not guarantee that the ensuing meta-theory, theory and practice will also be unambiguous, but having an ambiguous ontology makes this much harder. In short, *ontology matters* (Fleetwood, 2005: 197-198).

<sup>9</sup> See the preceding note (i.e., note 8).

<sup>10</sup> Problems of ontological approach coupled with either the failure or refusal to embrace the complementarity of competing views has mired organization theory and practice in the midst of a well-known, well-documented territorial joust between rival paradigms and discourses (Bohman, 1991; Caldwell, 2005b; Clegg and Hardy, 1996; Fleetwood, 2005; Gleeson and Knights, 2006; Hays, 1994; Knights, 1997; Reed, 1996; Rosenbaum 1996; Walsh, 1998).

<sup>11</sup> The theory of enacted systems is an amalgamation of two complementary perspectives, systems dynamics and Weick’s (1979) theory of enactment (Senge, 2001). In brief, the focus of systems dynamics is the way in which the structure of feedback in a social system affects the patterns of behavior that systems can generate while the latter view, which closely parallels Giddens’ thoughts on structuration, posits that social structures are both a medium and outcome of human behavior. In particular, Weick (1979) submits that an organization adapts and adjusts to its environment by acting upon it to change it.

Peter Senge and colleague Wanda Orlikowski combined the two views into one integrated perspective to compensate for the inherent deficiencies or “blind spots” they observed in either view alone. According to Senge,

[System] dynamics has had little to say about where particular feedback structures come from, or why some structures dominate and not others. Without an account of the coming into being of the feedback structures that give rise to persisting patterns of behavior, system dynamics lacks a compelling theory of practice that can inform leaders interested in creating new structures, behaviors and outcomes. ... The problem with structuration or enactment is that it explains little about the dynamic consequences of different enacted structures –that is, the different patterns of behavior that arise from different structures. Combining the system dynamics and enactment views leads to what Wanda Orlikowski and I call the enacted systems view. I believe that this enacted systems view takes a step in laying a rigorous foundation for starting to see how leadership as a distributed phenomenon can bring about deep changes in structure and behavior, or fail to do so. It deals with social reality on three interdependent levels: events or outcomes, patterns of behavior over time, and underlying structures which both give rise to those patterns and are

continually shaped by them. From this view, leadership is about enacting new structures, which in turn give rise to new patterns of behavior and new outcomes. ... System dynamics and enactment or structuration naturally complement one another. Just as enactment addresses the blind spot in system dynamics around how structures come into being, so does system dynamics address the blind spot in the enactment view about how different structures have different dynamic consequences, that is give rise to different patterns of behavior over time (Senge, 2001).

<sup>12</sup> Following Immanuel Kant (1781/1900: 466), the term architectonics as used here means “the art of constructing a system” (Boje et al, 2005). But, it also takes on the more contemporary meaning described by Michael Holquist (1990: 29) who, in his discussion of the Russian philosopher and literary scholar Mikhail Bakhtin, defines architectonics as the “science of relations” or “the general science of ordering parts into a whole,” thus, calling attention to the totality of relationships linking the LO’s physical, technological, cultural, political, and social contexts.

<sup>13</sup> Conflation “concerns the problem of reducing structure to action (or vice versa) and the [consequent] difficulty of documenting an institution *apart* from action” (Barley and Tolbert, 1997 as cited in Rose and Scheepers, 2001: 221).

<sup>14</sup> Organization studies and research has become increasing pluralistic (Reed, 1992), as organization theorists entertain a wide variety of themes and agendas. A number of theorists have expressed dismay over the state of the field and question whether diversity and fragmentation are signs of progress or more indicative of a weed patch in need of tending (e.g., Pfeffer, 1982, 1993). Likewise, Scott (2004:30) laments the proliferation of “boutique theories” advanced by “academic entrepreneurs” to account for “a disproportionate proportion of the variance in some, specific dependent variable or in some limited domain of social behavior.” Still others argue that much of the diversity is nothing more than old wine in new bottles, such as Fenton and Pettigrew (2000) who state, “a closer inspection of the literature reveals that many ... new forms are not entirely new but reminiscent of earlier typologies, such as Burn’s Stalker’s (1961) organic and mechanistic forms and Galbraith’s (1973) preoccupation with lateral relations.” Nevertheless, while some may suggest contingency theory has lost its long-held franchise (e.g., Westwood and Clegg, 2003), many perspectives engage alternative notions of fit as a starting point and then add on variables and interpretations from newer paradigms in very eclectic fashion (Donaldson, 1996:70; Drazin and Van de Ven, 1985).

<sup>15</sup> *Zeitgeist* is a German expression meaning the “tenor of the times” (Hunt and Dodge, 2001). As used in the context of this paper, *zeitgeist* denotes both the “intellectual and cultural climate” of contemporary organization studies as well as the “ethos” of the scholarly cohort that contributes to the field (Wikipedia, 2006f).

<sup>16</sup> This is a reference to Frank Lloyd Wright and his description of another inextricable relationship, that of form and function (see Chapter 1, especially note 9). According to

Wright, form and function are a duality “joined in spiritual union” (BrainyQuote.com, 2006). In the same way, LO and OL comprise a whole, a marriage of ideas; let no theorist draw asunder.

<sup>17</sup> A few notable exceptions include the “Dimensions of the Learning Organization Questionnaire” proposed by Watkins and Marsick (Yang et al, 2004), which presents a multidimensional measure of the learning organization; Senge’s (2001) “enacted systems view” (see note 11), which combines systems dynamics and enactment theory (Weick, 1979) in order to arrive at a single integrated perspective of social structures and human behavior; and research conducted by Tan and Heracleous (2001), which links structure to process by uncovering *both* structural and cultural barriers to LO implementation in an Asian national police force.

<sup>18</sup> According to Barnard, the informal organization plays a vital role because it aids in communication, fosters group cohesion, and helps new members fit in to the social fabric of the organization via collective personal contacts and interactions between staff.

<sup>19</sup> Conventional wisdom dictates that bureaucratic systems are appropriate for routine tasks but not so for innovation (Autier, 2001:2; Burns and Stalker, 1961; Galbraith, 1982; Souder, 1987). That the learning organization paradigm stands diametrically opposed to the traditional Weberian model of bureaucratic organization is a corollary to this principle, because, as Geppert (2000) explains:

[The] main task of the ‘Learning Organization’ is seen in developing radical forms of learning. In the center is the voluntary creation of revolutionary organizational change processes that do not just transform organizational structures, rules and technical systems, but the organization’s deeply grounded culture. In this sense the ‘Learning Organization’ is understood as the opposite of the traditional Weberian model of bureaucratic organization: with rather decentral[ized] forms of learning, less hierarchic networking relations, broad skilling and training (Geppert, 2000:4).

<sup>20</sup> Notwithstanding the persuasive historical account offered by Scott, it is important to note at this juncture that other scholars disagree and locate the beginnings of the OT/OS field to the period spanning 1887 to 1947; a timeframe in which many foundational pieces emerged, such as that of Wilson (1887), Taylor (1911), Fayol (1916), Barnard (1938), Roethlisberger and Dickson (1939), Urwick (1943), and Simon, (1947), among various others (Westwood and Clegg, 2003). But, once again, not everyone is in agreement that these formidable, classic works mark the definitive start of the field. Some scholars go much farther back in history to describe the initial stages of organization theory, such as Shafritz and Ott (1996:11), who begin their chronology in 1491 B.C. with Moses and the exodus of the tribes of Israel from Egypt! The point is there is no consensus on what constitutes the beginning of organization theory. But, irrespective of this sticking point, it is fair to say that Weber’s work has left a lasting impression on the



field of OT/OS, both in terms of the structural dimensions and dynamics that describe bureaucracy as well as in terms of its limitations and dysfunctional consequences (Dessler, 1980; Fenton and Pettigrew, 2000), issues that we take up later.

<sup>21</sup> Contrary to popular belief, the term “bureaucracy,” which is a derivative of the French word “bureau,” was an English word before its use by Weber; the *Oxford English Dictionary* notes usage in a number of different years between 1818 and 1860, which was prior to Weber's birth in 1864 (Wikipedia, 2006g).

<sup>22</sup> The ability of an organization to function with efficiency depends upon its base of authority. Weber (1946) drew a distinction between three such types of authority structures to account for control in large organizations, which he described as follows: (1) rational-legal authority; (2) traditional authority; and (3) charismatic authority.

Rational-legal authority derives from a belief in the legitimacy of rules and position. It the right of those with higher rank and power to issue commands based on objectivity and use of facts (Alkadry and Nyhan, 2005; Stone, 1997) –hence, their “legal authority” –to lower ranked individuals within a hierarchy of delineated influence and control. Subordinates are obedient to superiors due to the “legally established impersonal order” of their rank (Weber, 1964: 328 as cited in Kast and Rosenzweig, 1985: 67). As a result,

[Bureaucracy] is like a modern judge who is a vending machine into which the pleadings are inserted together with the fee and which then disgorges the judgment together with reasons mechanically derived from a code (Bendix, 1960:421 as cited in Dessler, 1980:26).

According to Weber, rational-legal authority is the basis for the creation and control of most government organizations (Daft, 1998:107).

By contrast, traditional authority emanates from a belief in the traditions and validity of a leader's right to hold power and wield authority (e.g., as in the control exercised by monarchies and churches). In this way, as a consequence of established tradition, an individual has a right to exercise control (Ibid).

Charismatic authority, unlike the other two types, comes from the compelling appeal of the leader himself/herself, thus making him or her worthy of veneration and authority over others (Ibid).

Authority types are not mutually exclusive of one another. That is to say, more than one type of authority may exist in an organization (Ibid). However, legal rational authority is the most widely used form to govern work activities in organizations.

<sup>23</sup> Since Weber first spoke of the irrational underbelly of rationalization, other authors have likewise explored this issue and its effects on society. In *The Postmodern Condition: A Report on Knowledge*, Lyotard (1984) argues that the basis of knowledge in

postindustrial society is no longer truth but the optimization of inputs to outputs or “performativity”. In the same way that Weber (1946) argued about the inescapable “iron cage” of bureaucracy, Lyotard contends that performativity is due to the indispensable role of computers and information-driven technologies since the Second World War and how these entities have come to rule all aspects of contemporary life.

To wit, ours is an age driven by expediency, metrics, “hard data,” codified procedures, and an unyielding obsession to do more with less (Hancock, 1996; Nonaka and Takeuchi, 1995; Ritzer, 1996; Steijn and de Witte, 1995). Because of changing technologies and expectations, there is a tendency today to equate the value of knowledge in these terms, with efficiency as the chief criterion of legitimation. For this reason, many argue that performativity has become the core value of society (Schultz, 1998), the “main principle upon which all decisions are justified” (Blackmore and Sachs, 1997). As one observer from down under sees it,

[The] maximizing of outputs for given levels of investment occupies a highly elevated, even dominating position among ... social values. ... Fields of endeavor ... previously shaped by non-economic values are increasingly construed as domains in which the maximizing of returns on investments is a priority ... so much so that the very calibration of outcomes, often with scant regard for their inherent meaning or relative importance, is looked upon favorably as symbolic evidence of the pursuit of *rational efficiency* (Vinson, 2003:1).

<sup>24</sup> Max Weber (1946) posited that bureaucracy, the consummate expression of rationality in human organization, would ultimately imprison society in an “iron cage” of its own design and from which there is no escape (Aron, 1999; Coser, 2003; Elwell, 1996; Henry, 1989). That is to say, Weber recognized the potential for backfire. In place of expected gains in efficiency, predictability, quantification, and control, over-bureaucratization (Rocca, 2000; Ritzer, 1996) leads quite paradoxically to the bane of uniform standards that in the end, raze human creativity, dehumanize social relations, diminish quality, and promote superficiality (Matacio, 2002; Palmer, 2004; Quinn, 2000; Steger, 2003).

<sup>25</sup> Frederick and McIlroy (1999:4) describe the knowledge economy as one in which the generation and exploitation of intellectual capital (i.e., knowledge) play a major role in the creation of wealth. Given the importance of knowledge and how it develops, many experts see the network form growing in dominance as authors Atkinson and Court (1998) explain below.

[S]ocial capital (networks, shared norms, and trust), as fostered in collaboration and alliances, may be as important as physical capital (plant, equipment, and technology), and human capital (intellect, character, education, and training) in driving innovation and growth (Atkinson and Court, 1998:15).

<sup>26</sup> While it is beyond the scope of this chapter to discuss completely the findings of these authors and/or many other pieces of applicable research on networks, suffice it to say that conceptual, theoretical and methodological diversity pervades the body of work, with points of overlap and divergence (Ebers, 1997:5). As one author duly notes,

One would need to have followed the field of international business, technology strategy, industrial relations, organizational sociology, and the new institutional economics as well as interdisciplinary work on themes as cooperation, the embeddedness of economic life in social structure, and the proliferation of small business units to have kept abreast (Powell, 1990:295-366).

Be that as it may, here we are less concerned with the apparent heterogeneity of these perspectives than we are with the important commonalities that they share. A key linkage between them is the social system of the configuration: the people and the pattern of relationships between them.

<sup>27</sup> The symptoms of the traditional organization's inability to adapt to changing environmental conditions are numerous. Among the most visible examples of its decline is the pervasiveness of anti-big-government feelings the world over, the collapse of communism, and the demise of many former corporate bureaucracies (Halal, 1998). The tides of change have created the necessity for a new species of organization. The need today for speed and liveness overturns a longstanding belief that organizations are inherently hierarchical beasts (Hastings, 1993; Peters, 1992; Schein, 1989). A growing body of work suggests now instead that pyramidal structures are giving way to flatter, more flexible organizational forms that are typified by lateral relationships and patterns of exchange, interdependent flows of resources, and reciprocal lines of dialogue (Ebers, 1997; Hastings, 1993; Ibarra, 1992; Nohria, 1992; Peters, 1992; Powell, 1990; Savage, 1996; Schein, 1992).

<sup>28</sup> A network form is by nature more flexible and responsive to its environment than a command-and-control structure. Due to its various linking and coordinating mechanisms, networks evolve multiple channels for the creation and transfer of knowledge. Consequently, knowledge flows more freely across boundaries in network configurations—to wit, it is not the sole province of decisionmakers at the top of an organizational pyramid. Thus, the potential for different or more effectual action grows out of the synergistic effects of empowered people working together for a common purpose.

<sup>29</sup> Despite contemporary interest in networks, the idea itself is not especially new. According to one author,

At least since the 1950s, the concept of networks has occupied a prominent place in such diverse fields as anthropology, psychology, sociology, mental health, and molecular biology. In the field of

organizational behavior, the concept dates back even further. As early as the 1930s, Roethlisberger and Dickson (1939) described and emphasized the importance of informal networks of relations in organizations (Nohria, 1992:1).

