

12-1-1993

A Model of Organizational Learning and Its Application to the Realities of Public Sector Organizations

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A MODEL OF ORGANIZATIONAL LEARNING

AND ITS APPLICATION TO THE

REALITIES OF PUBLIC SECTOR ORGANIZATIONS

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DECEMBER, 1993

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PREFACE

A personal learning journey

My interest in organizational learning began in the spring of 1992 after a dialogue with Carol Agocs, an organizational behaviour professor in our Master's in Public Administration (MPA) program at the University of Western Ontario. I had recently developed, for a research methods course, an empirical research framework on motivation of employees in public administration. After finding various measures of motivation, I found that my own assumption about motivation was that a motivated person is one who is interested in learning. This led Carol to suggest that perhaps this is where I should focus my attention for this research project. I found this appealing: I had a longtime interest in the growth and development of people. Ontario's Management Board Secretariat had just recently released a draft discussion paper on something they called "the learning organization". Thus my journey began.

The outcome has been something quite different than what I expected.

I found a subject that seemed at once to excite people, but at the same time perplex them. As a member of an informal group of employees in the Ontario Public Service interested in customer service who get together for a brown bag lunch every few weeks, I like my friends, thought this might have something to do with customer service, but nobody could clearly tell us what it was or how it works.

Increasingly, I found public administrators talking about organizational learning or an idea that seemed to be very closely linked to it, "reinventing" organizations. In fact, both subjects were billed as topics for this summer's Institute of Public Administration Conference.

I then began a cursory review of the literature on organizational learning in public sector settings. I found that it seemed to be realistic, to be addressing real and important problems facing government, problems that taxpayers and public administrators should be concerned with like - the high school drop out problem (Richards and Shujaa), energy conservation (Daneke) and eradication of smallpox (Hopkins). This, I thought, was important. I still do.

Various people who considered themselves as practising organizational learning were consulted. Literature on the general topic of organizational learning was reviewed.

My own life and work experiences were reflected upon. In thinking about learning situations, I thought about my personal experiences as a spouse, hopeful parent, friend, uncle, homeowner, landlord, traveller, volunteer, camper, instructor and student.

(ii)

I also reflected on learning from my work experiences in business and from friends and family who own their own businesses. My experience in government over the last twelve years was also a rich source of material for my thinking. I've been in various, policy development, financial advisory, program management, negotiation, and consultation roles with the same public sector organization, but working closely with a range of other public sector organizations (municipalities that are well managed/poorly managed; urban/rural; empowering/stifling). I've worked in a range of organizational settings i.e. field offices/head office; loose/formal structures; innovative/defensive environments).

As I read, reflected and discussed the concept more, I also began to develop a sharper awareness of the assumptions about the world that I carry around in my own head. Of course, these ideas also began to influence my approach to my day-to-day work. I found that indeed the ideas do work in practise. The attached Appendix A documents what I consider to be an organizational learning approach to a policy development piece of work that I've been part of over the course of the last sixteen months - about the same period of time that I've been thinking about organizational learning.

I also began to discuss ideas about what I thought were tenets of the concept with members of the M.P.A. program. Professors and my fellow students seemed interested, but wondered how it might work in a public sector organization. When the discussion turned to my research interest, my curious public administration practitioner friends in the group would ask "could you send me a copy of that", which was usually quickly followed by "once you've figured it out!"

Well, I think I've figured it out. At least for the moment. I know my thinking on what it is and how it works will change as I reflect further on it in my own day-to-day life experiences.

I hope to continue to learn about organizational learning. I hope you will too.

CURRY CLIFFORD
Toronto, Ontario
September, 1993

A NOTE OF THANKS TO TWO CHAMPIONS OF LEARNING

My investigation of the actual application of organizational learning in public sector organizations began with discussions of the concept with staff from the Ontario Management Board Secretariat (M.B.S.) who were developing a discussion paper, Towards A Learning Organization: A Discussion Paper on Education, Training and Development in the Ontario Public Service. I'm indebted to Brian Quin, manager of this project. Brian, who epitomises the advocacy combined with inquiry style that good learners have developed, was a remarkable resource as well as a source for enthusiasm for carrying on with a research interest, which I began to doubt at several points, would lead me anywhere.

My investigation began to gel when I sat down with my research advisor, Martha Maznevski. Martha was an elementary school teacher before returning to university to complete her doctorate in organizational behaviour at the University of Western Ontario's Business School. She had done some work in the field and, important to my focus, would be teaching in the M.P.A. program. Martha allowed me to think out loud, posed the right questions at the right time, and encouraged me to reflect on my own thinking. Her enthusiasm as an influence in encouraging my continued learning about learning can not be overvalued.

CURRY CLIFFORD

INTRODUCTION

A. THE PURPOSE OF THIS RESEARCH PROJECT

The literature and practise base for organizational learning is weak. It is going off in all different directions. Some ideas are not being captured. At the heart of these issues appears is a poor definitional framework. The purpose of this research project then, is to try to move the dialogue along to more fruitful ends by developing a definition and a model of organizational learning and exploring how it might work generally in any organization and specifically in public sector organizations.

From my thinking to date, I have arrived at the following definition of organizational learning:

the improvement in organizational effectiveness through a continuous process of designing and using systems that give people in the organization knowledge, rewards, information and power to do a quality job collecting and interpreting information about the organization's environment, including information about the consequences of the organization's actions on its environment, and applying understandings gained from this process to the improvement of these systems.

Juxtapose this definition against the "developed model of organizational learning", illustrated in Figure 3 at page 26. One will undoubtedly wonder whether this definition, albeit lengthy, is a grand simplification. It is. However, to gain an understanding of where I am going with this paper (and where I am coming from), I believe the reader deserves to know, in simple terms, my assumption about what the concept means.

Why is it argued that the literature and practise base for organizational learning is weak? The next couple of pages answers this question.

B. OVERVIEW OF THE LITERATURE ON ORGANIZATIONAL LEARNING IN PUBLIC SECTOR ORGANIZATIONS

From a review of the literature, six observations quickly emerge.

First, very little has been written about organizational learning in general, let alone about organizational learning in public sector organizations. In fact, research earlier this year by four University of Western Ontario (U.W.O.) professors revealed that there were only fifty-four articles found on the general subject of organizational learning (as identified through a search of the Social Sciences Citation Index (SSCI) on Subjects).

I located only three other general items on organizational learning. Two of the general items were articles that appeared in the Harvard Business Review. One, by Ikujiro Nonaka titled "The Knowledge Creating Company" appeared in 1991. The other, by David Garvin titled "Building a Learning Organization" just appeared this past August. The third item is by Peter Senge of M.I.T.'s Sloan School of Management, author of many previous academic pieces on organizational learning. This item is what has become a very popular book, The Fifth Discipline: The Art and Practice of the Learning Organization. Published in 1990, it is probably the most read book on the subject. Why it wasn't even mentioned in the U.W.O. work remains unclear.

(Other writings were found in popular literature, e.g., Fortune magazine. As well, other literature, outside of that which used the term "organizational learning", was consulted in developing this paper, e.g. literature about high-involvement management practices, public administration practice and theory and strategic planning, all of which contributed to the development of my model.)

Second, not surprisingly, there is a scant amount of literature on organizational learning in the public sector. Only seven articles uncovered by the U.W.O. professors dealt specifically with **organizational learning in public sector organizations**. Only two of the seven had ever been cited in other literature, and these two had each only been cited once. (1)

Outside of the Ontario Management Board Secretariat's discussion paper, only three other published items on organizational learning were found in professional or scholastic literature. The three additional items found included: a five page article by Thomas Barth titled "Should Careerists Question Public Policy?" which appeared in The Bureaucrat (Winter 1987/88). It was located through an A.B.I. search and is the most relevant published piece of work found for examining the utility of organizational learning in a public sector environment. Another is a chapter from a U.K. based book on management for municipal administrators by John Stewart. The last is a chapter from the Canadian Federal Auditor General's 1992 Annual Report.

The third observation is that across these eleven works on organizational learning in public sector organizations, there are many different notions of what it is and how it works. Unfortunately, few have it entirely figured out. As an example, the Auditor General seems to understand how it works, but not what its core purpose should be i.e., it should be concerned primarily with helping governments to clarify the public interest, their objectives and strategies to realize these objectives; the focus on service delivery, while important, should not overshadow organizational improvement in these first three areas. (This is what distinguishes it from organizational learning in the private sector.). Others, such as Ventriss and Luke, seem to understand its core purpose, but are confused about how it works, i.e. they assume organizational learning is the same as individual learning, not recognizing the importance of systems.

Fourth, much of what is written about organizational learning is not organizational learning. In some cases it's not even about learning, but about adaptation and information sharing. In other cases it has little to do with organizational learning, but instead is about people learning in organizations.

Fifth, much of what is written about organizational learning is not labelled organizational learning. It goes by another name like innovation or reinventing. Most writers on the subject have, understandably, overlooked important contributions to the subject because of this labelling issue. This issue, in turn, arises from the definitional issue. It must be resolved for this field of research to make advances.

Finally, none of what is written about organizational learning in the private sector or in the public sector brings all the pieces of the puzzle together. Different writers understand different pieces, but none have the whole picture.