<sup>30</sup> Over the last fifty years radical changes have beset both the world of academics and the world of organizations (Clegg and Hardy, 1996). Old certainties no longer exist. Different theoretical approaches and research practices have come to light to challenge the reign of “normal science” and the logic of causal explanation (Atkinson, 1990; Burrell, 1996; Dunbar, 1995; Marsden and Townley, 1996). Likewise, a barrage of outside forces—deep changes on a world-wide scale such as global competition, new technologies, shifting demographics, changing values and societal mores, growing interdependencies, the move towards knowledge work, the advent of postmodernity, and so on—tests many of the basic assumptions behind traditional models of organization (Broekstra, 1996; Galbraith et al., 1993; Hastings, 1993; Skyrme, 1999). The upshot is that there are many new phenomena, new trends, new conditions, new ideas, and above all new social structures for students of organizations to study and explore hitherto not possible or imagined.

<sup>31</sup> The bountiful vocabulary emerging from network literature has been likened to a “terminological jungle in which any newcomer may plant a tree” (Alstynne, 1997; Barnes, 1972 as cited in Nohria, 1992:3). Some kindred labels for network include: informal organization (Barnard, 1938; Roethlisberger and Dickson, 1939); organic organization (Burns and Stalker, 1961); post-industrial organization (Huber, 1984); heterarchy (Hedlund, 1986; Stark, 2001); post-bureaucratic organization (Heydebrand, 1989); cluster organization (Hellriegel et al., 1992; Mills, 1991, 2001); lattice organization (Gore, 1985; Mills, 1991, 2001); holonic enterprise (McHugh et al., 1995); the new organization (Hastings, 1993); postmodern organization (Clegg, 1990); nomadic organization (Styhre, 2001); small world (Kogut and Walker, 2001; Milgram, 1967; Pool and Kochen, 1978; Watts, 1999; Watts and Strogatz, 1998); network nation (Hiltz and Torhoff, 1993; Poster, 1990; Turoff and Hiltz, 1998); and virtual team(s)/organization (Lipnack and Stamps, 2000; Su et al., 2001).

<sup>32</sup> The network concept has emerged as a key and ready form of organization that is very befitting our era (Chisholm, 1996:216; Helgesen, 1995; Limerick and Cunnington, 1993; Lipnack and Stamps, 1987, 1994). Moreover, its significance and utility are clear, based on its omnipresence in myriad settings and across diverse applications. On this very point, Drennan (1999) writes:

Networks are ubiquitous. The brain is a network of neurons. Organizations are networks of people. The global economy is a network of national economies, which are networks of markets, which in turn are networks of producers and consumers. Diseases and rumors both transmit themselves through social networks, and computer viruses propagate via the Internet.

Similarly, Lipnack and Stamps (1994:xvii) remark that the network form has developed into a versatile and “pervasive form of organization.”

Owing to the network’s rife incidence, researchers from a full complement of different traditions and varied venues have found the notion of connectivity, i.e., patterns of nodes and links, to be a multipurpose, metaphorical framework with which to depict a wide variety of recurring relationships (Alstynne, 1997; Ebers, 1997). As a result, a substantial and sundry literature on networks has developed over the years, with notable contributions from many dissimilar fields. Depending on one’s perspective, however, this is a mixed blessing.

Although extant work provides unique insights into the intricacies of networks (Neergaard, 2000), synthesis of these prior learnings has been scant up until now. For all intents and purposes, efforts at conceptual consolidation have not kept pace with the burgeoning accumulation of network research, a situation duly noted by writers in the field (e.g., Li, 1998; Neergaard, 2000; Nohria, 1992; Oliver and Ebers, 1998). By way of rejoinder some recent work has endeavored to take stock of the “mess” (Li, 1998), assimilate results, and triangulate a network’s most prominent features (Alstynne, 1997).

For example, in one such mapping of the knowledge domain, Gray and Wood (1991) identified six core themes—namely, resource dependence, macroeconomics, microeconomics, strategic management, politics, and structure—which they deem key in making sense of collaborative alliances. Likewise, Alstynne (1997) observes that no one perspective is sufficient to capture all the ins and outs of networks because different models and research methodologies yield “markedly different interpretations.” In deference to the analytical power of diversity, he uses ideas from computer science, economics, and sociology to explain and to mark the conceptual boundaries of the network literature. As such, he casts the network organization into three metaphorical frameworks, i.e., the network as computer, the network as economy, and the network as society, which together provide a more complete view of “the attributes that describe, the contexts that favor, and the principles that govern network organizations.” Last but not least, Oliver and Ebers (1998) conducted a “conceptual network analysis” of the body of network research published in four leading journals from 1980 to 1996. In their search for common themes, Oliver and Ebers registered as many as 17 different theoretical frameworks which they grouped into four substantive areas of research or clusters called (1) social network, (2) power and control, (3) institutional, and (4) economic.

What these three illustrations seem to suggest is that irrespective of the “atomistic” (Parkhe, 1993), fragmented state of the field (Möller and Wilson, 1995) that so many scholars lament, there are possible points of convergence and a number of common themes that cut across the cacophony of voices and their ideational kaleidoscope of varied concepts, theories, and research results (Alstynne, 1997; Neergaard, 2000; Oliver and Ebers, 1998). And, though it highly improbable that any single discussion on networks can ever catalogue all of its various forms, these noble efforts embody positive

steps toward greater cross-disciplinary dialogue and the discovery of new avenues for research.

<sup>33</sup> That consensus on the network form is not likely to happen any time soon is not surprising for a number of reasons. Taking into account the “historically contested terrain” of the organization studies field (Reed, 1996), the prospect that the aggregate of knowledge on network organization—a subset of the former—be any less diverse or conflict-ridden than its lineage is chimeric. A consequence of its past, the current state of affairs is a logical progression in the evolution of the organization field on the whole and yet another example of how “history is destiny” (Rabin, 1997: 7).

Moreover, the problems that have given rise to network organizations are themselves “messes” (Ackoff, 1974) –“wicked problems” (Harmon and Mayer, 1986; Rittel and Webber, 1973) which defy precise definition and for which there are no clear-cut answers (Chisholm, 1996). Recalling the principle of requisite variety, a system must have sufficient variety to match the variety present in the environment (Ashby, 1961). It follows from this precept that the design and structure of an organization must parallel the complexity of the surrounding environment (Emery and Trist, 1965; Lawrence and Lorsch, 1969; Morgan, 1996). Accordingly, the notion of a network has been the basis for a wide variety of relationships (Ebers, 1997) that legitimate new social structures (e.g., joint ventures, strategic alliances, consortia, et cetera) and through which its members effect increased political, social, and/or economic sway (Chisholm, 1996: 218; Gerlach and Palmer, 1981) in the pursuit of shared goals. Given the assortment of network arrangements to emerge, it stands to reason that their occurrence will likewise challenge our attempts at positing grand theories, all-inclusive models, and coherent frameworks.

While Li’s (1998) assessment of the field finds probable cause for the conceptual immaturity and limits of network epistemology he writes about, it is also a reminder that “diversity is here to stay” (Clegg and Hardy, 1996: 3). If postmodernity teaches us anything at all it is to reject the search for universal truths and embrace instead difference and incommensurability for there is no single best way of seeing (Morgan, 1996) or doing things (Marsden and Townley, 1996). Consequently, if some actionable knowledge is to result from the theoretical disorder described by Li, there is a clear need to acknowledge and embrace the existence of multiple interpretations of reality (Burrell, 1996; Gergen, 1992; Hassard, 1994).

By valuing heterogeneity over sameness we gain new and unique ways to understand organizations. Accordingly, it is more practical to think of network in a plural sense, as various patterns of interrelationships that occur within and between social systems to accomplish shared goals rather than as one specific configuration (Grandori, 1998; Rockart and Short, 1991). In this way we capture both the multiplicity, variety, and complexity of new and emerging forms of distributed organization as well as greater opportunities to discover possible points of intersection between them. To the extent that each separate viewpoint characterizes some “set of recurring ties among a set of nodes,” all together the perspectives form a conceptual base of cumulative learnings that is

sufficiently abstract to support different voices, approaches, meanings, and theories (Alstynne, 1997; Burrell, 1996; Ebers, 1997:15; Gergen, 1992; Hassard, 1994; Skyrme, 1999).

<sup>34</sup> Every participant of a network is potentially both a *node* and a *link* in the pattern of communication that constitutes the network as a whole. Each participant sometimes initiates or receives information as a node, and each participant sometimes acts as a link for other participants (Lipnack and Stamps, 1982: 230). Because the communications between any two nodes in the network is not commutative (*i.e.*, the relation between *A and B* is not necessarily the same as the relation between *B and A*) the task of studying a network is extremely complex (Beer, 1966).

According to Beer (1966: 10), a network of *n* elements involves  $(n)(n-1)$  relations. For example, given a network with only seven members, there are forty-two relationships within the network (*i.e.*,  $(7)(7-1) = (7)(6) = 42$ ). Further, if we define a state of the network to be the pattern produced when each of these communication relations is either “in being or not in being,” there are  $2^{42}$  or 4,398,046,511,104 possible different states of the network (Beer, 1966: 10)! Beers notes that this is “a fantastically large number,” especially considering the simplistic nature of the relationships assumed (*i.e.*, in being or not in being).

<sup>35</sup> The most general use of the term ‘network’ is as a descriptor for the structure of ties that develops when social entities interact (Salancik, 1995) and/or work together to achieve shared purposes (Cohen, 1993). Accordingly, there are two distinguishing characteristics of all networks that are fundamental in practice:

1. Nodes: the parts and activities of the structural configuration, as embodied by individuals, roles, groups of persons, organizations, industries, or nation states (Nohria and Eccles, 1992: 288).
2. Links: the social relationships and communication channels through which the parts of the network (*i.e.*, nodes) coordinate with one another (Fulk and DeSanctis, 1995:337; Galbraith, 1977; Lipnack and Stamps, 1982:230; Lucas and Baroudi, 1994:14; March and Simon, 1958; Mintzberg, 1979; Nadler and Tushman, 1988; Skyrme, 1999: 15; Thompson, 1967).

In a very broad sense then a network is any system of interconnected actors (Beer, 1966). The ties that bind any two or more of the actors together into a social system includes anything that forms the basis of a relationship (Fulk and DeSanctis, 1995; Jay, 1964; Chisholm, 1996; Nohria and Eccles, 1992).

<sup>36</sup> Among the many dimensions used to categorize networks are differences in the substance and type of relationships involved. And, depending on the strictures of the problem definition that a particular author crafts, *e.g.*, whether the networks being studied

are fixed or emergent (Ibarra, 1992), internal to an organization (Baker, 1992) or externally driven (Podolny and Page, 1998; Symon, 2000; Trist, 1983), the tenor, purpose, composition, and duration of the observed associations so engaged vary. This is significant because the content (Aldrich and Whetten, 1981; Chisholm, 1996) and nature of network ties “can have important implications for action” (Nohria, 1992: 14).

Ibarra (1992), for example, conceives of an organization as a network of recurring relationships, some formal or prescribed and others emergent or informal. Thus, hers is an internal or intraorganizational focus that allows for both enduring and temporary linkages among actors within the social system. In particular, she looks at the dynamic association between the two types of network forms—the ebb and flow of interaction between them—and how this affects the ability of an organization to get things done. Her research underscores the notion of interdependence between formal and informal structures and the need to understand any social network in the context of these complementary systems. Ibarra concludes that effective action is contingent on the alignment between the prescribed and emergent systems to which an actor belongs in tandem with the goals and objectives slated for pursuit.

Numerous other authors focus their research efforts on a range of linkages *between* social systems. In such works, the significance of the network construct is as interorganizational phenomenon and therefore has to do with the substance of cooperative relations between any number of social entities outside the confines of a single organization. And, while networking between social entities can take many different forms, there is a common underlying logic for collective action that has pulled these otherwise disparate bodies together in mutuality to augment competences and resources, to gain opportunities for synergy and mutual learning, and to be more flexible and adaptive in the face of high uncertainty and shifting environmental conditions (Child and Faulkner, 1998; Knoke, 2001).

In one example of note, Chisholm (1996) tested both the conceptual value and practical import of the network construct in a broad-based effort aimed at community development, where the goal was to create an integrated system of effective organizations and institutions to better compete in the global market. The research employed an action research process (Chisholm, 1995, 1997a; Elden and Chisholm, 1993), with the twin purposes of generating knowledge about the network and at the same time developing it. Two important findings emerged. First, Chisholm found a high level of congruity between a socioecological view of networks (Trist, 1983:270) –to wit, a social system conceived as a group of organizations drawn together to deal with one or more metaproblems within the complex milieu of society—and his target of study. Second, the results of the study demonstrated the explanatory power and broad utility of network ideas—even by a group of previously uninitiated practitioners, not formally trained in network system concepts. (For more information on the latter result, refer to the Chisholm (1996) piece entitled, “On the Meaning of Networks.”)



Ebers (1997), on the other hand, takes a far more instrumental view of the motives underpinning the development of interorganizational relationships. In contrast to the higher level purposes affirmed by many pundits to be that which attracts and binds a set of organizations together into a network alliance (Badaracco, 1991; Broekstra, 1996; Chisholm, 1996; Cohen, 1993; Skyrme, 1999), Ebers contends that interorganizational networks form most of the time for two economically driven reasons—either to increase profits or to reduce costs. Indeed the literature is rife with examples of both. At the heart of this genre is a high reciprocal interdependence among network actors that calls attention first, to the complementarity between the structure, process, purpose, and environment of these social constructions (Alstynne, 1997; Helgesen, 1995) and second, to the diverse and sundry ties that both condition and are conditioned by networking relationships.

In one such oft-cited piece, Snow, Miles and Coleman (1992:5) describe the modern firm as “a new form of organization—delayed, downsized, and operating through a network of market sensitive business units—[which] is changing the global business terrain.” They go on to identify three distinct network types—namely, stable, dynamic, and internal—and the kinds of ties that define them. Since anything beyond a brief synopsis of their typology is beyond the scope of this paper, suffice it to say that a strategy-based, pecuniary bent is obvious in their portrayal of each network form. For Snow et al., flexibility and responsiveness are the central tenets of the network organization's strategy. Accordingly, *stable* networks consist of firms involved in long-term relationships with external suppliers who bring expertise into the core or parent company; *dynamic* networks are temporary alliances that organize around a lead or brokering firm to collaborate on a specific project or to capitalize on a special opportunity; and *internal* networks are loose associations of business units inside a single firm that purposely subject themselves to the pressures of outside market forces to induce innovation and improved performance.