In fact, throughout the last two years, the four professors mentioned above from the University of Western Ontario's Business School, (Mary Crossan, Henry Lane, James Rush and Roderick White), supported by a team of researchers, have been studying organizational learning. They have developed an impressive analysis of the existing literature and practice. In 1992, they called together academics and practitioners for a symposium on organizational learning. In 1993 they extensively reviewed the literature. Their conclusion: there is no accepted theory or model of organizational learning. (Unfortunately, they fail to advance such a theory themselves, notwithstanding that they title their work: "Organizational Learning - Dimensions for a Theory".)

C. OVERVIEW OF THE PRACTICE OF ORGANIZATIONAL LEARNING IN PUBLIC SECTOR ORGANIZATIONS

A number of public sector organizations claim to be practising organizational learning, but by the definition developed in this paper, are not. (e.g. the Ontario Ministry of Health; Ontario Ministry of Consumer and Commercial Relations albeit sections of it that have established business improvement practices teams appear well positioned to advance to organizational learning.)

Undoubtedly, others are engaged in organizational learning, but have not labelled it as such. (e.g. the Ontario Ministry of Economic Development and Trade are engaged in what they have labelled a "strategic priorities exercise". The approach has some of the key tenets of organizational learning).

Otto Brodtrick, of the Canadian Federal Auditor General's Office, identifies four organizations that are engaged in organizational learning at the federal level of government: Statistics Canada, the GST Branch of the Department of National Revenue, the Canadian Centre for Mineral and Energy Technology, and the Administrative Policy Branch of Treasury Board. His research on these units is very helpful to the study of organizational learning. Whether it is helpful to the study of public sector organizational learning is less clear. This because there is nothing inherent about these units that distinguish them from private sector organizations. The functions of these units, although not their governance, could be given to the marketplace to operate.

If organizational learning is to take hold anywhere in the public sector, it is not surprising that it is in these units which more closely resemble private sector functions. The challenge is to determine how organizational learning could be implemented in functions that the market will not, or for public interest reasons should not, provide.

In summary, we face confusion in both the conceptualization and the practice of organizational learning. We need to build a clear definition and a model. Only then can we demonstrate how it might work in a public sector setting. The outline explains how we intend to construct this building.

D. OUTLINE OF THIS PAPER

As Northrop Frye in his eloquent work The Educated Imagination argues, "In every properly taught subject, we start at the centre and work outwards." (2) We start our research questions, therefore, asking "What is organizational learning?" To answer this we ask even more fundamental questions: What is learning? What is an organization? What is the result when we put these two compounds together? Here we find that management systems are a crucial part of organizational learning. This is section 1.

The second major research question is concerned with identifying the key variables affecting organizational learning. Like the Ukrainian dolls, we find several treasures inside treasures. The first is the "organizational effectiveness" one. We look inside it as it seems to be the one that defines why we would even want to be concerned with organizational learning. Inside we find another piece called "organizational fit". This, we find, is the key to organizational effectiveness. Now our search is on to find the key to "organizational fit." High-involvement management practices, an area of considerable management improvement promise, is identified as the area worthy of more serious investigation.

The third research question is: How do we move organizational learning along from an invention to an innovation? Here we need to learn how to put our design of organizational learning developed in section 1 into the high-involvement management culture developed in Section 2. We ask, in a high-involvement learning organization:

- what would people have knowledge about?
- what would they be rewarded for?
- what would they gather information about?
- what would they be empowered to do?

We also ask, if these are all such great ideas, then why have they not already been implemented? We find the answer largely lies in systems. Practical ideas are then advanced about what systems should be put in place to support the changes required to the organization for it to engage in organizational learning.

Lastly, we ask the question that the research interest initially sought to answer - how do we implement organizational learning in public sector organizations? Building on the model developed in the three earlier sections we examine how it might work in a public sector setting. Because the organizational learning model developed was largely built from experience in the private sector, we need to explore what it is about public sector organizations that fundamentally make them different. We need to draw some conclusions about what the implications are for organizational learning arising from these key distinctions.

We can then go on to address the issue of fit. Where are the areas where we should rethink our notions of how public sector organizations define and perform their role so that we can allow organizational learning to prosper?

The paper ends with an explanation of the opportunities available and the challenges ahead for those who wish to implement organizational learning.

This is a very detailed study. Some may think too detailed. But the approach is deliberate. It reflects an understanding of how learning actually works. In particular, the importance of assumptions in learning; the more that we discuss the details of how our ideas are expected to work, the more we are forced to surface our assumptions. Surfacing assumptions allows us to learn.

SECTION 1: WHAT IS ORGANIZATIONAL LEARNING?

A. WHAT IS LEARNING?

Before examining the issue of organizational learning, it is important to understand what is meant by "learning" and what is meant by "organization" and what the new compound is when the two concepts are joined.

It is not an overstatement to say that the same term means quite different things to different writers. Those who claim to be **practising** organizational learning are similarly using the label without stating their assumptions about what the term means.

Learning is not the same as adapting

The core of the confusion about the concept of learning is the failure to distinguish it from adaption. The latter involves changes in behaviour. The former involves changes in cognition. The Oxford Dictionary (6th edition, 1976) defines cognition as: "the faculty of knowing, perceiving and conceiving". These elements are captured in the term "thinking processes", the phrase that is commonly used in the literature and will be used here.

Some writers argue that learning has occurred if there has been a change in behaviour, even if the change was not preceded by a change in thinking to motivate the new behaviour. This is not learning. This is adaption. (3)

Although speaking about learning at the organizational level, the Canadian Auditor General draws the distinction this way: " While adapting is an element of learning, it is mainly a reactive function. Like chameleons and amoebas, organizations that merely adapt, wait for circumstances and situations to dictate a course of action. But this is a limited type of learning. At an advanced level, the learning process is much more deliberate, reflective and anticipative.... The adaptive organization is slightly behind; it is just arriving from the past. The learning organization is slightly ahead; it is just leaving for the future." (4)

It is easy to understand that it is possible that someone could change his behaviour without changing his thinking processes -- because the behaviour may be rewarded or mandated (e.g. a person knows that he could suffer a fine if he doesn't do up his seatbelt, so he buckles himself in. He does not have to understand that if he doesn't, then his fellow taxpayers may have to pay for his medical treatment arising from not having done so.) (See Figure 1, boxes 4, 6 and 7.) This distinction also helps us understand why people will do the right thing for the wrong reason. (e.g. an ethnocentric person may hire minorities, not because of an understanding of historic discrimination in hiring, but because he will receive a government subsidy for the hiring.)

It is more difficult, however, to understand how it is possible that someone could learn and yet not demonstrate a change in behaviour. Crossan, et. al. provide one of the more straight-forward explanations. (5) They argue that while there may be a change in thinking processes, there may be a strong set of competing beliefs that impede taking action. (See Figure 1, item A.) There can be a transformation in behaviour once there has been a resolution of the competing beliefs. (See Figure 1, item A and box 4.) (Seasoned public administrators frequently see this "transformation" in the thinking of politicians once in office. After a period of time (depending on the length and steepness of the learning curve), the new government allows its understanding about how modern economies work to replace its ideological imperatives. The result: potentially dramatically changed governing behaviour.)

One way to conceptualize the process here is to consider it as the movement from understanding, (a change in thinking processes), to acceptance, (resolution of competing beliefs). See Figure 1, items 9 & 10. As an example, a parent may understand his child's need for self-worth, but feel a competing need to "protect" him from the ravages of the world and deny his wish to attend a foreign university. The parent may only accept the child's wish when he has reconciled his belief of the importance of protection with his belief in the importance of self-worth and self-achievement. Until the reconciliation in beliefs has occurred, he has understood, but not accepted the new beliefs. This process implies discarding "old beliefs". Hedberg calls this "unlearning". (6)

"I'll believe it when I see it" or "I'll see it when I believe it": The Role of Interpretation in Learning

This takes us to a consideration of the role of interpretation in learning. People do carry around in their heads sets of assumptions about how the world works which may be competing with newly acquired information. One is reminded of the Chernobyl disaster where it was reported that the design engineers, while they could see that the reactor had exploded, did not believe it. Their assumptions told them it was impossible for an explosion to occur. They perished seeing, but not believing, that the explosion had occurred.

Some may only "see it when they believe it". Learning, therefore, is not simply transmitting information from one person to another (and seeing the receiver's behaviour change as a result). Instead, learning involves interpretation. The interpretative mechanism is called schema, "the web of beliefs both conscious and sub-conscious that... create meaning from data (and) guide actions". (7) One strand of this web is a "mental map" - a set of assumptions about a causal relationship (e.g. increased policing leads to decreased crime; smaller class size means improved student performance). (See Figure 1, boxes 5 and 8.)

Some writers use the term "single loop" and "double loop" learning to explain the role of assumptions in learning. Single loop refers to adjusting behaviour based on newly acquired information, whereas double loop refers to looping out to question assumptions and interpreting the new information based on challenged assumptions. (8) Rene Magritte, the Belgian surrealist artist, made a significant contribution to art, and modern management, by creating paintings that called on viewers to do a "second take", or double loop. One of his works is an outstanding example of the assumptions we carry around in our head. He paints a man facing a mirror. However, he sees not his face in the mirror, but his back.