On the basis of the preceding examples and their obvious diversity, it follows that there is not a stock model for network relationships—a variety of forms and cooperative arrangements exist. Networks vary as the relationships that define them vary which in turn derive from their especial mix of communication content, exchange content, and normative content (Aldrich and Whetten, 1981; Chisholm, 1996). In other words, the *raison d'être* and meaning of networks is bound up in relationships: the links, connections, communications, values, et cetera that breathe life into the social system (Lipnack and Stamps, 1982:229).

<sup>37</sup> Relationship patterns between actors in a network are not vertical: they do not exhibit the superordinate-subordinate control structures shown by the boxes and lines of a conventional organization chart (Hastings, 1993; Ibarra, 1992; Nolan et al., 1988; Powell, 1990). Rather, authority is decentralized and communications are not of the form command and obey. Rather, decisions evolve through consensus and information passes from person to person, group to group.

<sup>38</sup> In Greek mythology, Hydra was the nine-headed serpent slain by Hercules as one of his twelve labors: when any one of its heads was cut off, two others replaced it (Lipnack and Stamps, 1982:8). Similarly, networks have many leaders that rise to the occasion in response to circumstances and needs (Ibid).

<sup>39</sup> *The Online Dictionary of the English Language* defines superconnectivity in two ways: (1) As the phenomenon of almost perfect communication and information exchange throughout all human habitations of the universe by computers; and alternately as (2) the linkage of all social and economic institutions by means of information flow via computer networks (as cited in Hiltz and Turoff, 1993:455). The World Wide Web approximates what is meant by superconnectivity: WWW is a sprawling, electronic network with the potential to enable “perfect communication and information exchange” (Turoff and Hiltz, 1998).

<sup>40</sup> Just as the telegraph and telephone were central to the rise of vertically integrated hierarchical organization (Scott Morton, 1990), the structure and enabling capabilities of today’s core technologies are likewise catalysts for social change (Diebold, 1969; Helgesen, 1995; Martin, 1996). Powering the evolution away from hierarchy towards more fluid web-like forms are computers and the networks that connect them (Dertouzos, 1991; Hiltz and Turoff, 1993). Out of the union of computing and communications technologies, the type of organization that begins to take shape is fundamentally different than hierarchy (Hastings, 1993). In its place the new organization that comes into view is a reflection of the underpinning technology, as one commentator explains below:

The web is particularly suited as an architecture for our era because its very design mirrors the structure of our primary technology, the integrated network. In just such a way, the hierarchy reflected the technology of the Industrial Age, which began with the steam engine and continued through the development of the mainframe computer. As Stanley Davis [1987:87-89] points out in his insightful study of the new economy, *Future Perfect*, electronic information systems “provide a formal method for overcoming the limitations of chain-of-command organizations, by creating channels that permit the various parts of the organization to communicate directly.” . . . Thus what the hierarchy proscribed, the electronic network facilitates, and even *demand*s. Indeed, nothing proves the obsolescence of hierarchical structures or underlines their essential inappropriateness for our era so profoundly as today’s technology; nor is anything so responsible for their demise (Helgesen, 1995:13-14).

<sup>41</sup> In 1978, Starr Hiltz and Murray Turoff predicted that an outcome of technological innovation would be the birth of a “Network Nation,” a global society where open information and access is the norm and computer-mediated communications is the conduit for interaction. In their own words, they describe this vision as follows:

We will become the Network Nation, exchanging vast amounts of both information and socio-emotional communications with colleagues, friends, and “strangers” who share similar interests, who are spread out all over the nation. Ultimately, . . . these social networks facilitated by computer-mediated communications will become international; we will become a “global village.” . . . An individual will, literally, be able to work, shop, or be educated by or with persons anywhere in the nation or in the world (Hiltz and Turoff, 1993:xxv).

While the Hiltz and Turoff vision of a “Network Nation” has not fully come to fruition, time and distance barriers between people are shrinking. Owing to recent advances in information and communications technologies (ICT), there are greater opportunities for human networking and interaction to take place (Afuah, 2003; Hiltz and Torhoff, 1993; Lipnack and Stamps, 1997). The enabling capabilities of ICT have led to the genesis of many new cooperative structures not ever before imagined or even possible (Child and Faulkner, 1998; Helgesen, 1995; Nohria and Eccles, 1992; Scott Morton, 1991; Skyrme, 1999). The convergence of computing and communications technologies, moreover, has laid the foundation for an online global infrastructure wherein people from multiple organizational bases may confer directly with one another, unbounded by the constraints of time and space, to combine their efforts in pursuit of common goals (Cohen, 1993; Hiltz and Torhoff, 1993).

<sup>42</sup> Recalling that networks vary by type, purpose, and level of operation (Chisholm, 1996; Ibarra, 1992; Skyrme, 1999), it stands to reason that there is more than one way to conceive of a network organization, which may or may not involve digital connections. Indeed, some of the earliest work on network organizations predates the dawn of “omnidirectional communication systems” (Cahoon, 1998) and the emergence of the “Network Nation” (Hiltz and Turoff, 1993).

For example, when seminal thinkers such as Barnard (1937) and researchers Roethlisberger and Dickson (1939) theorized, observed, and wrote about the import of informal groups of relations in the workplace, collocation was requisite to make contacts and form associations with others. Unlike today, computerized conferencing and other such modalities for interaction and “working together apart” (Grenier and Metes, 1992) did not yet exist.

ICT, while valuable to the support and maintenance of contemporary network organizations, is but one part of a complex system of human communication. Beyond its great enabling capabilities, the medium for connectivity is not as important as the actual incidence and character of connectivity. Ultimately, the common purposes that link people together make the network.

A case in point: long before the advent of computers, virtual meeting places, and electronic connections, people formed and joined networks of one type or another to find friendship, solve problems, and achieve shared goals. As far back as the 1100s, craft

guilds, trade associations, and mutual aid groups provided their members with outlets for economic cooperation, socialization, protection, and refuge (Lipnack and Stamps, 1994:179). Thus, people joined networks in medieval times for many of the same reasons that they do today: to derive the psychosocial benefits of group affiliation; to learn from complementary relationships with others; and to face common challenges in partnership more effectively than is possible to do on one's own.

When all's said and done, the building blocks of networks are reciprocity, trust, and collaborative behavior. Together, these mutually reinforcing elements yield social capital, be it transacted in real space or in cyberspace.

## Chapter 8

### CONCLUSIONS

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**Con-clu-sions** \kĕn'klu-zhĕns\ **noun:** 1: The end or close; final part. 2: The last main division of a discourse, usually containing a summing up of the points and a statement of opinion or decisions reached.

*-Merriam Webster's Collegiate Dictionary, 10th Ed.*

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The purpose of this dissertation has been to develop a metatheoretical framework with which to analyze and better understand the notion of a learning organization; an intriguing, yet misunderstood concept that many argue is “one of the most abused terms within the business lexicon” (Jackson, 2000: 193). Due to “continuing widespread interest in his vision” (Ibid), my starting point for this study was Senge’s (1990) conception of a learning organization, which was recast in this work as an ornate cloth made from manifold threads of thought about “organizations, organization, and organizing” (Clegg and Hardy, 1996). On the basis of this metaphor I sought to unravel this swatch of intellectual material—to deconstruct Senge’s vision as it were—so as to first discover the conceptual filaments from which it is spun and then examine the tensile strength of the ideational fibers that constitute its theoretical fabric.

This chapter is the consequence of that effort. As its title suggests, Chapter 8 is a summing up of my experience and my learnings, which jointly serve as input for the development of my conclusions. To this end my next task—and ultimate purpose for this dissertation’s final chapter—is model synthesis/re-synthesis and the suggestion of a few new directions for LO theory and practice. Or, stated in terms of my guiding metaphor,

the goal of this chapter is to weave/reweave extant strands of knowledge and new yarns of understanding into the warp and woof of the intellectual fabric that together fashions and clothes the learning organization idea.

### *The Threads of an Idea*

My fascination with the learning organization began in my first doctoral seminar on organization theory, where it was that I first heard the catchphrase “learning organization”. Having worked for over eighteen years at a software design agency within the Department of Defense (DoD) –a large government bureaucracy with its own share of pathologies and dyfunctionalities, I found it an utterly fantastic and intriguing notion that an organization, that is, any organization, could learn anything, let alone the one from which I came!

Across DoD at that time, schedule delays and budget overruns due to faulty cost estimates, design failures, program redirections, and unfixed project scopes (GAO, 1989) were ubiquitous problems. Within my agency in particular, these problems were a way of daily life—to be sure, a major headache for management and an ongoing source of worker discontent and cynicism, over the course of most my tenure there. Finger pointing was common at all levels, up and down the hierarchy. Indeed, management accused their programming staffs of being “non-cooperative”, “inflexible”, and of “dropping the ball”. Programmers, in turn, blamed management for having “unrealistic deadlines” and a blatant ignorance of technical matters. A common lament heard across the organization contemptuously proclaimed, “There’s never time to do it right, but there’s always time to do it over!” Given the tenor of this environment, where mistakes were not learning

opportunities but a reason for disgrace and reprimand, the notion of a learning organization though appealing seemed very much out of touch with reality. A long list of failed management initiatives aimed at improving the quality of worklife at my agency was proof enough of that.

Nevertheless, I was still curious. The notion of an organization that learns for a self-proclaimed professional student like myself had a certain attraction that I could not resist. What's more, I needed to choose a term paper topic for class. That the LO idea was available was a major selling point. Clearly, I needed to find out more.

As it turned out I was not alone in my impressions about the LO idea. A trip to the campus library revealed a dizzying array of articles and books on the topic, which compelled me to dig deeper and learn more. I was especially drawn to Senge's (1990) conceptualization of the LO because of its systems orientation, holistic approach, humanistic values, and disdain for internal politics and game playing. Given my background in mathematics, my love for learning, and my idealism about academia, I resonated to the way in which Senge—an engineer, systems theorist and lifelong learning advocate—presented his arguments. They made sense to me. I was hooked. Thus, what began as a vague idea for a term paper in a beginning doctoral seminar has become for me an exciting area of study.

### *Problem Conceptualization*

The LO idea gained extensive recognition with the publication of Peter Senge's (1990) landmark book, *The Fifth Discipline* (Bartell, 2001; Smith, 2005; Van Wart,

2003). Within its pages Senge imparts a very optimistic, “unapologetically normative” (Jackson, 2000) vision of what an organization could be/should be when it makes learning its guiding ethos (Cheema, 1999:93; Karash, 1994; Snell, 2002; Tsang, 1997). For Senge (1990), learning organizations are workplaces:

[Where] people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together (p. 3).

At the core of Senge’s conceptualization are five essential learning disciplines—fields of study as it were that organizations must adopt to create and institutionalize a learning culture. A brief description of each discipline follows below in Table 8-1.

**Table 8-1**  
**The Five Disciplines of the Learning Organization**

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1. Personal Mastery. The ability to create desired results through an ongoing journey of self-discovery and a genuine commitment to connect learning to organizational work.
2. Mental Models. Deeply ingrained assumptions or mental images that influence how we see the world and how we act. In the learning organization, people challenge their own assumptions and views of the “current reality.”
3. Shared Vision. The collective will to learn that emanates from a conviction and commitment to a common cause.
4. Team Learning. The synergetic power of working together and cooperating with others. Team learning occurs when members of the group suspend their assumptions and engage in dialogue.
5. Systems Thinking. A broad analytical framework to understand the whole rather than just the parts. Senge argues that without a grasp of systems, we can neither grow nor thrive as an organization or as an individual.

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Source: Senge, 1990: 6-11



Once an organization adopts and has command of all five disciplines, Senge proposes that it can then become a learning organization. Moreover, he advises the reader of the need to implement the five disciplines as a total package (i.e., systemically) to realize their full benefit. To this last point he writes:

It is vital that the five disciplines develop as an ensemble. This is challenging because it is much harder to integrate new tools than apply them separately. But the payoffs are immense.

This is why systems thinking is the fifth discipline. It is the discipline that integrates the disciplines, fusing them into a coherent body of theory and practice. It keeps them from being separate gimmicks or the latest organization change fads. Without a systemic orientation, there is not motivation to look at how the disciplines interrelate. By enhancing each of the other disciplines, it continually reminds us that the whole can exceed the sum of the parts (Senge, 1990: 12).

For Senge and innumerable other LO proponents the learning organization is not a final destination but an ongoing journey of discovery (Marsick, 1997; Senge, 1990); “a fundamental shift or movement of mind” (Senge, 1990: 13) away from learning as a process of taking in information to one in which learning is the creative essence of humanity.

The popularity of Senge’s book notwithstanding, the concept of the learning organization is not a new idea (Garratt, 1995; Love et al, 2000), as organization theorists have long pondered how and when learning occurs in organizations (see Chapter 5). Over the years, countless researchers have written about organizations as open, adaptive systems (e.g., Burns and Stalker, 1961; Cyert and March, 1963; and Emery and Trist, 1965); examined the linkages between learning, improvement and design (e.g., Trist and Bamforth, 1951; Pasmore, 1988; Taylor and Felten, 1993; Van Eijnatten, 1993); and used

inquiry and problem-solving as a source of knowledge creation and group development (e.g., Lewin, 1946; 1951; Chisholm, 1995; Golembiewski et al., 1976; Watkins and Golembiewski, 2000). Indeed, “all the necessary conditions to create both the intellectual and practical basis of a learning organization” (Garratt, 1995:25; Jackson, 2000: 193) were in position by 1946, if not earlier. Taken together, a half-century or so of earlier work suggests that the seeds of the learning organization took root much before the publication of *The Fifth Discipline*.

Nevertheless, Senge is a masterful synthesizer who saw the connections among these disparate ideas, which he then pulled together into his conception of the LO. Much in the same way that Weber (1946) abstracted an ideal type of bureaucracy from his analyses of the Industrial Era in which he lived, Senge has abstracted a vision of an ideal type of organization for the attendant turbulence and uncertain conditions that organizations today must endure. By first recognizing and then melding together the complementarities of previous perspectives and approaches, he developed something different—a description and guiding philosophy for an ideal type of organization that learns and can bring about its own continuing transformation. In this way, Senge is to LO as Weber (1946) is to bureaucratic organization (BO).

Owing to the inspirational qualities of his “rhetorical vision,” Senge popularized the LO idea in such a way as to seize the corporate imagination and sustain widespread interest in his view to a far greater extent than what most others have done (Jackson, 2000). For this reason, *The Fifth Discipline* continues to be significant (Jackson, 2000; Kleiner, 2005; Pratt, 2001) even now, more than fifteen years after its publication.