It is argued that each individual possesses varying abilities for interpretation based on various schematic functions. The same information will be interpreted differently based on the individual's schema. Argyris and Schon (1978) argue that an individual's schema is central to being able to detect the mismatch between one's schema and the environment. (9) A person needs to have a set of beliefs that "truth" is ever changing in order to challenge other sets of beliefs (existing ones) and accommodate still other beliefs (new ones).

Argyris, in an earlier article (1977), called this "advocacy combined with inquiry". (10) That is, one can advocate one's position, but at the same time, encourage others to enquire into the beliefs underlying one's position rather than using unilateral coercion "to win". People who have such an ability, Argyris argues, value: valid and reliable information, competence, informed choices, and public monitoring of the effectiveness of their own decisions. They do not get caught up with ensuring that they "win" at the expense of suppressing others' feelings, de-emphasizing emotional aspects of a problem and closing their mind to dissent. (11) At the same time, they do not tell others what they believe will make them feel good about themselves. Instead, they "increase the others' capacity to confront their own ideas, ... to face their unsurfaced assumptions, biases and fears." (12)

Without this "double loop" capacity, Galileo would not have challenged the belief that the sun travelled around the earth rather than vice-a-versa. (The extent to which a social tension can develop when strongly held beliefs are challenged is illustrated by the response Galileo received from his "single loop" governors: a trial before the Inquisition. He was admonished "to abandon these opinions and to abstain altogether from teaching or defending or even discussing them.") (13)

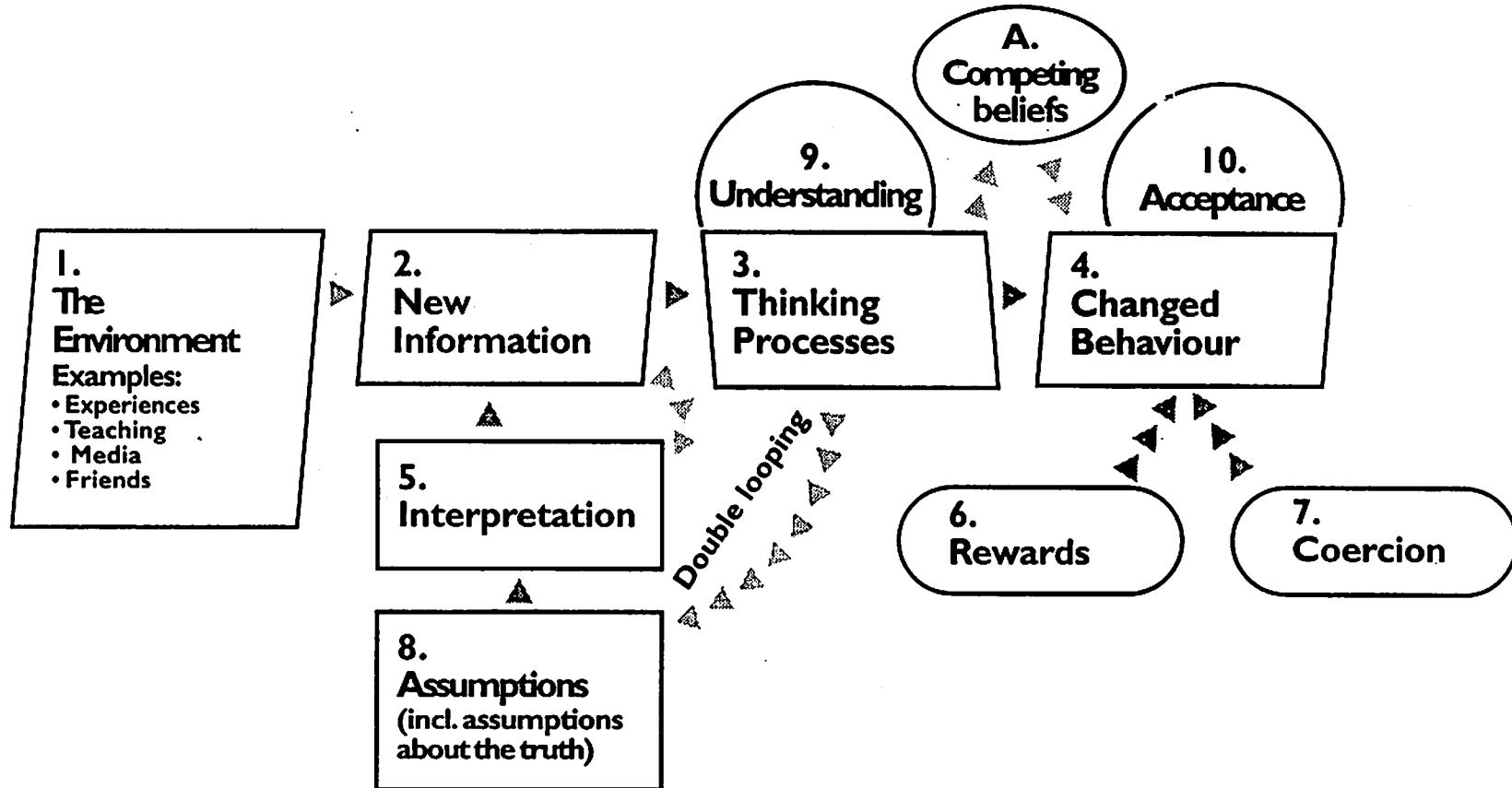
Knowing that mental models and beliefs are important in learning, may also be the key that will unlock the mystery of tacit knowledge. We can often feel frustrated that we can't possibly figure out how to reproduce what is known. In fact, this is the nature of tacit knowledge - we can know more than we can tell.

Ikujiro Nonaka, in a lively article, "The Knowledge - Creating Company", (14) provides an important insight: "...tacit knowledge... consists of mental models for beliefs and perspectives so ingrained that we take them for granted, and therefore can not easily articulate them. For this very reason, these implicit models profoundly shape how we perceive the world around us." (15) Nonaka goes on to illustrate by referring to a Japanese manufacturer that wished to perfect the design of a home bread-making machine. The design team was stumped in trying to figure out how to get the machine to knead dough so that the bread wouldn't end up overbaked on the outside and underbaked on the inside. Their solution was for one of their designers to work with a distinguished baker, observing closely how he kneaded the bread. The technician was able to surface the assumptions of the craftsman and then, working with the engineers, reproduce the baker's kneading technique with the addition of special ribs inside the machine. (16)

What does all of the above have to do with improving the lot of public sector organizations? Knowing the importance of interpretation helps the public administrator to know how to design public information sessions, create successful change management programs, select effective training tools for one's staff, or create systems to capture what one previously thought was tacit knowledge that couldn't be reproduced.

It also helps the administrator to understand that what is often passed off as learning, is not learning at all. An employee, while exposed to new information, may not be left with an ability to know when behaviour should be altered and when it should be left unchanged. Without an underlying understanding and acceptance (i.e. reconciliation of new with existing beliefs) of why a certain behaviour is necessary, future behaviour may be dysfunctional. It is also important to have this understanding of individual learning because it serves as the base for developing knowledge about organizational learning.

Figure 1: A Model of Learning



B. WHAT IS AN "ORGANIZATION"?

As was noted above, if we want to understand what organizational learning is, we first have to understand what learning is, then what an organization is and lastly what happens when the two concepts are married.

Fortunately there is not as much confusion about the term "organization". Heffron, who has written a thoughtful text on organizational behaviour in public sector organizations, defines it this way:

" Two or more people working to accomplish a common goal or goals through coordination of activities, which involves some type of structure." (17)

Some practitioners and writers in organizational learning explicitly, but more often implicitly, assume that organizations are simply the sum of their parts. They seem to ignore the evidence that once brought together, the organization is different from its parts.

Mary Parker Follett set the groundwork for this latter understanding with her 1924 work, Creative Experience. She advanced the notion of the "law of interpenetration": "members of a group are reciprocally conditioning forces as human interaction evokes new forms through the synthesis of differences". (18) She argued that this resulted in a "whole" not greater than the sum of its parts, but different from its parts. Follett's "doctrine of the wholes" held that the whole can not be understood by analysing its constituent parts. She saw the whole as dynamic with its interests emerging from the group process of the interpenetration and synthesis of ideas, actions and feelings. (19)

C. WHAT IS THE RESULT WHEN WE PUT THE TWO COMPOUNDS TOGETHER: "LEARNING" AND "ORGANIZATION"?

These two perspectives on organizational behaviour are important for organizational learning. If one follows the organization-as-a-sum-of-individuals view, then one sees organizations as learning only through its members. H.A. Simon, a public administration theorist, who, unfortunately has been given much more prominence in public administration teaching than Follett, argued that "All learning takes place inside individual human heads; an organization learns in only two ways: (a) by the learning of its members, or (b) by ingesting new members who have knowledge the organization didn't have." (20)

Equally troubling, one of the most popular writers on organizational learning, Chris Argyris, holds the belief that "organizational learning occurs when members of the organization act as learning agents for the organization." (21)

Organizational learning is not the same as individual learning

Contrast Simon and Argyris' view with Hedberg: "Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members' learning." (22)

Hedberg, echoing Follett's, ideas begins to build the base for a compelling argument about how organizations learn. He focuses on organization systems, suggesting, organizations "... have cognitive systems and memories. ...Members come and go, and leadership changes, but organizations' memories preserve certain behaviours, mental maps, norms and values over time." "For example", he says, "standard operating procedures constitute behaviour repertoires which are available to many members and which are frequently inherited between office holders."