Widely regarded as “one of the ten most enduring ideas” (Kleiner, 2005) of our time, the quest to create a learning organization remains today a major expression of enterprise purpose (Mills and Friesen, 1992) for many organizations, as they seek ways to thrive in a complex world characterized by extreme interdependence and change (Kofman and Senge, 1993; Renesch, 1995; Sessa and London, 2006).

Although Senge is neither the first nor the only luminary to comment on the importance of organizational learning (Lee, 2004; Star, 2001) –be it as a vital strategic resource (David Skyrme Associates, 2003; De Geus, 1997; Fiol and Lyles 1985; Garratt, 1995; Pedler et al., 1991) or as a means to foster a more humane and compassionate workplace (Akella, 2003; Amidon, 2005; Dovey, 1997; Timpson, 1998) –his work gave the idea “impetus” (Pratt, 2001) and is “largely responsible for bringing the learning organization into the mainstream of business thinking” (Pedler et al., 1991: 196; Jackson, 2000) and public consciousness. More importantly than that,

Senge has been shown to be an adept and agile sanctioning agent who, by putting into practice much of what he preaches, has been able to sustain widespread interest in his vision (Jackson, 2000: 207).

Hence, as suggested above, it is the “dramatic qualities of his socially rooted vision,” along with his ability to inspire others to follow that vision, which together endow Senge’s model both with its staying power and its allure, qualities which set it apart “from other competing conceptions” (Jackson, 2000: 207) and management fashions (Abrahamson, 1996; Nickerson and Zenger, 2002).

Nevertheless, the LO model is not without its critics. Despite its broad popular appeal, the LO is a much-debated concept. Just a cursory glance at the related literature

reveals it to be replete with its share of confusion and controversy over many of the LO's core theoretical assumptions.

First, there is not a clear consensus on the meaning of the learning organization (Garavan, 1997; Garvin, 1993, 2000; Kerka, 1995; Smith, 2001). Since the release of Senge's seminal book, there has been a glut of publications on the topic. A few shared ideas notwithstanding, a general lack of correspondence between definitions and appellatives has contributed to a growing, disparate literature. Consequently, definitional diversity pervades the stock of LO knowledge, a condition that has served to mire the concept in ambiguity. In addition, discussions on the LO tend to be esoteric (Garvin, 1993: 79); perhaps too esoteric for those readers that lack either the disposition or theoretical fortitude needed to grasp fully the proposed messages of their authors (Smith, 2005), be it that of Senge or countless others.

Second, the learning organization has proven a hard concept to operationalize in practice. It is very difficult to identify real-life examples (Kerka, 1995; Lawrence, 1998; Smith, 2001; Symon, 2003). Few concrete studies make clear how the learning organization concept works to bring about performance improvements (Ellinger et al, 2003; Goh and Richards, 1997; Henderson, 1997; Jacobs, 1995; Kaiser and Holton, 1998) or how to set measurable improvement goals and guidelines (Garvin, 1993). This is especially true within the context of public organizations where there are some inherent impediments to adoption, such as an entrenched bureaucracy, multiple stakeholders, competing goals and values (Finger and Brand, 1999; Kingsbury, 1999; McGrath, 2002), and a predilection for "groping along" (Behn, 1988) and/or "muddling through"

(Lindblom, 1959) –conditions that tend to favor incremental change over extensive transformation. As a result, the LO idea is often downgraded in its importance as untenable—relegated to the status of a linguistic creation or unattainable ideal type.

Third, the field as a whole has evolved on two separate tracks—the practice focused, prescriptive writing of the LO and the “skeptical, scholarly literature” of OL (Argyris, 1999: 1; Argyris and Schön, 1996; Easterby-Smith et al, 1998; Edmondson and Moingeon, 1998; Leitch et al., 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Tsang, 1997). This chasm is a source of confusion for many people, as evidenced by the frequent misapplication of both terms. That is to say, organizational learning and learning organization are often used interchangeably, though they are not the same thing. There is a “widely recognized distinction” (Easterby-Smith et al, 1998) between the two expressions such that each appeals to different audiences, who subsequently make different assumptions about learning in organizations: they focus on and emphasize different issues; they find their voice in different publication venues; and come together under separate, yet like sounding banner terms (Argyris, 1999; Argyris and Schön, 1996; Easterby-Smith et al, 1998; Edmondson and Moingeon, 1998; Leitch et al, 1996; Lundberg, 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998; Schein, 1996; Tsang, 1997).

For instance, while practitioner and consultant types supposedly gravitate more to the LO literature, those in the academic world purportedly show a preference for the OL literature (Argyris, 1999; Argyris and Schön, 1996; Edmondson and Moingeon, 1998; Leitch et al., 1996; Lundberg, 1996; Miner and Mezias, 1996; Popper and Lipshitz, 1998;

Schein, 1996; Tsang, 1997). Whereas the LO literature exhibits a bias for normative theory and process intervention, the OL literature demonstrates a bias for descriptive theory and empirical investigation (Leitch et al, 1996). At the same time as LO researchers ask, ‘How *should* an organization learn,’ their OL counterparts ask, ‘How *does* an organization learn’ (Tsang, 1997).

Although these divergences mirror other such classic tensions, such as that which exists between theory and practice, fact and value, and/or the descriptive versus the normative (Argyris, 1999; Easterby-Smith et al, 1998; Edmondson and Moingeon, 1998; Leitch et al, 1996; Tsang, 1997), this fissure in the field is cause for concern due to an unfortunate lack of cross-fertilization between the two literatures. To date there has been little attempt to link together and synthesize the sizable yet separate research on individual, group, and organizational learning (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006). Consequently, there are gaping holes in extant knowledge, a state of affairs that is further exacerbated by an undercurrent mentality of *us versus them* between the two communities.

Fourth, the structure of the learning organization—and especially as it relates to human agency and learning outcomes (Akella, 2003; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Moingeon and Edmondson, 1996; Smith, 2001) –is a topic that receives insufficient attention in the LO literature (Akella, 2003; Ashton, 2004; Finger and Brand, 1999; Gifford and Stalebrink, 2002; Lee et al, 2004; Moingeon and Edmondson, 1996; Smith, 2001). The tendency of many authors has been to focus on normative prescriptions and processual concerns alone, divorced of their structural

context (Fenton and Pettigrew, 2000; Finger and Brand, 1999; James, 2003; Smith, 2001; Yang, Watkins, and Marsick, 2004), even though “structure cannot exist apart from the people who enact or interpret its dimensions”(Orlikowski and Robey, 1991:147 as cited in Senge, 1998). This is ironic given that systems theory, the conceptual cornerstone of the learning organization (Senge, 1990; Smith, 2001), argues on behalf of a more holistic perspective.

In general, disputed issues coalesce around the following axes of concern: what is the nature of learning, are the changes that it elicits behavioral or cognitive; who is the learner, is it the individual that learns or the organization; what is the linkage between individual learning and organizational learning; and finally, what is the relationship between organizational learning and the performance of the organization, to wit, does learning necessarily improve performance. Moreover, as one sifts through all the relevant literature on both sides of the OL-LO divide, it is surprising to discover that despite the popularity of *The Fifth Discipline* and countless other publications by Senge, there are many misconceptions about his work in particular. Frequently misquoted and taken out of context, it is quite astonishing to observe that “the learning organization literature largely treats the subject as if it can be practiced independently from systems thinking” (Yeo, 2005: 374) –a stunning observation indeed, in light of what Senge preaches within the book!

Other lingering questions and criticisms are of the nature: Who is Senge’s intended audience? Is his vision too “preachy” for erudite scholars and too esoteric for their lowbrow practitioner-consultant counterparts (Friedman et al, 2001: 757; Smith,

2005)? Where does Senge's contribution fit within the domain of organizational knowledge? Is he merely a populizer or a visionary synthesizer? Is the LO concept "badly flawed" because of Senge's "apolitical assumptions" (Akella, 2003; Coopey, 1995) or is his vision and its spirit of openness more akin to the Greek notion of "polis" – "a place where governance was achieved through dialogue and advocacy balanced with inquiry" (Senge, 1990: 404)?

Variouly described as "just another wolf described in sheep's clothing" (Akella, 2003: 16), "utopian sunshine" (Coopey, 1998), and as "a rhetorical device enabling elites to assert different forms of control through a new 'normalizing discourse'" (Huzzard, 2001: 407), the learning organization is a concept caught in the crossfire of "two seeming irreconcilable research communities ... [who argue whether the idea] is a dream or a nightmare for its members" (Driver, 2002: 33).

These problems were the basis for my dissertation; namely, to dispel some common misconceptions about the LO, such as the considered judgment of many scholars and specialists that it is an atheoretical concept, a management fad, idealistically naïve, and otherwise untenable in reality.

### *Statement of Purpose*

On the basis of the problems and gaps noted above, the purpose of this dissertation was as follows:

*To develop a meta-theoretic framework for the study of learning organizations—that is, one through which we may examine the strengths*



*and weaknesses of the learning organization construct, leading to an appreciation of the LO's potential for implementation in organizations.*

In effect, this dissertation sought to “relearn” the learning organization, a response to the proposal by Akella (2003) and others within the OT/OS field that “a process of unlearning *The Fifth Discipline*” take place due to its flawed assumptions about organizations and worklife. In contrast to this opinion, it was and continues to be my belief that the LO concept is widely misunderstood, principally because it had not been learned correctly in the first place. But, more importantly, it is my hypothesis that the learning organization paradigm has an evolutionary aspect to it that echoes the sum development of organization theory itself, a field also noted for its turf wars, paradigm incommensurabilities, and contentious historical terrain (Reed, 1996). Therefore, on the basis of this supposition, I reasoned that the rapidly increasing, disparate literature on the learning organization was likely a logical extension of OT/OS’ past—a matter of history—and the issues noted above, an indicator of the growing pains of a nascent knowledge domain in its early stages of development. From these assumption, I set out to explore what I thought to be misconceptions and gaps in the literature by developing a metatheoretical framework for the study of learning organizations; one that would demonstrate that the LO concept is at least as robust as the ideas that inform it.

### *Methodology*

This dissertation is strictly an abstract work, a theoretical study whose purpose was to present a new way to understand the notion of a learning organization. Given the nature of the problem I wished to tackle, the literature review assumed the twin purposes of situating the intellectual context of my thesis as well as specifying new knowledge,

ideas, and insights developed as a consequence of my study (Patriquin, 2003). In other words, the literature review *was* the study inasmuch as it probed, processed, and portrayed what we already know about the LO in such a way as to impart new ways of thinking about the same. That is to say,

... [The] purpose of the *theoretical dissertation* is to challenge the grounds on which other acts of research take their meaning. Since all research takes its impetus from theoretical suppositions, since every researcher is a theorist, the clear place of the theoretical dissertation lies in the work of reviewing and remaking the terms which govern what other researchers have done or will do. ...

The theoretical researcher uses ideas in order to clarify or throw into doubt the utility of other concepts. She interrupts the parade of work which follows from other ideas so as to show why the route of the marchers should be changed, why the road ahead is dangerous, or why the call for parading should be challenged altogether (Day, 1993 as cited in Patriquin, 2003: 16).

In keeping with this goal, as “theoretical dissertator” I pinpointed a number of problem areas and potential misconceptions in the extant body of LO knowledge – major gaps and “ideas heretofore taken for granted” (Day, 1993 as cited in Patriquin, 2003: 16) that I sought either to fill or de-bunk as the case may be, via a process of meta-theoretical analysis of the relevant literature. These conceptual lacunae and mistaken ideas about the learning organization are itemized below in Tables 8-2 and 8-3, respectively.

Table 8-2  
Observed Gaps in the LO Literature

- 
- The absence of a clear consensus on the meaning of the LO.
  - The LO is an ideal type that has proven very difficult to operationalize and sustain in practice, especially within the context of the public sector.
  - There is a lack of cross-fertilization between the LO and OL literatures.
  - There is a preoccupation with process in the LO literature that erroneously relegates structure to a position of non-importance by inadvertence and omission.
- 
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Table 8-3  
Potential Misconceptions in the LO Literature

- 
- The LO idea is atheoretical.
  - The LO is strictly a management fad that no longer has relevance.
  - The LO is a rhetorical device to assert control over unsuspecting workers through its ‘normalizing discourse’ (Huzzard, 2001).
- 
- 

My starting point for this study was Senge’s (1990) notion of a learning organization. While there are a variety of different LO models from which to choose (e.g., Garratt, 1994; Garvin, 1993; Lessem, 1991; Pedler et al., 1991; Watkins and Marsick, 1993), Senge’s model was selected as a departure point for this study because of its extensive popularity and staying power within the realm of OT/OS discourse. That is to say, Senge often receives credit “for bringing the learning organization into the mainstream of business thinking” (Pedler et al., 1991: 196; Jackson, 2000). Inasmuch as he is cited regularly still today (Chapter 1, note 13), Senge’s perspective has sustained much more widespread interest over the years than many other of its conceptual

competitors (Jackson, 2000). Finally, because of its clear systems overtones, Senge's conception of the LO was deemed sufficiently comprehensive to support my purpose. Nevertheless, at no time was it my goal merely to write a defense of Senge or to develop a derivative of his work. Rather my intent from the onset was to find a suitable conceptualization of the LO upon which I could scaffold my discussion and subsequently develop my own theoretically grounded framework for the study of learning organizations.

Upon deciding to use Senge's LO model as a beginning frame of reference for my study, I recast his conception as an elaborate theoretical cloth made from multifarious threads of thought about "organizations, organization, and organizing" (Clegg and Hardy, 1996). In particular, I envisaged Senge's "five disciplines" –i.e., personal mastery, mental models, shared vision, team learning, and systems thinking—in the context of the OT/OS area or dominant paradigm from which each derives its theoretical foundation. Altogether, I isolated six intertwined threads of influence that I imagined to constitute the intellectual fabric of the learning organization.

As shown below in Figure 8-1, the threads of influence that defined my framework are as follows: (1) The Systems Thread; (2) The Human Relations Thread; (3) The Culture Thread; (4) The Learning Thread; (5) The Quality Thread; and (6) The Structure Thread. A brief sketch of each thread follows next.

## The Manifol d Threads Of the Learning Organization

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Figure 8-1

The *Systems Thread* examined how *Systems Thinking* informs the learning organization model. The metaphor of an organization as an open, adaptive system is a powerful influence on Senge's (1990) perspective. This thread explored the work of a number of different theorists whose respective contributions grew out of the General Systems Theory (GST) movement, and how this knowledge serves as the conceptual cornerstone of the learning organization (Senge, 1990; Smith, 2001).

The *Human Relations Thread* embodied the corpus of work that sees the organization through the lens of individual and collective behaviors and concerns. Key themes centered on group norms, motivation, leadership, empowerment, the effects of work climate on people, and organization change and development (Ott, 1996), which as a group constitute the theoretical underpinnings for two disciplines, *Personal Mastery* and *Team Learning*.