Hedberg's notions of how organizations learn is also supported by Weick. He says "Organizations are not just bodies of thought, they are sets of thinking practices that produce those bodies of thought". (23) He suggests that cognitive maps exist at the organizational level.

Shrivastava and Mitroff, draw on the concept of schema (from the individual level learning described earlier) to suggest that organizations have an equivalent interpretative mechanism, commonly referred to as "organizational frames of reference". (24) (As Crossan, et.al. point out, this is not a widely held view. (25))

Putting organizational learning into practise: the key role of systems

The literature offers little clear advice for administrators about how these vague terms like "mental maps", "thinking practices" and "organizational frames of reference" are to be operationalized. However, among the theorists who make each of the three crucial distinctions discussed above (learning vs. adaption; information sharing vs. interpretation; individual learning vs. organizational learning), there is a common thread. That thread is the emphasis on systems, and to a lesser extent, structures and procedures, as the implementation vehicle for organizational learning. (See Figure 2, box 3.)

Argyris, failing to follow his own advice about the importance of inquiring into one's own assumptions and public testing of one's ideas, continues to hold the belief that the core problem in an organization's learning is its people, not its systems. In his 1990 work he asserts that "blaming others or the system for poor decisions" is one of "seven worldwide errors" (of organizational learning). However, his examples both in his introduction (26) and in his detailed discussion in the text (27) do not refer to systems. His argument is operationally invalid; his examples should not lead one to reject systems as an explanation for how organizations learn.

Unfortunately, other writers including Garratt (28) who has influenced the Ontario Government's approach to organizational learning, have not challenged Argyris' assumptions, the way others have. The result is that it is not widely accepted, and perhaps even understood, that although individual learning can assist with organizational learning, it is only a small part of it. The individual's skills, as we will see later in the discussion of key variables, has to be combined with a commensurate movement down into the organization of information, rewards and power and a focus on improving systems.

We now know from Deming's landmark research on total quality management that 94 percent of errors are due to systems, whereas only 6 percent are attributable to individuals. (29)

Osborne and Gaebler also emphasize the importance of systems in their advice to public administrators (and politicians) who would like to transform their organizations into "mission-driven" units: "If leaders tell their employees to focus on their mission, but the budget and personnel systems tell them to follow the rules and spend within the line items, the employees will listen to the systems. The leaders' mission will vanish like a mirage." (30) Earlier, they offer a systems approach to addressing larger issues facing government, asserting, "... waste in government does not come tied up in neat packages. It is marbled through our bureaucracies. It is embedded in the way we do business." (31)

The latest writing on organizational learning (32) also offers a similar perspective: "The greatest benefit", says David Garvin, "comes from studying practices, the way that work get done, rather than results, and from involving the line managers in the process."

The practitioners also seem to be on the side of systems as the area where one can gain the most leverage in improving organizational learning. Ray Stata, Chairman of Analog Devices, Inc., writing an article for The Sloan Management Review on organizational learning in his company, argues that "... one of the highest leverage points for improving performance is the minimization of systems delays." (By systems delays, he meant, as an example, the amount of time between when an order is received and when it is shipped.) (33)

Peter Senge's popular book, The Fifth Discipline, The Art and Practise of The Learning Organization, uses systems thinking as the main ingredient for building learning organizations. His book is full of examples of how correcting systems problems can lead to improved learning capacity.

The University of Western Ontario's June 1992 symposium, "Learning in Organizations" also offers a statement by one of the participants (unidentified) that shows the link between organizational learning and systems: "I have been interested

in learning for a couple of years now and got into it in part because I was particularly interested in how total quality management programs worked. ... when you have total quality management, you'll come in and focus on a particular process and really that is a set of routines that people go through to accomplish a joint task....The routine is not anything that is possessed by one individual. It's a characteristic of the group as a whole. The routines are very handy because when you want to talk about what changes in an organization as result of learning, I like to focus on routines." (34)

Finally, the Canadian Federal Auditor General, after extensive investigation, also takes the "systems" side of the argument about what organizational learning is saying it arises when employees' "...skills and knowledge are embedded in the attitudes and practices of the organization... This is one of the core processes of organizational learning." (35)

In conclusion, while the early literature on organizational learning (e.g. Argyris; Simon) suggested that the focus should be on the direct education, training and development of people, this assumption should now be challenged given current understanding of what learning is and how organizations learn. It is not that this focus on individual learning is wrong, it's just that from a leverage viewpoint, it is has little utility relative to systems.

Separating the wheat from the chaff: distinguishing types and levels of organizational learning

To round out our understanding of how organizations learn it is helpful to consider the categorization of **types** of organizational learning systems and **levels** (or outputs) of organizational learning. These issues are largely ignored by the literature. However, they are necessary to understand if administrators want to know what aspects of the theory are most useful to their situations. After all, to some extent, all organizations learn. The key is determining how to improve the quality of the organization's learning. To determine how, we need to know what it is that represents quality learning.

Types of organizational learning:

Organizational learning systems can be thought of as types to:

- (a) acquire and distribute information impacting the organization and**
- (b) interpret that information.**

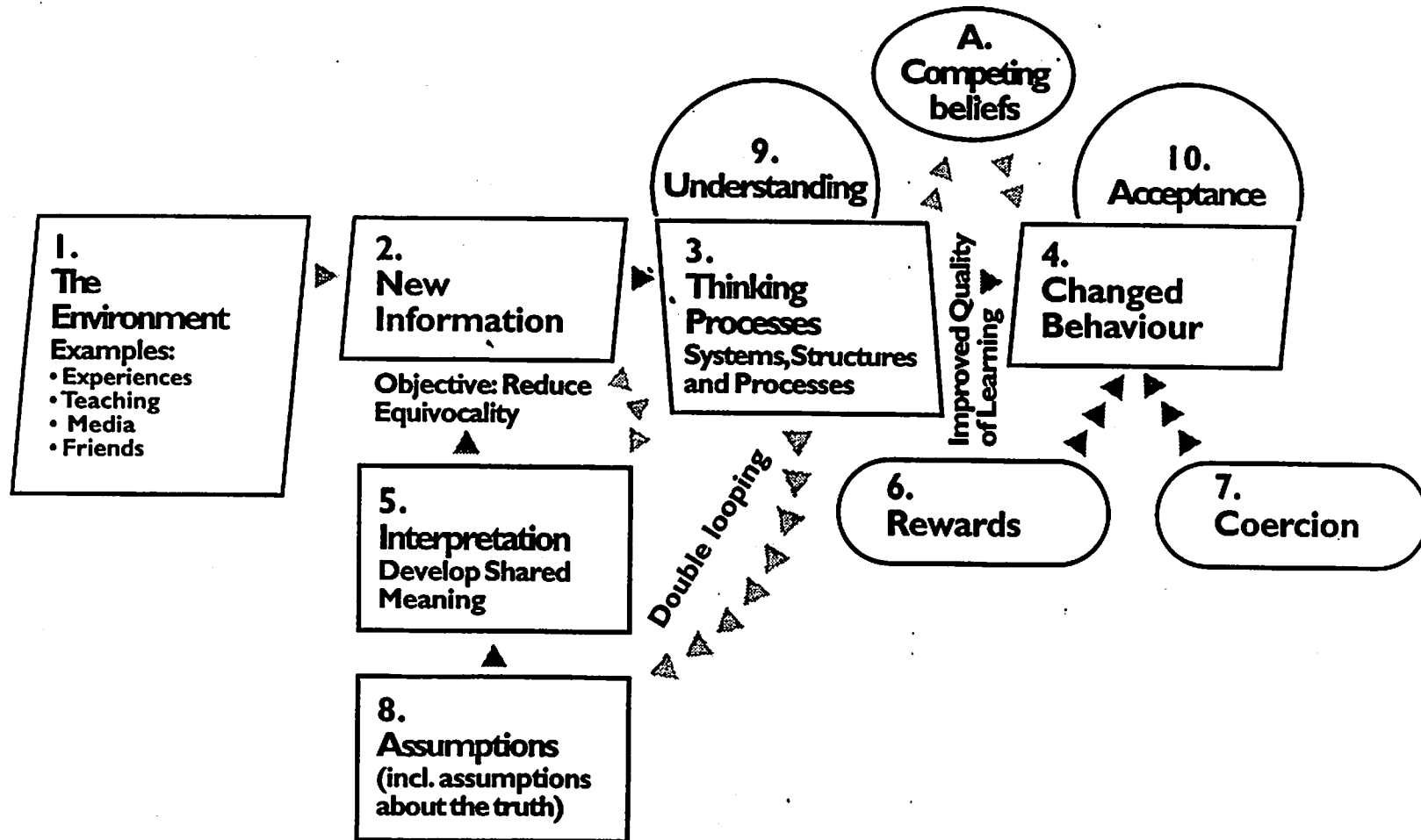
Daft and Huber's work is the most helpful for sorting out types. They explain various techniques for (a), but wisely concentrate on the tougher issue, (b). They use the term "information equivocality" to refer to the degree of ambiguity of the information the administrator is presented with. The key learning issue becomes "what do we make of this?". They argue, "The problem for administrators is interpreting and knowing the world rather than controlling the organization. For an organization to learn, equivocality must be reduced to an acceptable level." (36) This is important because it helps sharpen our focus on what organizational learning should be trying to do. They assert: "... the essence of organizational learning is the reduction of equivocality, not data gathering." (37) They suggest the device to realize this is the development of a shared meaning of the information acquired. (38) (See Figure 2, box 5.)