The *Culture Thread* traced the historic roots of two disciplines, *Shared Vision* and *Mental Models*. The purpose of this thread was to explore how these socially constructed artifacts shape the contours of the learning organization. Inasmuch as cultural processes

lie beneath and trigger much of what takes place in organizations, the notion that the culture of an organization is imperative to its performance (Alvesson, 1993) finds widespread support in the literature. Nevertheless, culture is an elusive, “complex and frequently misunderstood” (Davis, 1984: 1) phenomenon. The literature is rife with competing viewpoints that challenge every effort to implement and sustain the LO. The *Culture Thread* was my opportunity to explore these various perspectives on the phenomenon of organizational culture, from which I could derive an understanding how the beliefs, values, assumptions, meanings, and norms that shape and govern workplace behavior are both an outgrowth of a shared vision as well as the mental models of an organization’s individual members.

The *Learning Thread* addressed two disciplines, *Personal Mastery* and *Team Learning*. A survey of the LO literature revealed a wide variety of perspectives, no model consensus, and a deficiency of cumulative work (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Sessa and London, 2006) –conceptual problems that undermine the meaningfulness, effectiveness, and viability of the LO framework. In this thread, we considered how the protracted history of the learning organization preordains the current state of the LO intellectual landscape.

The *Quality Thread* examined the development of quality management (QM) philosophy and practices, whose deeper messages are about learning (Senge, 1994) and derive from systems thinking (Hart and Bogan, 1992; Ziegenfuss, 1993). As a result of shared values, there is a close kinship between QM and the LO, both in theory and execution (Garvin, 1993; Senge, 1994), even though QM does not typically get discussed

as a component of the LO. Nevertheless, because I regarded an appreciation of the link between constant improvement and a commitment to learning as key to the discovery and adoption of winning practices to secure an organization's long-term future, I included the *Quality Thread* in my rendering, which maps to three of Senge's disciplines: *Systems Thinking*, *Shared Vision*, and *Mental Models*.

While the design of an organization has major ramifications for its effectiveness and viability (Burns and Stalker, 1961), the structure of the LO is a topic that receives little attention in the literature. In addressing the *Structure Thread*, I purported to find out why LO writers have not embraced this important consideration as an enabler for continuous improvement (NIST, 2001b), more effectual action (Drucker, 1994), and high-quality performance (Mohrman and Cummings, 1989) work. After situating the problem both historically and within the context of current theory and practice, the *Structure Thread* juxtaposed the literatures on networks and learning organizations to see how these forms may enhance and/or inhibit the learningfulness of an organization (Berends, Boersma, and Weggeman, 2003; Lane, 2001; Senge, 1998). While the *Structure Thread* informs all five disciplines, it has its closest affinity with the discipline of *Systems Thinking*.

Table 8-4 provides a quick overview of how I related the theoretical threads to each learning discipline in this approach.

Table 8-4

**Unraveling the threads of the Learning Organization**

<b>Conceptual Threads</b>	<b>Senge's Five Disciplines</b>
A. The Systems Thread	Systems Thinking
B. The Human Relations Thread	Personal Mastery Team Learning
C. The Culture Thread	Shared Vision Mental Models
D. The Learning Thread	Personal Mastery Team Learning
E. The Quality Thread	Systems Thinking Shared Vision Mental Models
F. The Structural Thread	Systems Thinking

On the basis of this metaphor I endeavored to unravel the LO cloth to discover the conceptual fibers from which it is spun and then examine the strength of the ligature that holds the theoretical fabric together. And, by following this approach, it was my intent both to have a tool with which to trace the intellectual roots of the learning organization as well as to have a means by which to demonstrate whether or not the idea is conceptually robust and theoretically powered.

It is important to keep in mind that there is an unavoidable degree of distortion in my model formulation because it is at once a simplification device. Just as the philosophic boundaries of organization theory are not clear-cut and there is no universally accepted framework with which to survey and capture its intellectual terrain, the theoretical threads employed in this study approach are also arbitrary. Furthermore, given that the learning disciplines are “an ensemble” (Senge, 2990) –an intellectual whole not



easily disassembled into independent parts—the interaction of the disciplines and not their actions taken separately constitute the LO’s defining properties.

While it was necessary at times to mention the role of individuals in learning organizations, the framework I employed in this study is decidedly macro. Hence, its main focus was how-why LO’s behave as they do as opposed to a microperspective of organizational behavior. The disciplines, moreover, are not mutually exclusive and there is inevitable overlap because each is the product of shared assumptions about humans and organizations—a condition that is also present in my framework by virtue of associative default.

As a final point, no attempt was made in this dissertation to cover the various threads and disciplines comprehensively because each area alone could easily occupy an entire book! Rather the intent and focus was to feature a few key ideas that explain from whence the learning organization comes, in order to understand more fully the current state of learning organization theory and practice and how it is either “lacking, [flawed or otherwise] in need of ... repair” (Day, 1993 as cited in Patriquin, 2003: 16). Nevertheless, discussion length notwithstanding each chapter in this dissertation makes extensive use of explanatory notes. This is material that I felt was relevant and needed to be mentioned, however did not fit comfortably within the main flow of ideas presented in the narrative. For those readers who do not share my apparent “footnote-fetish” (Patriquin, 2003: 11), please feel free to read just the chapter and refer to the notes only on the condition that you desire further amplification or additional explication of my remarks. Nonetheless, the notes are neither filler nor superfluous fluff, and for that reason

I encourage the reader to peruse these elaborations because of the additional depth and insight they provide.

### *Hypotheses*

On the basis of the preceding discussion on *Problem Conceptualization*, *Statement of Purpose*, and *Methodology*, the working hypotheses for this study were as follows:

- H1: *The concept of the LO is still relevant today.*
- H2: *The LO paradigm has an evolutionary aspect to it that echoes the sum development of organization theory.*
- H3: *The LO paradigm is at least as robust as the ideas that inform it.*
- H4: *Misconceptions about the LO undermine the concept's theoretical importance as well as its practical efficacy.*
- H5: *The failure to engage a systems perspective is largely responsible for many oft-repeated misconceptions as well as countless failed attempts at implementation reported in the literature.*
- H6: *The network form is the most viable structure to operationalize the LO.*

Taking these propositions as my basic assumptions enabled me to unravel the LO's conceptual cloth and in doing so, work the question of from whence the learning organization comes in reverse, essentially to probe the apparent gaps and possible misconceptions I observed in the literature. Then, on the strength of my learnings, my next appointed task was to reweave the strands of past LO knowledge with new yarns of understanding to develop an enhanced framework with which to analyze and better

understand the notion of a learning organization. In the next section, we examine the results of this process of deconstruction/reinvention.

### *Findings*

By unraveling the threads of the LO's intellectual fabric, it is readily apparent that the learning organization idea has an impressive theoretical pedigree that reflects the dialectic process of knowledge development within the OT/OS field. To fully appreciate this conceptual lineage, I examined the historical contexts in which each LO discipline developed.

Given that there is no one dominant paradigm or grand theory to explain organizations (Burrell and Morgan, 1979; Clegg and Hardy, 1996; Morgan, 1996; Pfeffer, 1993; Shafritz and Ott, 1987; Shafritz and Russell, 2000), but rather a plurality of co-existing perspectives, multiple interpretive frames, and many assorted "knowledges" (Kivinen and Ristelä, 2002: 420), the underlying foundation of the LO is likewise a consequence of myriad commensurate and rival ideas. This section discusses my findings "thread" by "thread", in accordance with their order of presentation in this dissertation.

### The Systems Thread

*The Systems Thread* explored how systems thinking informs the learning organization model. For Senge in particular, the metaphor of an organization as an open, adaptive system is a powerful idea. His construct of the learning organization relies on an open systems approach to gain broader knowledge of the complex interrelationships between organizational subsystems and how they adapt to their environment.

Specifically, a systems perspective is the integrative superglue that fuses all the disciplines into a coherent body of theory and practice (Shafritz and Ott, 1996).

Additionally, it provides a framework with which to understand how learning occurs across three different levels of analysis: the individual, the group, and the organization as a whole (Sessa and London, 2006). In the absence of a systems perspective, the LO framework ceases to be a framework.

By incorporating systems thinking as an integral part of the LO concept, Senge has drawn on the work of a number of different theorists, whose respective contributions have grown out of the General Systems Theory (GST) movement. Our exploration of the related literature revealed GST to be a meaty idea with copious theoretical and practical application, an observation also noted and aptly summarized by Klir (1972) in the passage shown below:

General systems theory is considered a formal theory (Mesarovic, Wymore), a methodology (Ashby, Klir), a way of thinking (Bertalanffy, Churchman), a way of looking at the world (Weinberg), a search for an optimal simplification (Ashby, Weinberg), an educational tool (Boulding, Klir, Weinberg), a metalanguage (Lofgren) or prospectively a profession (Klir). (Klir, 1972: 15 as cited in Ziegenfuss, 1983: 104).

An important finding of this review grew out mapping Klir's (1972) view of general systems theory to the LO paradigm, a process that revealed in stunning fashion the full extent to which a systems perspective melds the five disciplines into a cogent body of theory and practice. The results of this mapping are shown below in Table 8-5.

Table 8-5

Mapping Klir’s Perspective to Senge’s Five Disciplines

<b>Klir:</b>	<b>Senge:</b>
– A way of thinking (Bertalanffy, Churchman)	Discipline 1 (systems thinking)* Discipline 3 (shared vision)
– A way of looking at the world (Weinberg)	Discipline 1 (systems thinking)* Discipline 4 (mental models)
– A search for optimal simplification (Ashby, Weinberg)	Discipline 1 (systems thinking)*
– A metalanguage (Lofgren)	Discipline 1 (systems thinking)* Discipline 3 (shared vision)
– A method for systems analysis (Ashby, Klir)	Discipline 1 (systems thinking)*
– A profession (Klir)	Discipline 1 (systems thinking)** Discipline 2 (personal mastery) Discipline 3 (shared vision)
– An educational tool (Boulding, Klir, Weinberg)	Discipline 1 (systems thinking)** Discipline 2 (personal mastery) Discipline 5 (team learning)

\* Systems Thinking Plays A Major Role

\*\* Systems Thinking Plays A Supporting Role

An interesting paradox was noted in the LO literature. Despite the importance that Senge attaches to a systems perspective, his intended message is one that apparently eludes many readers (Yeo, 2005). A case in point: In a review of the literature that examined works from 1990-2004, Yeo (2005: 374) was “astounded” to find that “the learning organization literature treats the subject as if it can be practiced independently from systems thinking.” Indeed, even on a very basic level, the patent incongruity between intent and result is quite ironic if for no other reason than the book’s given name: *The Fifth Discipline!*

Heeding the call that systems thinking receive greater functional emphasis both in the literature and as a catalyst for organizational learning processes (Griffey, 1998; Rifkin and Fulop, 1997; Yeo, 2005: 374), this dissertation allotted systems thinking a more conspicuous leading role by making its label more vanilla and giving the idea “top billing” in its approach. Though I, for one, liked Senge’s presentation and creativity in *The Fifth Discipline*, the import and meaning of a systems perspective was evidently misread, misjudged, misplaced, or otherwise misconstrued in the morass of subsequent commentary that followed his landmark book.

On many counts the *Systems Thread* is the most important strand in the intellectual fabric of the learning organization, inasmuch as it is both warp and weft of the LO cloth. In terms of its importance to the LO idea, Yeo (2005) duly submits,

Organizational learning is more than a metaphorical vision that resides in the minds of individuals. From an organic perspective, an organization can be compared to a learning system with distinctive characteristics that are able to meet the demands of its internal and external environments. As reinforced in Senge’s (1990) systemic approach in his five disciplines, learning involves a variety of contexts and paradigms involving individuals, teams, processes, structures and strategies. What is important is the interaction dynamics of these contexts that influence organizational learning (p. 379).

From the standpoint of practice, my review of the literature confirmed that the most challenging aspect of applying the LO framework has to do with the total systems perspective that is necessary for such change (Senge, 1990). Three factors in particular, were obstacles to its successful application: 1) systems thinking is hard to do because of our machine age proclivities for analysis; 2) systems thinking employs a dense vocabulary and tool set that is difficult to penetrate; and 3) we live in a complex,

nonlinear world characterized by intricate systems that are neither tractable nor predictable. This last point is especially problematic.

As we learn from complexity theory, scale matters because at each level of analysis phenomena tend to have their own emergent properties (Berkes et al, 2003). Therefore, behavior in a social system is not simply the sum of a system's parts (Wikipedia, 2006c). Likewise, the learning organization requires a new understanding of systems, one that ensues from an assumption of change rather than one of stability (Berkes et al, 2003; Jantsch, 1980; Kiel, 1994; Van der Leeuw et al., 2000).

### The Human Relations Thread

The purpose of the Human Relations Thread was to examine the theoretical underpinnings for two of Senge's disciplines, *Personal Mastery* and *Team Learning*. Core themes included prior work on group norms, motivation, empowerment, work climate, and organization change and development.

Two significant ideas about LOs emerged from my analysis of the *Human Relations Thread* and its role as conceptual antecedent to the personal mastery and team learning disciplines. First is the very optimistic notion that people have an innate motivation to learn, which inspires them to seek new knowledge and apply their learnings to organizational work. The second consequential idea has to do with the social ethos of the *Human Relations Thread* itself. Attending the recognition that the affiliation needs of people in organizations matter, organizations have sought to use teams to harness the power of synergy to accomplish enterprise goals. However, there are a number of

impediments with regard to individual motivation and group processes that challenge the personal mastery and team learning disciplines, and subsequently the realization of the LO ideal. Of those noted in the literature review, the most significant inhibitor is the absence of a receptive culture to support and facilitate those processes.

### The Culture Thread

The *Culture Thread* traced the historic roots of two disciplines, *Shared Vision* and *Mental Models*, wherein the former takes account of the deep-seated assumptions or mental images that influence how we see the world and act, and the latter is a unified perspective of the future that derives from the collective will to learn and an allegiance to a mutual cause. In view of the fact that the culture of an organization is the set of the shared beliefs, values, assumptions, attitudes, meanings, and norms that shape and govern workplace behavior, there is an obvious kinship between the LO disciplines and the notion of culture. In LO parlance, an organization's culture is an outgrowth of its members' mental models, the dynamic from which a shared vision emerges.