Levels of Organizational Learning

The most useful conceptualization about levels of organizational learning is Jaikumur and Bohn's little known 1986 work reproduced in Garvin's 1993 article in the Harvard Business Review, (39). They suggest that in manufacturing sciences there are eight levels of knowledge. Their ideas are that much more interesting when juxtaposed to Daft and Huber's equivocality concept. While they may not recognize it as such, Jaikumur and Bohn, aside from illustrating the types of outputs of learning (see Figure 2, box 4), provide the increments for measuring degrees of equivocality, something that Daft and Huber have not refined. These levels are:

- " 1. Recognizing prototypes (what is a good product?)
2. Recognizing attributes within prototypes (ability to define some conditions under which process gives good output) – a causal relationship
3. Discriminating among attributes (which attributes are important? Experts may differ about relevance of patterns; new operators are often trained through apprenticeships)
4. Measuring attributes (some key attributes are measured; measures may be qualitative and relative)
5. Locally controllable attributes (repeatable performance; process designed by expert, but technician can perform it)
6. Recognizing and discriminating between contingencies (production process can be mechanized and monitored manually)
7. Controlling contingencies (process can be automated)
8. Understanding procedures and controlling contingencies (process is completely understood)"

Figure 2: A Basic Model of Organizational Learning



SECTION 2: WHAT ARE THE KEY VARIABLES AFFECTING ORGANIZATIONAL LEARNING?

Having sketched an outline of what organizational learning is, an important issue remains: what are the variables that influence its success? Is it the age of the organization since it's hard to teach an old dog new tricks. This doesn't seem to be it. Ford and General Electric are two old institutions that have implemented learning organization practices. (40)

How about the size of the organization, since one would assume that it's harder to turn a big ship than a small one. Again, the evidence does not support size as a key variable: Royal/Dutch Shell, 3M and the two companies above are huge multi-nationals, yet are learning organizations.

The examples cited are all in the manufacturing/distribution business. Is organizational learning dependent on type of industry? Again, this seems to be an inadequate explanation as service businesses like Federal Express and Hanover Insurance are learning organizations. (41)

One of the features that all of these organizations have in common is that they are private as opposed to public. Is this the explanation? While organizational learning in public sector organizations is different than organizational learning in private sector organizations, (as we will see in section 4 of this paper), public sector organizations can become learning organizations as the Canadian Federal Auditor General reported in its 1992 Report. That office considers each of the following units of the Federal Public Service as having implemented organizational learning: Statistics Canada, the GST Branch of the Department of National Revenue, the Canadian Centre for Mineral and Energy Technology, and the Administrative Policy Branch of Treasury Board. (42)

This avenue of theory-building appears rather fruitless. It is obvious that if we want to answer the question, it needs to be framed in a different context. A useful one would be to consider the question: what are the key variables affecting organizational effectiveness?

A. Why should organizational learning be linked to improving organizational effectiveness?

There are substantive and perceptual reasons for this approach.

First, learning serves little benefit to organizations if it does nothing to improve organizational performance. Learning for learning's sake will do little to attract the interest of most organizations. They have difficulty coping with their "required" mandate let alone finding time to follow a management approach that few people can even define.

The evolution of the literature on organizational learning also reflects this trend to linking the concept with organizational effectiveness. While the early writing was primarily in the human resource and psychology based literature, the organizational behaviour, strategic planning and management sciences literature, now dominate the field. At their core, these latter disciplines are looking for the concept to help them address the larger issues of organizational performance.

Observers have noted that the Ontario Management Board Secretariat's (MBS) learning organization project should give more attention to this core purpose of organizational learning. (43) In fact, the MBS authors report that after circulating a draft discussion paper, "a number of people asked for a clearer justification of the business case for the learning organization." (44) The final report goes on to argue: "While Towards a Learning Organization is subtitled "A Discussion Paper on Training, Education and Development in the Ontario Public Service", the major issues addressed have much to do with organizational effectiveness." (45) Unfortunately the paper fails to answer its own question, concluding, "Ultimately, the idea of the Learning Organization is about helping organizations to perform through the learning of their people..." (46) This approach may help to explain the relatively low level of take-up within the Ontario Public Service for organizational learning (as defined by MBS).

The second reason for linking organizational learning to organizational effectiveness is to provide a fit with the systems approach to learning argued above. If 94% of management problems are systems problems, and organizational learning is embodied in organizational systems, then it seems worthwhile to put some time into improving learning systems if one wants to improve organizational performance.

The third reason has to do with change management. Like any change management program, if organizational learning is not tied to organizational effectiveness, it will be resisted. Rosabeth Moss Kanter, author of The Change Masters, in a discussion about implementing employment equity, argues that if such organizational change efforts "...appear to be imposed from outside and are incongruent with organizational goals - even for those organizations which have accepted social responsibility as one of their obligations - and if such programs appear to be punitive and costly, then they will be strenuously resisted. But if they can be designed to benefit women and minorities while also benefiting other organization members, then their chances for success are multiplied." (47)

Organizational learning should be linked to organizational effectiveness. (See Figure 3, box 4.) But the question remains, what are the variables affecting organizational effectiveness?

B. What are the key variables affecting organizational effectiveness?

If we can determine what variables affect organizational effectiveness, then we may be able to determine what variables affect organizational learning.

This was the premise of Otto Brodtrick of the Office of the Federal Auditor General. In 1988 the Office authored a report "Attributes of Well Performing Organizations". They identified the following four common attributes: emphasis on people; participative leadership; innovative work styles; strong client orientation. Included in "innovative work styles" were what he called "learning organizations". Brodtrick described these as organizations where: "Staff are involved in continual scrutiny of the organization, of its environment, and of its performance in relation to the ideal. They seek to learn from the effects of their actions. They use evaluations, standards and assessments, but always for a productive and defined purpose, never simply because of convention." (48)

The Auditor General followed this 1988 report with a report two years later on the impact of values, attitudes and motivation on organizational performance. Then in 1992, it published the report, The Learning Organization. While Brodtrick was confident that organizations could go some way to improving their performance by getting their structures, values, skills, and leadership clarified, he believed that all of these need to be aligned with the environment that the organization is operating in. He sees this alignment as necessary because the organization, to remain relevant, has to learn as fast as that environment. (49)

He helps answer our question about key variables for organizational effectiveness, concluding that an organization's "fit" with its environment is key to its effectiveness. (See Figure 3, box 4a.) The question then becomes, what are the key variables affecting organizational "fit"?

C. What are the key variables affecting organizational "fit"?

Increasingly the evidence seems to point to knowledge, rewards, information and power as the key variables. Specifically, changing systems so that each of these key variables are moved to the lowest feasible level in the organization, throughout the organization, is the most effective means for the organization to learn about its environment and to develop a fit with that environment. (50)

Lawler, the father of these ideas about the importance of knowledge, rewards, information and power, starts from the same orientation as organizational learning theorists in arguing the importance of organizational "fit": "To be effective, a management approach needs to fit the existing social values, the nature of the work force, the type of product being produced and the business environment". (51) (See Figure 3, box 1a.)

Lawler advanced these ideas in his 1990 book, High-Involvement Organizations. He describes a high-involvement organization as one where knowledge, rewards, information and power are each moved down in the organization to the lowest feasible level. Lawler calls for:

(a) congruence between the level at which these variables are moved (i.e. If you push information to the lowest levels, then also push power to that level), and

(b) completeness of application of the concept (i.e. throughout the scope of the organization.)

He explains that such an organization operates like this: "The reward system encourages people to develop their skills; the information system gives them the foundation they need to use their skills; the training and selection system helps them develop their skills; and the work design gives them the power and tasks to utilize their skills. When all of these features are combined they provide a congruent high-involvement organization that is distinctly different from existing organizations." (52)

Organizational learning, not grounded to high involvement practices, offers little chance of sustained life or even transportability from a text book concept to reality. In reviewing the organizational learning literature one is struck by the seemingly implicit assumptions that the people doing the learning and the systems to support learning, face no disincentives to acquiring information about their environment, have the skills and authority to redesign the systems based on new information about their inadequacies, and hold information about what the key forces are that are impacting the organization and what the organization intends to do based on this information. (A more realistic notion of what is required for organizational learning is illustrated in Figure 3, especially box 3a.)

In the literature, there are implicit links drawn between the concepts of high-involvement organizations and organizational learning, although few writers seem to realize it. (Argyris is an exception. His views are discussed below.) One can read the two most popular writers on the subjects, Lawler on high involvement organizations and Senge on learning organizations, and never know the other even existed. There is no reference in either of their works, to the other.

They are both poorer for not having recognized the fit between their ideas. Their clients may be too. Each have done consulting work with the same American companies: Herman Miller Company and Digital Equipment Corporation. (53)

In Ault Foods there may also be a fit between the two concepts. This Canadian company was recently featured in both the Globe and Mail's "Change Page" (54) as an example of a high involvement organization and two months later in the newspaper's Report on Business Magazine as a learning organization. (55)

Management researchers should pursue this. It deserves more investigation than what this paper can afford.

Although Lawler makes no specific mention of organizational learning, his goals for participative management are quite consistent with the goals of organizational learning: higher quality, enhanced productivity. (56)

Among those who write about organizational learning, a couple of sharp examples of the cross-over stand out. Ray Stata, Chairman of Analog Devices who also holds a sound understanding of the theory of organizational behaviour has remarked: "The "scientific management" revolution of Fredrick Taylor took the traditional division of labour, between workers and managers, and gave us the "thinkers" and the "doers". The doers were basically prohibited from thinking. I believe our fundamental challenge is tapping the intellectual capacity of people at all levels, both as individuals and as groups. To truly engage everyone - that's the untapped potential in modern corporations. This leads me to the notion of an organization as a learning organism." (57)

Daft and Huber also see the link, arguing that the design of the interpretive learning system "... should place organizational members in direct contact with relevant external sectors to obtain rich information." (58) They see this as necessary to reduce the "equivocality" of the information gathered from the environment. For them, the practical workings of this would see organizational structures that locate people close to customers, suppliers or other significant stakeholders. Internally, staff make extensive use of group meetings to "establish a common frame of reference and to enact meaning about environmental events." (59)

Senge appears to see the link, but does more to cloud the connection than to clarify it. He argues that the philosophy of participative management means everyone can state their views but little real learning takes place. This, because people will only go so far in stating their view and "after stating our opinions, if we don't agree, we simply conclude that "people are different" and go our separate ways." (60)

Senge's criticism is valid in the context of traditional participative approaches, such as quality circles, job enrichment and gainsharing. In these cases, there is not necessarily a congruence between the level at which knowledge, rewards, information and power have been moved in the organization. So as an example, in quality circles, while employees may share knowledge, they do not hold the power or the rewards to change such important systems as promotion, selection and pay to encourage such shared knowledge. (61)

Senge's criticism is invalid, however, if we define participative management in the way that Lawler has. In a high-involvement organization, the reward and power systems are such that there are strong disincentives if people go their separate ways.

(The dissident member may not be permitted by the balance of the group to continue sharing decisions about what will be rewarded. If the whole group splinters apart, they all lose the benefit of shared knowledge, information and power.)

Argyris similarly needs to be invited to reopen his thinking on participative management. He makes a good point that participative management will not be very effective if the people involved do not follow an "advocacy combined with enquiry" approach, (described earlier in the discussion on double loop learning). However, he uses very selective passages from Lawler's book, leading the reader to conclude that participative management is a nice idea in theory, but is impractical and even "self-limiting and denigrating to the best people". (62) Argyris quotes from Lawler's stories about problems with quality circles and job enrichment, but fails to mention that neither of these, on their own, constitute participative management as Lawler has defined it. (63) One will not see in Argyris' work Lawler's criticism of quality circles - "They leave unchanged such important systems as promotion, selection, and pay". (64) Nor will one find Lawler's criticism: "Like quality circles, job enrichment deals with a relatively small percentage of people in the organization." (65)

The key argument (which Lawler makes time and time again), is that effectiveness depends on moving each of the four variables to the lowest feasible level in the organization and that these "individual practices must fit together and affect everyone in the same way". (66) This is particularly important as this new management approach gets attacked by the cynics. (67)

It can be concluded that the starting point for organizational learning should be high involvement management practices. In fact, one could argue that the practitioners and writers who are using the term "organizational learning" when they really mean "individual learning in organizations" (e.g. M.B.S., Argyris), are saying that the skills component of high-involvement management is crucial to an organization's learning. While this is valid, these writers also need to recognize the importance of attaining congruence between skills and the other components (rewards, information and power), and to acknowledge the leverage advantage of systems.

The focus of organizational learning, as argued above, must be on organizational effectiveness. Lawler's work is well grounded to organizational effectiveness. His ideas have been supported by years of valid and reliable research and hundreds of actual practical demonstrations of improved organizational effectiveness. (68) His thinking has also been supported by the American based National Center on Education and the Economy. In its 1990 report it drew a link between the decline in the global competitiveness of American firms and the fact that only 5% of American firms have "experimented" with "high-involvement" practices. (69)

High involvement practices also give organizational learning a humane touch. The latter, unlike the former, does not hold as one of its goals, treating people with respect and dignity and assisting employees to realize their self-worth. It is not that organizational learning is foreign to these goals, it's just that in itself it does not seek to fulfil these purposes.

Organizational learning, set in a high-involvement management context, means that learning will fit with the social values of customers and employees. (See Figure 3, box 1a.) Each expect to be treated democratically. They also expect that their participation in the subject matter of the organization's learning intervention will be valued (e.g. that their ideas from a stakeholder consultation meeting will not be ignored).

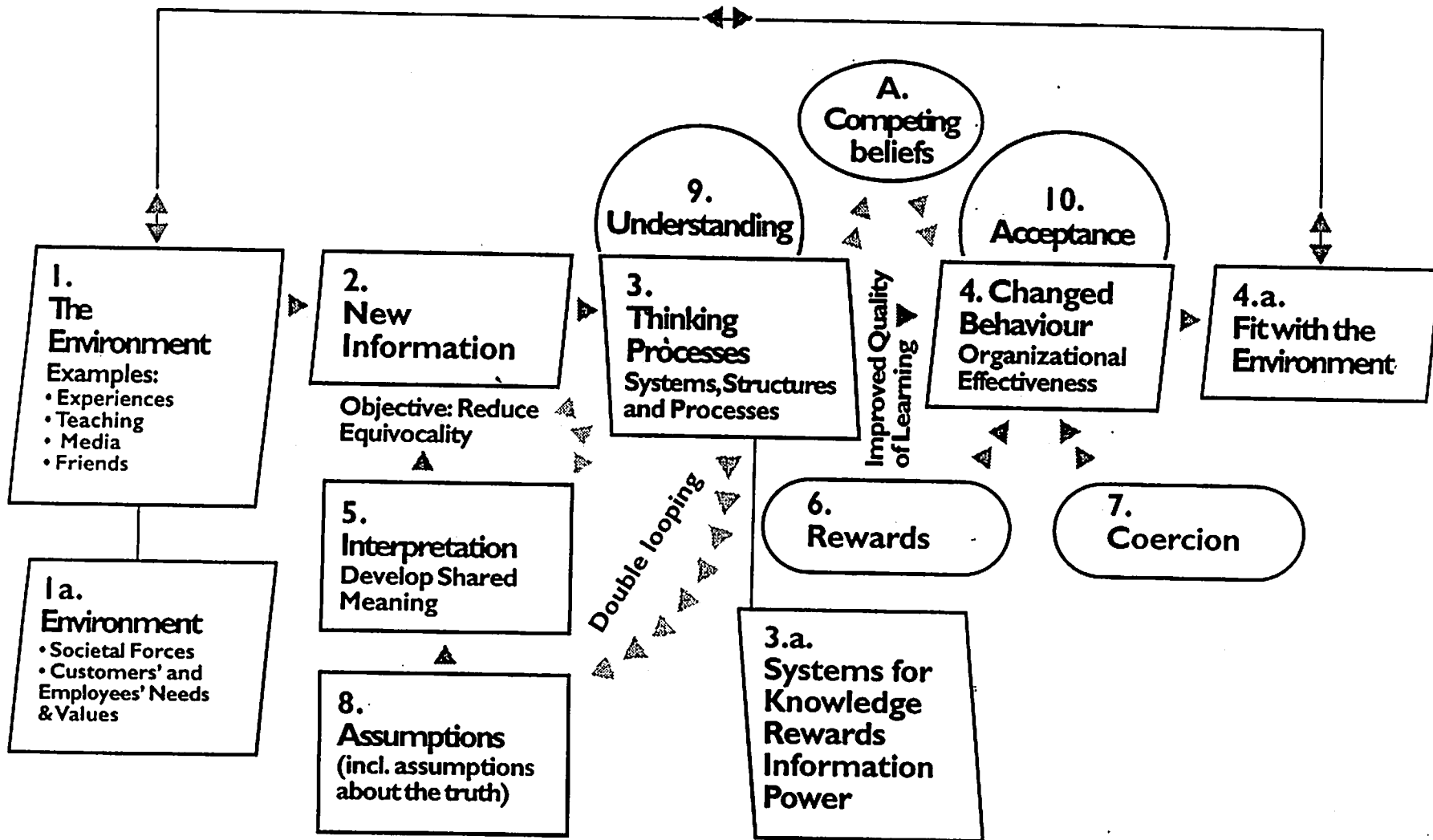
Summary

Organizational learning should not be undertaken by the faint of heart. Executives that expect to reap gains from its implementation without taking action on the way knowledge, rewards, information and power is shared in their organization will be disappointed. Furthermore, it's not tidy. It's quite messy. It's iterative. It can easily experience false starts; the organization can appear to have learned, when in fact, it has only adapted.

If the concept and how it works is not clear at this point, look at the Figure on the next page next to the definition of organizational learning reproduced here.

the improvement in organizational effectiveness through a continuous process of designing and using systems that give people in the organization knowledge, rewards, information and power to do a quality job collecting and interpreting information about the organization's environment, including information about the consequences of the organization's actions on its environment, and applying understandings gained from this process to the improvement of these systems.