It was very apparent from my review of the relevant literature that organizational culture is a problematic construct. While most people have an intuitive sense of what it is, a conceptually clear, widely accepted, and exhaustive definition has been hard to come by. Perspectives vary greatly depending on one's vantage point and scholarly orientation, as evidenced by an abundance of conceptual depictions found in the literature. For those researchers who subscribe to the argument that an organization has culture, culture is a variable and the preferred style of inquiry is normal science. In contrast to this, researchers with an anthropological bent tend to see culture as a root metaphor and



employ interpretivist methods both to explore organization as a “subjective experience” and probe the “patterns that make organized action possible” (Smircich, 1983). This is a significant point for the reason that mindset fashions one’s approach to culture, i.e., whether or not it is possible for a leader to change the culture of an organization.

To grow a learning culture, management must minimize worker resistance and cultivate a safe environment for learning (Akella, 2003; Chang and Lee, 2001). However, this is easier said than done. That many projects to implement the LO framework have met with failure calls attention to a shortcoming of the model: cultures are not that easy to change nor are they the sole province of people at the top (Weick, 1993) –an observation which lends some credence to critics’ claims that the LO literature has not dealt sufficiently with the role of power, politics, and learning impediments (Akella, 2003; Coopey, 1998; Easterby-Smith et al, 1998).

### The Learning Thread

Learning within the learning organization grows out of two of Senge’s disciplines, personal mastery and team learning. *The Learning Thread* explored these mechanisms with respect to their role in defining what it means to be a learning organization. In order to probe how history augurs the current state of the LO intellectual landscape as well as to identify the key themes and ideas that variously enlighten, encourage, and encumber individual and group learning in organizations, *The Learning Thread* tapped a number of different fields for perspective.

A survey of the related literature revealed a wide variety of perspectives, a conspicuous absence of cumulative research, a tendency for parochialism and sectarianism, and a lack of theory and model consensus (Dodgson, 1993; Fiol and Lyles, 1985; Huber, 1991; Pawlowsky, 2001; Polito and Watson, 2002; Sessa and London, 2006; Smelser, 2001). The frequent disparity between core theoretical assumptions and actual experience was found to be a major source of frustration for practitioners who want to operationalize learning in their organizations (Garvin, 1993; Van Wart, 2003).

The major disputed issues were as follows: what is the nature of learning; who is the learner; what is the linkage between learning at the individual, group, and systems level; and how does organizational learning related to the performance of the organization, i.e., does learning necessarily improve performance.

It was useful to “think historically” (Fear, 2001). The study of human learning has a protracted history that both precedes present-day interest by students of organization studies and preordains the current state of the OL-LO intellectual landscape.

The way that people learn has captivated thinkers as far back as antiquity. But even with its long intellectual attraction, the longevity of interest in learning has not produced an irrefutable definition for learning let alone a unified knowledge domain.

I found that many factors have contributed to the disjointed state of the topic terrain. Alongside the many rival ideas that learning theorists suggest the professed purposes of theory making differed widely (Torraco, 1997). There was dissensus with respect to what happens when learning takes place (i.e., what theory says) as well as

disagreement vis-à-vis more fundamental questions such as “what theory is” and whether or not it is a necessary precursor to knowledge. There were even those learning experts who challenged the very idea of learning theories at all (Hilgard and Bower, 1966; Knowles et al, 1998).

These controversies were also apparent in the derivative field of adult learning (AL), a developing area of study in search of a defining theory and whose “messages of lifelong learning” and “faith in the human spirit” matched those of the learning organization (Holton and Swanson, 1998:ix-x; Knowles et al., 1998). However, just as there was no single theory to explain human learning in general, neither has a distinct and separate theory of adult learning emerged to unite the AL field (Merriam and Caffarella, 1999:286). Owing to this contentious legacy, it was no surprise that learning’s heirs, organizational learning and learning organization, are also fraught with similar conceptual ambiguities and disaccord.

I found two main challenges that flowed from history:

1. Due to the “widely recognized distinction” (Easterby-Smith et al, 1998) between learning organization and organizational learning, there is a rift in the field.
2. Due to inadequacies of language, the term ‘organizational learning’ is fraught with conceptual ambiguity.

As a result of the first challenge, the field has evolved on two separate tracks. Despite this chasm, however, the literatures did meet at a number key points—namely, organizational learning can enhance performance; learning and knowledge can have transformative powers; learning occurs in planned and unplanned ways; and the failure to

actively learn and continuously improve carries a high cost (Argyris, 1999; Davenport and Prusak, 1998; Gurteen, 1998; Hendriks and Vriens, 1999; Marquardt, 1996; Nonaka and Takeuchi, 1995; Senge, 1990).

As a consequence of the second challenge, a clear and broadly accepted definition has not yet appeared. The literature presented the learning phenomenon as occurring at different levels of analysis (Edmondson and Moingeon, 1996), which, in turn, raised concerns about the link between each level and at what point learning is, in fact, effective or beneficial organizational learning (Argyris, 1999; Huber, 1991; Vickers, 1965, 1972). Likewise, there was considerable cynicism and debate as to whether learning organizations even exist (Kofman and Senge, 1995; Redding, 1997), not to mention if they can really learn (Merriam and Caffarella, 1999; Rowden, 1996) without anthropomorphization (Kim, 1993; Popper and Lipshitz, 1998). Buried beneath the rhetoric of debate were vital questions such as: What is the basic learning unit in a learning organization? And, how does this relate to individual, team and organizational learning?

Apart from the skeptics who flatly argued that organizations don't learn—it is the persons within organizations that do (Rowden, 1996:107); others claimed an “organizational referent” (Weick and Westley, 1996) with the team as the basic learning unit of measure.

Learning in organizations is a *layered phenomenon* consisting of three interrelated levels of meanings, which range from the most atomistic level, that of the individual to the Gestalten properties of the total system—the organization at large. Three

consequential ideas that helped to elucidate and tie together the confluent threads of learning at its three levels of aggregation are cognitive constructivism (CC), social constructivism (SC), and action research (AR), as shown below in Figure 8-2.

**Learning in the Learning Organization\***

<u>Learning Level</u>	$\leftrightarrow$	<u>Source of Explanation</u>
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">LO</div> <div style="font-size: 2em; margin-right: 10px;">{</div> <div style="margin-right: 10px;">OL</div> <div style="font-size: 2em; margin-right: 10px;">{</div> <div style="margin-right: 10px;">Individual Learning</div> </div>	$\leftrightarrow$	Cognitive Constructivism
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">LO</div> <div style="font-size: 2em; margin-right: 10px;">{</div> <div style="margin-right: 10px;">OL</div> <div style="font-size: 2em; margin-right: 10px;">{</div> <div style="margin-right: 10px;">Team Learning</div> </div>	$\leftrightarrow$	Social Constructivism
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">LO</div> <div style="font-size: 2em; margin-right: 10px;">{</div> <div style="margin-right: 10px;">Learning Organization</div> </div>	$\leftrightarrow$	Collective Learning via Action Research

\* Organizational learning (OL) refers to learning by individuals and groups *in* the organization and the learning organization (LO) refers to learning *by* the organization as a total system.

**Figure 8-2**

A learning organization, by its very nature, encourages and emphasizes sustained and active learning at three levels of social aggregation: the individual level, the team level, and at the system level. Action research, together with constructivist philosophy and theory provides a framework to elucidate and tie together the confluent threads of learning at these three levels of aggregation.

Action research is a type of planned inquiry with twin purposes: (1) to promote deep learning about a social system while attempting to change it and (2) to advance practical theories about the organizational change process. Given its active disposition to learning, action research provided for individual and group learning by yielding situation-specific insights about the social system.

Organizational learning defied representation by any one model or theory. Whether or not learning is an individual or collective phenomenon is an extremely

debatable issue. Very conveniently constructivism enabled me to bridge the conceptual rift without paying absolute allegiance to any one perspective. As several authors have noted, (e.g., Palincsar, 1998; Phillips, 1995; Wilson et al., 1995) there is actually a continuum between cognitive constructivism and social constructivism, with many points in-between. Likewise, I noted a wide range of combinatory possibilities between individual and organizational learning as well.

Constructivism, while not prescriptive (Wilson et al., 1995), is useful to explain the local, fragmented specificities of learning in organizations across all three aggregative levels. In particular, it dovetails nicely with the LO idea of mental models by addressing the subjective, context-bound character of knowledge creation; it makes room for personal learning and the synergetic effects of learning together; and is in sync with the current “interpretive” movement in organization studies toward different theoretical approaches (Clegg and Hardy, 1996).

Nevertheless, action research and other such learning modalities require special skills that an organization may not have available in-house or be able to afford from the outside. Not only that, organizations may lack the maturity and courage needed for self-reflective inquiry and inquiry-oriented practices; vital processes through which they may learn and discover alternative approaches to the status quo, thus enabling them to improve their effectiveness (Chisholm, 1997b; Schmuck, 1997; Shani and Pasmore, 1985; Shani and Mitki, 2000; Watkins and Golembiewski, 2000).

## The Quality Thread

*The Quality Thread* explored the linkages between quality, quality management, and the components of a quality management approach. A brief retrospective of the past helped to place the current state of knowledge and practice in context, as I traced the advance of the quality management paradigm. Building on this discussion, I examined the symbiotic relationship between QM and LO, and how this complementarity contributes to a systemwide mindset for excellence and a shared unity of purpose to learn.

The emergence of quality as a formal management function is a fairly recent development. According to many pundits, successful organizations of the future will be those that make a commitment to quality and continuous improvement to meet world class standards of excellence (Kanter, 1995).

The advent of the existing competitive market has brought with it a variety of new requirements. First and foremost, quality is now vitally important and no longer a matter a choice (Schuler and Harris, 1992; Mische, 2001). Second, consumers demand quality; excellent organizations are those that integrate customer feedback into strategic planning and the delivery of all goods and services (Costin, 1994). Third, hypercompetition is a reality throughout most of the industrialized world (Hanssen-Bauer and Snow, 1996:413). Competitive advantage in this environment will belong to those organizations with the ability to improve, innovate, and consistently meet high-grade standards for quality goods and services (Kanter, 1995). Fourth, survival is a function of an organization's ability to learn (Marquardt, 1996; Purser and Pasmore, 1992). A prerequisite for quality to flourish

is the existence of an enabling system suchlike a learning organization (Kehoe, 1996; Rowley et al., 1998). Fifth, real transformation requires a holistic approach that is at once both broad and deep—that is, a methodology that simultaneously targets all system components (broad) and their respective underlying patterns of behavior (deep) (Old, 1995). Since every organization is a product of the way in which its members think and work together (Senge et al., 2000:19; Weick, 1969), a quality mindset must become part of the “deep structure” (Old, 1995) of the organization for therein resides the ultimate source of values and action (Schein, 1997) to change the organization in any meaningful way.

Effecting quality improvement in organizations is neither simple (Zairi, 1994) nor undemanding; rather, it is an emergent learning process that occurs over time as the entire organization works together to address quality and service levels (Sirkin and Stalk, 1990). Consequently, successful QM requires a long-term perspective, holistic thinking, strategic insight, responsiveness to external cues, a quality ethos and the readiness to challenge longstanding or dominant assumptions. Underlying these requirements, the formation of a holistic learning system is essential for collective growth and strategic renewal in the midst of widely divergent needs (Ferguson-Amores et al., 2005; Joyce et al., 1993; Mische, 2001; Palloff and Pratt, 1999).

As a structured embodiment for continuous improvement, the Baldrige quality model embraces the idea that high-performance and long-term survival is a function of the organization’s capacity to learn (Purser and Pasmore, 1992). Inasmuch as the Baldrige model is a manifestation of systems approach, it describes both an underlying



configuration for a learning organization as well as propounds an outline for quality management.

### The Structure Thread

The design of an organization has important implications for its effectiveness and long-term survival (Burns and Stalker, 1961). Today the trend is toward flatter, more horizontal, dispersed forms, i.e., networks, which are said to be faster, smarter, and more nimble than the traditional paradigm. On the basis of this widely held belief, the goal of *The Structure Thread* was to discover first, how these forms enable constant improvement and more capable action in complex social systems, and then, if there is a fit between network organization (NO) and learning organization (LO).

Despite its importance, structure is an under-appreciated idea within the LO literature. Ultimately, the failure to address the question of structure widens the gulf between theory and practice, and may indeed explain the rare occurrence of learning organizations in real-life. *The Structure Thread*, in order to address this gap, situated this problem of omission—both historically as well as in the context of current theory and practice—to arrive at a more relational, contextual, and systemic understanding of the LO.

I found that when we take structure for granted in the study of learning organizations, we are left in the end with an impoverished, incomplete understanding of both learning and organizations for three key reasons. First, to disregard the relationship between structure and process reflects an intellectual blind spot to the dual nature of the

former as both a medium and outcome (Giddens, 1984). Second, the structure of the aspiring learning organization is too important to ignore because it has the potential both to enhance and inhibit the learningfulness of the whole (Berends, Boersma, and Weggeman, 2003; Lane, 2001; Senge, 1998). Third, the cornerstone of the learning organization model is systems thinking. To not factor structure into the equation is to violate this principle and lose sight of the whole and its defining properties.

After well over a decade of study, there is a growing consensus in the academic literature that networks are an effective mechanism to facilitate learning and innovation under conditions of high uncertainty (Mandeville, 2005; Vanhaverbeke et al., 2006: 2). Given that the LO and NO are “value-driven systems” (Limerick and Cunnington, 1993) with many of the same principles, there is an obvious correspondence between both constructs. By marrying these ideas into a unified perspective, I found that we can gain both a more complete picture of the learning organization as well as an opportunity for theoretical synthesis.

There are a number of limitations with respect to the state of network knowledge. In brief, persistent “open questions” (Chisholm, 1996:216) and “semantic confusion” (Hastings, 1993:12) challenge communication and impede the emergence of a coherent knowledge domain (Ebers, 1997; Hastings, 1993; Kanter and Eccles, 1992). And, notwithstanding its apparent ubiquity in “business and elsewhere” (Mandeville, 2005: 165), the network as an abstract construct is still in its conceptual infancy (Chisholm, 1996); with learnings scattered across many fields, theoretical bases, levels of analysis, and research foci (Ebers, 1997).

According to Nohria (1992) a systematic framework or theory for “predicting what kinds of ties matter under what kinds of circumstances in what ways” (Nohria, 1992: 14) remains elusive because there is no one way “to describe, explain, and prescribe network as an organizational form” (Li, 1998: 829). Besides a general lack of consensus on what comprises an optimal network structure once it has formed, there is also a debate in the network literature on how network structures facilitate the achievement of desired outcomes for their members (Vanhaverbeke et al., 2006: 3). Moreover, terminological confusion has likewise given rise to tension between the concepts “network organization” and “organizational networking” –a situation which parallels the “widely recognized distinction” between LO and OL, a problem that has long precluded the development of a unified body of knowledge on learning within the OT/OS field.