Figure 3: A Developed Model of Organizational Learning



SECTION 3: MOVING ORGANIZATIONAL LEARNING FROM AN INVENTION TO A INNOVATION

As with any change management program we have to start from where we are. It may be one thing to design learning systems for an organization. It is quite another to put them in a supportive culture. Unless these learning systems are supported by a reward system, with organizational members sharing knowledge about how they learn and information on the environment in which the organization is trying to make a fit, and the power to change systems to get a better fit, then the design will be little more than just that -- a design.

Public administrators deserve something more than that. They need a design, but also the tools to see the design come to life. This section addresses this issue. It answers several questions for those who wish to implement a high-involvement learning organization, including:

- what would people have knowledge about?**
- what would they be rewarded for?**
- what would they gather information about?**
- what would they be empowered to do?**

Administrators may also ask: if these are all such great ideas, then why have they not already been implemented? The answer lies largely in system barriers. Insight will therefore be offered on the systems required to support these changes for people.

As we will learn, answering these questions will help us to take the next few crucial steps. It will allow us to respond to Senge's contention that "...learning organizations have been invented, but they have not been innovated." (70)

Knowledge

The most significant skill that a learning organization should be encouraging staff to acquire is **knowledge** about how organizational learning works. As Beer, Eisenstat and Spector, argue in their article, " Why Change Programs Don't Produce Change", (71), the organization that seeks a fit with its environment, "has to learn how to learn." We can think of this type of knowledge from three dimensions: First, knowledge about how, in general, organizations learn. Second, knowledge about how one's own organization has learned in the past. Third, knowledge about how the organization can improve its innovation capacity.

On the first dimension, given what we now know about organizational learning, it's reasonable to expect those who want to implement it to acquire knowledge about the **paradoxes** identified to this point:

- why a person can "understand" a belief, but fail to "accept" it;
- why people do not always "believe it when they see it";
- how it's possible that an individual or an organization can advocate its beliefs, and yet remain open to learning;
- how it is feasible to reproduce tacit knowledge;
- why employees who agree with an organization's mission, may take action that frustrates that mission;
- why organizations with even the best high-tech automated information systems can have little real sense of what is going on in the world around them;
- why organizations can know what is a good product, but can't produce it;
- why an organization can have well trained managers, and still be ineffective;
- why an organization that uses quality circles is not necessarily a learning one.

These are all important issues. The organization that wants to implement organizational learning, needs to hold knowledge about why these paradoxes exist.

This paper should also help administrators on the second dimension. When reflecting on their "learning experiences", they need to know whether the "learning" was in fact learning or simply adaption, whether the organization engaged in double loop learning or single loop learning and whether the learning actually became organizational learning (i.e. embedded in systems) or simply a case of individuals carrying learning around in their heads, available to the next person, but not the whole organization.

Gregory Bateson (72) called this knowledge about previous learning "deutro-learning". By this he meant learning about the previous context for learning. When confronted with a new problem, it is helpful to ask, as many managers do, "how did we do it the last time?". However, the question has to be combined with: "what is different and what is the same as the last time?".

Argyris and Schon say that organizations that engage in this type of learning, "reflect on and inquire into previous contexts for learning. They reflect on and inquire into previous episodes of organizational learning, or failure to learn. They discover what they did that facilitated or inhibited learning, they invent new strategies for learning, they produce these strategies, and they evaluate and generalize what they have produced. The results become encoded in individual images and maps and are reflected in organizational learning practice." (73)

In the public administration literature, Perez makes a similar argument about the importance of context. He says that the "...ahistoric orientation of the discipline (of public administration) has drastically reduced its capacity for theory building" (74) He says that system analysis overcomes this traditional ahistoric approach because it "... emphasizes the system character of social relationships and the transactions of systems with their environment." Perez, however, bemoans the traditional focus of system analysis on internal organizational issues rather than on "... the study of structural factors that condition the evolution and transformation of the state." (75) As we will see in section 4.B.(iii) of this paper, information systems can be designed to assist organizations to learn about these broader issues.

Interrelated to the first two dimensions is the third - improving the **innovative capacity** of the organization. This is not the same as "inventive" capacity. Senge makes the distinction between invention and innovation quite clearly. He refers to the development of the DC 3 engine which, thirty years after the Wright Brothers "invented" the airplane, was the "basic innovation" that created a new industry. The innovation was in bringing together "five critical component technologies that formed a successful ensemble. They were: the variable-pitch propeller, retractable landing gear, a type of light-weight moulded body construction called "monocque", radial air cooled engine, and wing flaps. To succeed the DC3 needed all five; Four were not enough." (76)

As should be clear from the earlier arguments, organizational learning needs certain critical components to form a "successful ensemble": knowledge, rewards, information and power and systems to support these. Senge's "five disciplines" for learning organizations are not enough.

Systems to support acquisition of knowledge for organizational learning:

The organization needs a reward system that encourages staff to gain knowledge about learning. Much of this learning only comes from experience, so employees have to be permitted to experiment and learn from trial and error. Learning about the paradoxes of organizational learning may best be gained in an "action learning" context - where the organization takes a particular business problem applying these insights about organizational learning to work through to a resolution. (77)

There is also widespread agreement that the hierarchy and functionalism features of a traditional organization's structures can be antithetic to sharing knowledge. (79) A hierarchy's tiers separate the centre from knowledge held at each level. (80) Functionalism means that knowledge can fall between the cracks, landing in none of the functional divides because it doesn't fit. Unfortunately, this type of knowledge could be just the sort that the organization needs to acquire as it may have application to many of its different interests. (81)

As well, it is recognized that there is a causal relationship between these two variables. As Lawler explains, in organizations where individuals perform their own particular speciality (do not share knowledge) this "... creates the need for hierarchy and extensive control systems to assure that the different systems work together to deliver the product or service that the customer wants." (82) This is an important insight for organizations that are currently trying to implement "de-layering" (e.g. the Ontario Public Service). Perhaps the place to start is not with delayering itself, but with functionalism, the energy source for hierarchy.

There are two unconventional approaches to addressing the functionalism problem that deserve mention. One is Stewart's notion of allowing an element of "disorganization". This, to address the paradox that the organization may only be learning what it already knows when it organizes itself into discrete units such that each unit is protected against knowledge which is seen as "irrelevant". (83)

The other response, which we know has had actual application, is to build redundancy into the organization. Nonaka (84) identifies redundancy as the "fundamental principle of organizational design" of the Japanese companies he studied in his work on "knowledge-creating" companies. He describes it as "the conscious overlapping of company information, business activities, and managerial responsibilities." The result is that knowledge is spread throughout the company. In turn, the results for organizational effectiveness can be very positive: At Canon, the knowledge involved in inventing a drum for a mini-copier, (i.e. knowledge about how to facilitate miniaturization, weight reduction and automated assembly) was used to improve the company's other products including microfilm readers, laser printers, word processors and typewriters. Nonaka reports that the ability to apply this knowledge across diverse areas of the company "... was an important factor in securing a competitive edge in the laser printer industry".

A conventional organization, where functionalism is a sacred tenet of organizational design, is unlikely to have made these sorts of gains; knowledge just has too difficult of a challenge in trying to mount functional walls.

Rewards

What does a learning organization reward? Put simply, it rewards learning.

Knowledge about learning, as has been argued, should be rewarded. Again, however, we have to surface some assumptions. If we assume that all we have to do is give people this knowledge and then they will simply implement it, then we are rewarding the right people if we reward the preachers. However, we now know, based on our understanding of learning, that the process is not quite that simple.

We have to reward the doers. Argyris, in his early article on organizational learning, (85) explains why. He describes a case where a multi-billion dollar corporation decided that Product "X", after its losses exceeded \$100 million, should be dropped. This despite the fact that five people (in four different parts of the organization) knew six years before the company decided to stop producing it that it was in "serious trouble".

In explaining why this information did not get to the top sooner, he concludes, "In this organization, as in many others, norms had developed that had admonished people: "Do not confront company policies and objectives, especially those top management is excited about." Thus to communicate the truth upward about the serious problems of Product X would, in addition to confronting a company policy, violate an organizational norm. But in order for this norm to be followed it must have been protected by another norm that states, "you cannot openly confront norms that tell you not to confront policies and objectives". In other words, to maintain the first norm a lot of information about error hiding would have to be camouflaged. So we have norms embedded within norms that inhibit double loop learning."

Further highlighting the issues with the reward system, he continues, "To complicate matters, when employees adhere to a norm that says "hide errors", they know they are violating another norm that says "reveal errors". Whichever norm they choose, they risk getting into trouble. If they hide the error, they can be punished by the top if the error is discovered. If they reveal the error, they run the risk of exposing a whole network of camouflage and deception. The employees are thus in a double bind, because whatever they do is necessary yet counterproductive to the organization, and their actions may even be personally abhorrent." (86)

Argyris asserts that the only way double loop learning will occur in such an organization is if it experiences a crisis (either from inside or from outside the organization). The solution, which has been discussed in this paper's review of the concept of double loop learning, is for the organization to learn how to combine the skills of advocacy with those of encouraging inquiry and confrontation of whatever is being advocated. (87)

Argyris' story may also help to explain what is actually going on in an organization that is characterized as one where "nothing ever really changes around here unless there's a crisis". Perhaps what is being described by these words is an organization that has not learned how to do double loop learning.