Last but not least, an interesting outcome of the superconnectivity phenomenon described previously in this chapter (i.e., Chapter 7) has been the emergence of a widely held technocentric belief that “The network is the computer. Due to similarities that cut across concepts, goals, assumptions, and language, the notions of ‘network organization’ and ‘electronic network’ have tended to converge such that the term ‘network’ frequently calls to mind something closely synonymous with the new forms of distributed or virtual organization made possible by ICT (Hastings, 1993; Nohria and Eccles, 1992). Nevertheless, the two expressions are not always equal nor is digital technology a prerequisite for the ties that link actors in a social system (Nohria and Eccles, 1992).

While advances in digital technologies can and do play an important role in shaping network organization, organizing to do things together is a decidedly human (Lipnack and Stamps, 2000: xxiv). Ultimately it is the interactions and relationships among people that impart meaning to the networks in which they participate.

According to Morgan (1996, 1998), any given metaphor is simultaneously “a way of seeing and not seeing.” As a result, the mental imagery of the network as computer metaphor, while able to engender valuable insight is by itself “incomplete, biased, and potentially misleading” (Morgan, 1998: 5) because it obscures the importance of an organization’s social dimensions (Nohria and Eccles, 1992; Stoll, 1995). That is to say the drawback of the computer as network metaphor is the error of omission that results by casting the spotlight only on technology. Clearly, the imperative for constant change and flexibility demanded by today’s turbulent environment commands consideration of “hard” *and* “soft” elements alike (Hastings, 1993; Skyrme, 1999) –to wit, technological *and* psychosocial factors that together must answer the question, what is a network if it is to serve as a way to operationalize the LO.

### *Conclusions*

According to Day (1993), a theoretical dissertation is “at once a work of deconstruction and invention, in which old orders are dismantled and new possibilities for seeing and acting are made convincing to eligible readers” (Patriquin, 2003: 17). It was the purpose of this dissertation to develop a metatheoretical framework with which to analyze and better understand the notion of a learning organization—a lofty goal that came to fruition by following the deconstruction–invention formula proposed by Day.

The deconstruction–invention process in this work transpired as a metaphor. Senge’s (1990) conception of a learning organization was recast as an ornate cloth made from manifold threads of thought about organizations, which I sought to unravel in order to discover the intellectual fibers from which it is spun, and then rewove into something new, by combining extant strands of knowledge with new yarns of understanding.

I found varying degrees of support for my “working hypotheses,” which constitute the lessons I learned from this lengthy intellectual exercise. Each is briefly discussed below.

**Lesson 1: The LO concept is still relevant today.**

The most decisive factor for gauging the relevance of an idea, such as the learning organization, is to determine who is talking about it and who is writing about it. Within the public administration literature, a number of “thought leaders” have weighed in, attesting to the value of the LO as a compendium of the best practices for our era (Van Wart, 2003) and as a theoretical complement to the values of New Public Management (Reschenthaler and Thompson, 1997). More recently, Moynihan (2005) noted the untapped potential of the LO literature to help identify and correct the problems of managing for results.

However, a few noteworthy articles alone are not adequate to estimate the significance of a particular idea. With this in mind, I conducted a rudimentary query of the [Social Science Citation Index Database](#) in March 2006 to get a sense of the impact of Senge’s (1990) widely read book on the subject of LOs, *The Fifth Discipline*. Though this

exercise lacked the rigor of a formal study, it provided me with very compelling evidence of the import of the LO idea, by indicating in a very simple way the incidence and frequency of citations to Senge's work within the published work of other authors, both scholars and practitioner types. While a full account of this litmus test is detailed in Chapter 2, Note 1, a few highlights are reiterated here as an illuminating demonstration of the LOs relevance.

My first query returned 1,191 articles by other authors for the search parameter, "cited author: Senge P". Then, narrowing the search field strictly to "The Fifth Discipline," returned 951 article titles by writers other than Peter Senge who referenced Senge's work. What was even more interesting to note, the first fifteen hits on the results screen presented a diverse cross-section of people and publication outlets, which included a wide gamut of academic journals in fields as diverse as organization studies, management, healthcare, psychology, and tourism.

Additional support for the relevance of the LO concept was provided by Jackson (2000), who conducted a "fantasy theme analysis of Senge's learning organization" to determine what it was about Senge's conception in particular that has sustained such widespread interest in his vision. Jackson determined that "the dramatic qualities of his socially rooted vision" coupled with Senge's "adept abilities as a sanctioning agent" is what makes this specific conception of the LO stand out from all others.

In the course of doing my research, it was also interesting to come across an informal survey published in the December 2005 issue of *Strategy + Business E-News*, a popular business magazine distributed by Booz Allen Hamilton, which designated the

learning organization as “one of the ten most enduring ideas” (Kleiner, 2005) of our time. In both the practitioner’s list and that of the “thought leaders,” the learning organization was ranked 2<sup>nd</sup> and 6<sup>th</sup>, respectively.

According to Kleiner (2005), every good “business idea has five key qualities”:

1. Timeliness: it addresses, in a new, compelling way, an issue that is important to people right now.
2. Explanatory power: it reveals the hidden patterns and interrelationships that shape the phenomena we see in a way that other theories or disciplines have not fully explained.
3. Pragmatic value: it can be put into practice to produce replicable results.
4. Empirical foundation: it can be tested with real-world experience, and ideally with measurable data, and can survive theoretical challenge.
5. Natural constituency: it has a group of key people who are ready to hear it and an ability to inspire followers (Kleiner, 2005: 6).

Unlike many other popular management ideas whose time has come and gone, the notion of the LO lingers on, most likely because of its natural constituency, timelessness, and explanatory power.

**Lesson 2: The LO paradigm has an evolutionary aspect to it that echoes the sum development of organization theory.**

The process of tracing the historic roots for each LO discipline confirmed this proposition many times over. For example, the literature review revealed that the theoretical foundation of the systems thinking discipline grew out of the General Systems Theory (GST); the disciplines of personal mastery and team learning traced their parentage to the Hawthorne studies, human motivation theory, small groups inquiry, OD,

adult learning theory, as well as from a host contributions by luminaries such as Mary Parker Follett (1919; 1926; 1937), Chester Barnard (1938), Coch and French (1948), David McGregor (1960), Rensis Likert (1961), among many others; and last but not least, the mental models and shared vision disciplines have roots in the organizational culture literature.

Likewise, the literature review demonstrated that the LO concept is not a new idea (Garratt, 1995; Love et al, 2000). Organization theorists have long contemplated learning in organizations. The organization literature is rife with examples of scholarly work with a learning bent, such as: organizations as open, adaptive systems (e.g., Burns and Stalker, 1961; Cyert and March, 1963; and Emery and Trist, 1965); work that examined the linkages between learning, improvement and design (e.g., Trist and Bamforth, 1951; Pasmore, 1988; Taylor and Felten, 1993; Van Eijnatten, 1993); inquiry and problem solving as a source of knowledge creation and group development (e.g., Lewin, 1946, 1951); and organizational culture as the accumulated shared learnings of a given group (Schein, 1985), to name a few. Indeed, fifty years or more of research points to the early beginnings of a knowledge domain on learning in organizations alone. All told, the theoretical pedigree of the LO framework reads like a who's-who and what's-what of OT/OS. As the masterful synthesizer that he is, Senge saw the connections among these assorted concepts, and then pulled them together into his dramatic vision of the LO.

### **Lesson 3: The LO paradigm is at least as robust as the ideas that inform it.**

The assertion that “the LO paradigm is at least as robust as the ideas that inform it,” grew out of my reaction to the fault line that divides the intellectual landscape of



learning in organizations into two separate research communities. Legend has it that this dichotomy became especially obvious following a keynote speech by Peter Senge, at a meeting of the Strategic Management Society's Toronto conference held in 1992.

According to three conference attendees,

After a keynote speech by P. Senge on the "learning organization," an informal poll of participants pointed to the existence of two groups: academics who thought the address to have been mere "preaching," and practicing managers and consultants who "loved" it (Friedman et al, 2001: 757).

In their subsequent portrayal of the differences between the two groups, Friedman et al (2001) referred to this dichotomy as a fundamental break between "skeptics and visionaries," which led me to wonder if this palatable distinction was just a polite euphemism to describe the dispute between two rival factions, the erudite scholars and their lowbrow practitioner-consultant counterparts? Other distinctions such as the practice focused writing of the LO versus the "skeptical, scholarly literature" of OL (Argyris, 1999: 1) also lent an air of elitism to the latter that at the same time implied that the former was somehow less scholarly and less important. The more I thought about it, the more I felt a need to disprove the misconception that the LO is atheoretical and geared solely for a practitioner audience.

As we learned in Lesson 2, the LO idea has quite a theoretical pedigree. Lesson 2 demonstrated quite emphatically that the LO idea is grounded in the acclaimed contributions of many brilliant thinkers and researchers that together helped to define the intellectual landscape of the OT/OS field. As I have argued many times in this paper, the learning organization paradigm has an evolutionary character that reflects the sum

development of organization theory itself, because it is sewn from the inspired thoughts, pioneering theories, and innovative insights of many contributors to create an integrative vision of what an organization could be and/or should be when learning is its guiding ethos. Consequently, the LO concept is as robust as the ideas that it draws upon, which in this case, is very impressive indeed!

**Lesson 4: Misconceptions about the LO undermine the concept's theoretical importance as well as its practical efficacy.**

The literature review pointed to a number of misconceptions about the LO that come up time and again. In particular, three such common myths are as follows:

1. The LO idea is atheoretical.
2. The LO is strictly a management fad that no longer has relevance.
3. The LO is a rhetorical device to assert control over unsuspecting workers through its 'normalizing discourse' (Huzzard, 2001).

We have already dispelled some of these erroneous ideas with amplification of the first three lessons. What remains to be addressed is the issue of power in organizations.

Many critics question the authenticity of the LO model because its associated literature has failed by and large to discuss the role of politics and control in organizations, save a few exceptions such as Coopey (1995; 1998), Dovey (1997), Easterby-Smith et al. (1998), Huzzard (2001), and Akella (2003: 16). On one level I would have to agree with these esteemed authors; many LO authors do not address these issues *directly*. But, in the main, I would have to disagree with a blanket generalization of the LO paradigm as failing to address these factors.

For example, the Sessa and London (2006) text, *Continuous Learning in Organizations: Individual, Group, and Organizational Perspectives* does not have a single entry in its subject index for “authority,” “control”, “politics” or “power”. However, these authors do discuss the roles of “empowerment,” “management,” “leadership,” “performance appraisal” and “reward systems” within the learning organization. And, inasmuch as these authors adopt a “nested inter-penetrating systems” perspective (Byrne, 2001), their model does in fact allow for the LO as an entity “within the institutional framework of society” (Akella, 2003: 16).

In other words, because Sessa and London (2006) conceive the LO as a complex system that contains other systems and is a member of some larger system or network of systems (Allen and Star, 1982; Hurst, 1995; Kast and Rosenzweig, 1985; Ziegenfuss, 1989), they have not discounted the influences that exist either within the organization itself or beyond its boundaries. And, as Jackson (2000: 196) has observed, this is what systems thinkers do—they position organizational problems in a broader societal context, just like Senge who argues,

Organizations are microcosms of the larger society. Thus, at the heart of any serious effort to alter how organizations operate lies a concern with addressing the basic dysfunctions of our larger culture (Kofman and Senge, 1993, p. 7).

In point of fact, an open systems approach has long recognized the institutional framework of society in which organizations exist, as demonstrated by Table 8-6 below. While the list shown in Table 8-6 is not exhaustive and certainly not the only way to think about the environment, it does describe some of the ambient influences that exist outside the boundaries of organizations (Ziegenfuss, 1989: 42-43).

Table 8-6  
 Characteristics of Organizational Environment

Cultural:	Includes the historical background, ideologies, values, and norms of society.
Technological:	Includes the level of scientific and technological advancement in society.
Educational:	Includes the general literacy level of the population, e.g., the proportion of people with a high level of professional and/or specialized training.
Political:	Includes the general political climate of society, the degree of concentration of political power, and the nature of political organization (i.e., degrees of decentralization, diversity of functions, etc.)
Legal:	Includes constitutional considerations, nature of the legal system, jurisdictions of various governmental units, and specific laws concerning formation, taxation, and control of organizations.
Natural Resource:	Includes the nature, quantity, and availability of natural resources, including climatic and other conditions.
Demographic:	Includes the nature, number, distribution, ages, and sex of human resources available to society.
Sociological:	Includes class structure and mobility, definition of social roles, and the nature of the social organization and development of social institutions.
Economic:	Includes general economic framework (type of organization—public versus private ownership), centralization or decentralization of planning, the banking system, fiscal policies, and the level of investment in physical resources and consumption characteristics.

Adapted from: Kast and Rosenzweig (1985) and Ziegenfuss (1989)

As a second example of a representative work on the LO, if not *the representative work* on the LO: Senge (1990) states his assumptions about the role of politics and control in a learning organization quite unequivocally—he takes a very pejorative view. He characterizes power as the “essence of authoritarianism ... the wielding of arbitrary [control] over others” and politics as “as a perversion of truth and honesty” and “the first of many ‘givens’ challenged by prototype learning organizations” (Senge, 1990: 273-

274). For Senge, the antidote for “internal politics and game playing” is a shared vision that demands “openness” and fosters an organizational climate that places “merit” above “politics.” In this way, his vision and its spirit of openness approach the Greek notion of “polis” – “a place where governance was achieved through dialogue and advocacy balanced with inquiry” (Senge, 1990: 404). Indeed, the discipline of team learning relies on the complementary processes of dialogue and discussion to help team members learn and arrive at a shared appreciation of complex issues, events, and courses of action (Senge, 1990: 10, 247-249; see Chapter 3, Note 15).

Moreover, it is also important to keep in mind the role of leadership within the LO framework. For Senge (1990), the leader is a “steward, teacher, and designer” with the charge to rouse everyone to learn together and continuously expand their capacity to create a bright organizational future. Senge maintains that such a perspective of leadership is imperative because,

When all is said and done, learning organizations will remain a “good idea,” an intriguing but distant vision until people take a stand for building such organizations. Taking this stand is the first leadership act, the start of inspiring (literally “to breathe life into”) the vision of learning organizations. In the absence of this stand, the learning disciplines remain mere collections of tools and technique—means of solving problems rather than creating something genuinely new (Senge, 1990: 340).

Finally, before leaving Lesson 4, I would like to address the criticism that the LO “masks the capitalists’ true intention of sustaining their regime through the collaborative and creative participation of workers” (Akella, 2003: 15) or alternately, that the LO is a rhetorical device to assert control through its ‘normalizing discourse’ (Huzzard, 2001). The LO is an ideal type, a linguistic creation (Kofman and Senge, 1993) –hence, it does

not exist in reality. There is no such thing as a learning organization (Ibid). Furthermore, the LO was never intended to be a descriptive vision; it is a normative vision (Jackson, 2000: 206), and Senge makes no apology for that. In addition, he is well aware of its potential misuse, as he explains in the passages shown below.

The learning organization is a thing we create in language. Like every linguistic creation, this category is a double-edged sword that can be empowering or tranquilizing [or oppressive and/or controlling]. The difference lies in whether we see language as a set of labels that describe a pre-existing reality, or as a medium in which we can articulate new models for living together. ...

We are taking a stand for a vision, for creating a type of organization we would truly like to work within and which can thrive in a world of increasing interdependency and change. It is not what the vision is, but what the vision does that matters (Kofman and Senge, 1993: 16 as cited in Jackson, 2000: 205-206).

Thus, in the final analysis, it remains up to the organization that aspires to be a learning organization—be it capitalist or socialist—to decide what a learning ethos means for them.

**Lesson 5: The failure to engage a systems perspective is largely responsible for many oft-repeated misconceptions as well as countless failed attempts at implementation reported in the literature.**

The failure to engage a systems perspective is largely responsible for many failed management initiatives (Ackoff, 1974; 1998) and the learning organization is no exception (Yeo, 2005). Clearly, there are many misconceptions about what the LO is and what it is not. For example, contrary to one common misconception, Lesson 4 demonstrated how a systems perspective can enable the LO to address the role of politics and control in organizations, as well as its position “within the institutional framework of

society” (Akella, 2003: 16). But, of course, a self-professed LO that does not engage in systems thinking is not an LO at all.

What then is a “true learning organization”? It is an organization that engages all five disciplines in an unending quest to enhance its capacity to design its future (Shafritz and Ott, 1996: 490). Senge (1990) informs us many times throughout *The Fifth Discipline* that the five disciplines must develop as an ensemble, primarily because the fundamental defining properties of the whole (i.e., in this case the LO) derive from the interactions of the parts (i.e., the disciplines), not their actions taken separately (Ackoff, 1974; 1998). We see these ideas echoed in the learning organization’s attentiveness to holism and interconnectedness.

The LO framework, moreover, is an organic system (Burns and Stalker, 1961) that is capable of both adaptive and generative learning behaviors, which means that it changes both in accordance with and in anticipation of its environment. This capability to adapt and innovate is what enhances an organization’s capacity to create its future.

In Chapter 2, I argued (p. 55),

If the LO framework is to avoid that same dismal destiny [of other failed management initiatives], aspiring implementers of the learning organization must engage in real and unabridged systems thinking, not an abbreviated, bastardized, or condensed form of it. This means taking the time and trouble to see “the forest *and* the trees” (Senge, 1990: 127); to engage in genuine, unadulterated systems thinking is to move beyond the domain of how things work, i.e., knowledge, to the realm of why things work as they do, i.e., understanding (Ackoff, 1981; Hall, 1994).

So, in sum, the conceptual glue of the LO is systems thinking for a reason. It is the adhesive that holds all the other disciplines together in a coherent body of theory and practice (Shafritz and Ott, 1996).

**Lesson 6: The network form is (likely) the most viable structure to operationalize the LO.<sup>1</sup>**

By unraveling *The Structure Thread*, I learned that there is an obvious correspondence between network organizations (NOs) and LOs. As a consequence of this correspondence, it is possible to envisage an outline of the learning organization as an organic model with many of the same favorable properties as that of a network—to wit, self-organizing, flexible, adaptable, holographic, egalitarian, decentralized, and so on—not seen to the same extent in other structural forms (Hastings, 1993; Hellriegel et al., 1992; Kanter and Eccles, 1992; Örténblad, 2002; Rockart and Short, 1991). Many researchers, moreover, note the innate capacity of networks to learn (e.g., Mandeville, 2005; Podolny and Page, 1998; Powell and Brantley, 1992; Uzzi, 1997), an observation which of itself suggests an affinity between NOs and LOs.

For example, as conditions vary, networks learn and innovate as needed (Baker, 1992; Jarvenpaa and Ives, 1994; Symon, 2000). In the same way, the LO is capable of both adaptive and generative learning behaviors. Thus, there is a natural fit between the two which suggests that the LO is the normative vision for the NO and the NO is a viable structure with which to operationalize the LO. Furthermore, given that the LO and NO are both “value-driven systems” (Limerick and Cunnington, 1993) that coalesce around

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<sup>1</sup> This “conclusion,” which is currently based on theoretical analysis, is a good candidate for empirical testing.



many of the same principles, this correspondence can be exploited to bridge the structure-process gap found in the OL-LO literature (See Chapter 7). In particular, by marrying these compatible concepts into a unified perspective, we can gain a better, more complete picture of the learning organization through which we may address the recursive relationship between LO structure and OL processes.

### *New Directions*

Where do we go from here? That is the \$64,000 question (higher if you factor in inflation). In order to answer this question though, let me first reiterate what it is that I have done in this dissertation over the course of some 370 pages of narrative.

My stated purpose was to develop a metatheoretical framework for the study of learning organizations, a goal that I decided to pursue in order to address a number of gaps and flawed impressions I perceived to exist in the OL-LO literature. As the title of my dissertation suggests, I felt there was a need to “relearn the learning organization” as it were, principally because we did not get it right the first time. Consequently, my decision to write a theoretical dissertation hinged on three factors:

1. I wanted to propose a new way to look at the stock of knowledge regarding the learning organization.
2. I wanted to create an integrative framework for both bodies of work (i.e., LO and OL), as Lundberg (1996) said was possible.
3. I wanted to (re-) commence a scholarly conversation and (re-) open research pathways for further work that looks at the inherent difficulties of operationalizing the meaning of the learning organization.

With this in mind, I foresee a number of new directions with which to go from here. First and foremost, I find it troubling that there is such a wide intellectual and cultural gulch between the LO and OL communities. My dissertation, inasmuch as it is a demonstration that the LO idea is conceptually robust and theoretically powered, is a first step in bridging this gap. There is a clear need for other “pracademics” to take up the OL-LO gauntlet and seek further opportunities for synthesis rather than division.

Related to this first call to arms is another clarion call: there is a clear and present need to take another look (or a first look) at *The Fifth Discipline*, or any other frequently cited work for that matter. As I was doing my research, I was astounded (to borrow a word from Roland Yeo) to discover so many misquotes, misconceptions, and misreads of Senge’s vision. Some were so blatant as to suggest that the perpetrator of the error was basing his or her ideas on second-hand accounts rather than going directly to the source. This is unfortunate for a couple of reasons. Aside from missing an opportunity to read a very interesting book, “ontology matters” (Fleetwood, 2005: 198). If our assumptions are flawed, everything that follows therefrom will be flawed as well. As researchers, we have a professional responsibility to check our facts and examine our “theories-in-use” (Argyris and Schön, 1996).

Stepping off my soapbox for a moment, I’d like to make some concrete suggestions for future research. A familiar lament regarding the LO literature is “the lack of a theoretically derived measure of the construct” (Yang, Watkins, and Marsick, 2004: 31). Heeding the demand for a validating measure of the LO, Yang, Watkins and Marsick (2004) developed a 7-factor multidimensional measure of the LO called “Dimensions of

the Learning Organization Questionnaire.” The unique feature of this approach is that it integrates people and structure, which sounds promising in light of the structure-agency problematique discussed in Chapter 7 of this dissertation. In developing their instrument, the authors observed an underlying pattern of learning activities in their target organization; however, they noted that additional studies are needed to confirm the validity of the dimensions identified. These researchers also suggested that additional variables be included to get a more comprehensive understanding of the dimensions of the LO. Clearly, there is an opportunity here for some very needed cumulative research.

A second promising area for additional research would be to use the *Criteria for Performance Excellence* (NIST, 2001b; 2006) as set forth by the Baldrige National Quality Program in a comparative study of two professed learning organizations. Because the Baldrige criteria suggest an idealized design for a high-performance learning organization, comparison against this ideal type and between study cases may yield a more lush understanding of a learning organization than a single case study alone. Pictured below is a general schematic for such a proposed research design.

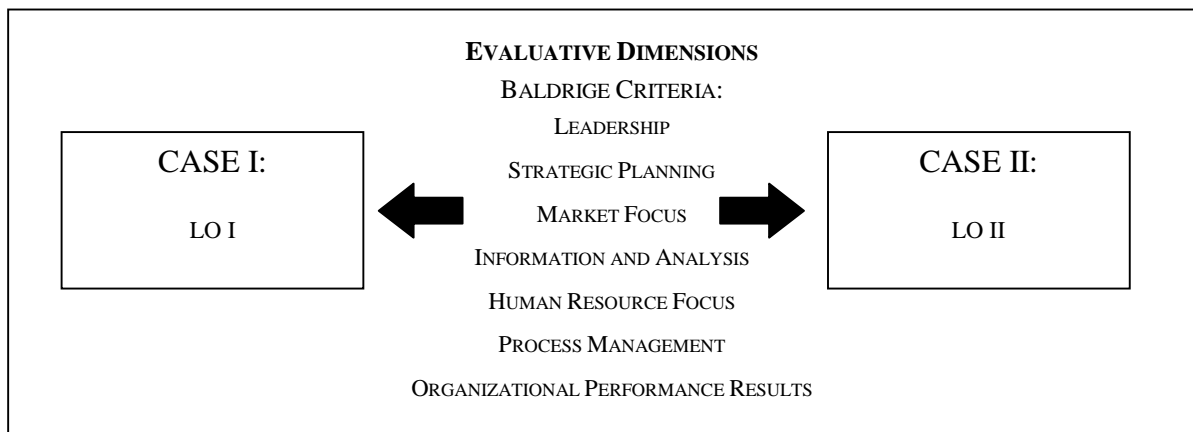


Figure 8-3

Third, alongside scholarly investigations into learning impediments, there is also a need to examine the structures, processes, and conditions that bring about or enable productive learning (Argyris, 1999: 6). Tools such as organizational network analysis (ONA) have been reported to illuminate the character of information exchanges among people, from which it is possible to “identify and leverage knowledge brokers and boundary spanners, and to integrate cliques, bottlenecks and isolated groups” (Foster and Falkowski, 1999: 53).

The most salient reason for building a learning organization is the requirement for lifelong learning that we all face, as individuals and as members of groups and organizations, to successfully participate in today’s ever-changing complex world. According to Kettl (1994), there are four key reasons for welcoming and installing the learning organization concept within the public sector: (1) the looming end of bureaucracy as we know it, due to the need for faster, more responsive, less costly (i.e., flatter) organizations; (2) increased government outsourcing and reliance on external expertise, which has caused the affected bureaus to become more like networks; (3) declining confidence in both centralized solutions and the staff tasked to oversee change management; and (4) a greater need for localized problem resolution, thanks to the speed of change, decentralization of knowledge within organizations, and customization required. Others, such as Reschenthaler and Thompson (1997), note a congruency between the performance-oriented values of New Public Management (NPM) and the normative vision of the learning organization, which they say can work together to transform the public sector and from which it becomes possible to effect real change.

Nevertheless, in spite of these ripe and enabling conditions for adoption, the learning organization has not flourished as one might hope, because of conceptual difficulties inherent to the concept itself and the innate challenges of operationalization within the public sector. This dissertation has made an important first step in clarifying what the learning organization *really* means. More research is needed at this time, however, to address the challenges of implementation. In particular, how do we sustain momentum over the longer haul to balance the “dance” between development processes (i.e. the five disciplines) and the limiting processes of change (Jackson, 2000: 208; Senge, Kleiner, Roberts, Roth, and Ross, 1999)? As Van Wart (2003:723) states, “the challenges are steep ... but it is certainly a worthy goal.”

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**VITA**  
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**EDUCATION:**

- ❑ The Pennsylvania State University, Middletown, Pennsylvania, Ph.D., Public Administration, May 2007.
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- ❑ Long Island University, C.W. Post College, Greenvale, New York, Bachelor of Arts (*cum laude*), Mathematics, October 1977.

**ACADEMIC AWARDS & HONORS:**

- ❑ The Pennsylvania State University, Middletown, Pennsylvania, Graduate Assistant, August 1998 – May 2000.
- ❑ *Pi Alpha Alpha*, the National Honor Society in Public Affairs & Administration, April 1996.
- ❑ The Pennsylvania State University, State College, Pennsylvania, Bronze Award (Third-placement), Tenth Annual Graduate Research Exhibition, March 1995.
- ❑ Long Island University, C.W. Post College, Greenvale, New York, Full Academic Scholarship, September 1973 – June 1977.

**PROFESSIONAL EXPERIENCE:**

- ❑ Bartell Healthcare Center, Mechanicsburg, Pennsylvania, Chief of Business Operations, (September 2003 – present)
- ❑ Antioch University/McGregor, Yellow Springs, Ohio, “Virtual professor”/Committee Member, Individualized Master of Arts Degree Program, (March 2003 – August 2006)
- ❑ The Pennsylvania State University, Middletown, Pennsylvania, Adjunct Instructor (August 1995 – December 2000)
- ❑ Southern Public Administration Education Foundation, Inc., Harrisburg, Pennsylvania, Associate Editor, *Public Administration & Management* (January 1996 – present)
- ❑ U.S. Navy Fleet Material Support Office, Mechanicsburg, Pennsylvania, various jobs held, including Operations Research Analyst/ Computer Specialist/Trainer (June 1979 – July 1995)

**PROFESSIONAL CERTIFICATIONS:**

- ❑ The Pennsylvania State University, Middletown, Pennsylvania, Certificate in Training and Development, awarded by the School of Behavioral Sciences and Education, November 2000.

**PUBLICATIONS:**

- 2003 *PRINCIPLES AND PRACTICES OF PUBLIC ADMINISTRATION* (With co-editors Jack Rabin and Robert Munzenrider). New York: Marcel Dekker.
- 2001 “Training’s New Role in Learning Organizations,” *INNOVATIONS IN EDUCATION and TRAINING INTERNATIONAL*, 38(4), pp. 354-363.
- 2000 *PUBLIC BUDGETING LABORATORY: INTERACTIVE STUDENT WORKBOOK*. (With J. Rabin, B. Hildredth, G. Miller, and R. Munzenrider). Georgia: Carl Vinson Institute of Government, The University of Georgia.
- 1999 “A Marriage of Learning and Doing: Multimedia and the Public Budgeting Laboratory,” *PUBLIC ADMINISTRATION QUARTERLY*, 23(1), pp. 77-103.
- 1998 “Information Systems Outsourcing: A Literature Review and Agenda for Research,” *INTERNATIONAL JOURNAL OF ORGANIZATION THEORY & BEHAVIOR*, 1(1), pp. 17-44.

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