Another effective reward for encouraging learning is to implement the results of learning. Garvin's story about the development of Boeing's 757 and 767 planes illustrates this point. (88) Boeing commissioned an employee group, called Project Homework, to compare the development processes of the 737 and 747 (each had serious problems) with those of the 707 and 727 (two of the company's most profitable planes). "The group", Garvin reports, "was asked to develop a set of "lessons learned" that could be used on future projects. After working for three years, they produced hundreds of recommendations and an inch-thick booklet. Several members of the team were then transferred to the 757 and 767 start-ups, and guided by experience, they produced the most successful, error-free launches in Boeing's history." (89)

According to Brodtrick, learning organizations also reward people who "see changes as an opportunity to be welcomed instead of a threat to be resisted". Echoing, Lawler's emphasis on completeness of involvement, he says a learning organization is one where "... people at all levels of the organization (are) encouraged to learn, to acquire new skills, to experiment, participate in pilot projects and make suggestions for innovation..." (90)

Reward systems for organizational learning

Reward systems, then, need to reward the doers (not just the talkers), value the skill of advocacy combined with inquiry (as opposed to advocacy combined with coercion) and recognize the contribution of the evaluators by involving them in the improvement of products or services (rather than leaving their ideas in manuals to collect dust).

To implement Brodtrick's idea about a culture that encourages experiments we need to recognize the dilemma explained by Garvin. He says that managers can be "trapped between perilous extremes. They must maintain accountability and control over experiments without stifling creativity by unduly penalizing employees for failures." He relates the experience of one company that extricated itself from this dilemma by not counting the success or failure of "high-impact" experiments against the employee's performance evaluation, but requiring approvals from four senior vice presidents. The result, Garvin reports, has been a history of productivity improvements annually averaging 7% to 8% (considered to be very high for the industry - steel-making). (91)

It is also now recognized that excessive reliance on professionals is a systemic barrier to organizational learning. The organization may be rewarding failure rather than

rewarding learning by giving the police more money when the crime rate rises (92) or by giving teachers increased salaries because they argue the quality of education (over which teachers have some control) is poor. (93) About social workers, Heffron says their professional focus on poverty, criminality and illness as individual pathologies requiring changed behaviour by individuals, means "the professionals have effectively prevented broader economic or social approaches from emerging as possible solutions to these problems." (94) Stewart, in addressing learning for municipalities, provides a number of solutions: send staff to professional conferences outside their profession; develop links with universities, offering the organization's activities as areas for research and encouraging academics to join advisory committees; encourage professionals to acquire broader management training. (95)

Information

In a learning organization, what would the organization's people be gathering information about?

Here again, Brodtrick (96) provides various insights that can be used to build a framework. A learning organization should be acquiring and interpreting information about:

- **its environment. Here we would include information about:**
 - . **who its customers are (the answer may be changing as the environment changes).**
 - . **what it is they are demanding from the organization. This is not widely discussed by Brodtrick, but is important.**
 - . **whether its mental models of reality fit with reality itself;**
 - . **emerging trends and conditions that are likely to occur in the future. Specifically, the PESTs, (political, economic, social, technological forces) affecting the organization's ability to act.**

- **its objectives. Brodtrick, like Lawler, says all organizational members should hold this information. The information should be clear, understood and accepted by its members (not as simple as it sounds, as anyone who has worked in a complex organization will know!)**

- **its strategies. Members have to know how the organization plans to realize its objectives. (Organizational members also need to hold this information on strategies so they can make important personal decisions about career planning.)**

- **the consequences of its actions. Brodtrick asks: "Does the organization use both success and failure as sources of learning that will lead to future improvement?" The simple, but important lesson about learning is: people learn from their experiences, but often don't experience the consequences of their action, so they don't learn.**

Systems to support Information for organizational learning

- Systems to determine who the organization's customers are:

Many complex organizations simply don't know who their customers are. To resolve this issue, a whole new information industry has emerged, with companies established whose whole purpose is to help other companies set up information systems to do just that.

Warranty card registration systems are increasingly being used for this purpose. As an example, if you buy a "Power Vac" from your local hardware store, you may be asked to mail in a warranty card that asks you for all sorts of information that seemingly has little to do with your decision to buy the "Power Vac" i.e., how often you eat at restaurants, the age of car that you drive, whether you own a cottage, and, of course, your postal code. In turn, this information is linked to a database that provides a profile of the area in which you reside based on information organized by postal code area. (97)

The recently developed "Air Miles" program is another example of a enterprising idea based on the notion that there are many retailers that want to target their marketing more effectively by gathering information on who is buying their products. While the customer is given credit towards air line tickets when he buys gas, groceries or a garbage can, the retailer is given significant information about him, gathered from the application form he completed when he signed up for the "Air Miles" program.

Systems to gather information about demand:

Daft and Huber's article on organizational learning is built around a case study of a fire truck manufacturer that once ruled its marketplace, but after losing most of its business to a major competitor, went out of business. The central lesson from the story is that the company failed because it did not have adequate systems to gather or interpret information about what its customers wanted.

They argue that the failed company had information systems of a "traditional bureaucracy", but it should have the types of systems found in an "extended bureaucracy". (98)

These are two of four models of organizational learning that they identify. They say a traditional bureaucracy is one that has information systems that are low tech (because the data it needs to gather is of low volume) and low touch (because the information is unambiguous and its clear what the organization should do based on the information). The information systems can be set in a centralized, largely functional based structure with few committees or co-ordination devices. (Daft and Huber may not have read Lawler!)

An extended bureaucracy, on the other hand, uses high tech, low touch information systems. The data it needs is still unambiguous, but there is a lot more of it. The data is about a "complex, yet definable" environment. The systems can sit in a centralized structure, but because of the complexity of the environment it's operating in, systems are needed to encourage information to span across organizational boundaries. Surveys should be conducted so that the myriad of data can be organized into useable chunks.

A third model, like a traditional bureaucracy, has a low information load and thus a low tech information system. However, it has a high touch system because it is dealing with information about poorly understood events; a "clear map" of the environment is unavailable. It's called a "self-designing organization". It uses trial and error to figure out the environment and if it wishes to move forward at all, it has to recognize that it has to take a risk that it may not understand its environment. "Learning", in this type of organization, according to Daft and Huber, "will involve frequent changes about organizational purpose, mission and products." The organization attempts to gather information showing cause-effect relationships. Although they don't say it explicitly, presumably, as these relationships are clarified, the organization changes its focus accordingly. This situation requires, of course, a decentralized structure, with more attention given to personal networks and group meetings.

The fourth model, the **experimenting organization**, is both high tech and high touch. Its dealing with the high volume problem faced by an extended bureaucracy, but also the equivocality problem that the self-designing organization faces. It is very difficult to develop information systems in this environment because one has to simultaneously define the environment and gather information about it. The risk of wasteful system development is therefore high and the organization has to be prepared to experiment with a range of information systems. As Daft and Huber say, "rational processes may be attempted, and if unworkable, the organization would use more personal, enactive learning techniques." The organization uses surveys and the organizational structure is low on functionalism and hierarchy.

Reality Checks

Systems to assist organizations to check whether their mental models of reality fit with reality itself are numerous and include the "equivocality reduction" techniques that Daft and Huber discuss, e.g., assigning head office people to stints in the field; empowering front-line staff to resolve customer complaints and therefore giving them an incentive to clarify the customer's expectations; task forces and project teams to surface assumptions and "enact meaning about environmental events". (99)

The other important issue here is for the organization to do a **reality check about its own management practices** to learn whether its own mental model of itself resembles reality. This is frequently neglected by organizations that are seeking to develop grand goals about how they will influence the world around them. As Matthew Lionel has argued, the organization that fails, in its strategic planning process, to open itself up to learning about how to improve its own management practices is likely to encounter a high amount of resistance amongst those who it seeks to change. (100)

The importance of this quid pro quo has been recognized by Ontario's Ministry of Economic Development and Trade in its recent strategic priority setting process. The Deputy Minister asked each employee to make a commitment to a personal small scale quality improvement project. At the same time, in a true display of Argyris' "advocacy combined with inquiry" approach, he openly encouraged staff to identify obstacles to realizing proposed priorities. (101)

Scanning for Emerging Trends

The information systems that many organizations rely on to tell them about their environment includes a review of political, economic, social and technological forces. Some organizations view this activity as very important, even at the heart of what their business is about. David Agnew, the Ontario Government's Cabinet Secretary, has even said that his role as head of the public service "... is not to come up with prescriptions for what ought to happen, but rather to forecast changes that might occur over the next few years". (102)

Matthew Lionel sees the purpose of scanning a little differently. He says organizations can end up gathering mountains of data, then develop some courageous strategies, only to find that the data doesn't help assess the risk of these strategies. He sees the purpose of scanning as "taking the risk out of your strategic choices". (103)

Once the organization has clarified the purpose of this scanning, it can move on to design the scanning system. However, given its importance (either as the core of the organization's purpose or as a sieve for analysis of strategies), the organization should be cognizant of the key issues involved in designing these systems. These issues are outlined on the next page.

- **Equivocality.** Ideas to address this are noted above in the review of Daft and Huber's models.

- **Continuous nature of change.** The environmental scan is often done only on an ad hoc basis usually at the time a strategic plan is developed. An alternative approach which is starting to attract some attention, is continuous scanning. The City of London, Ontario is beginning to experiment with this method. (104) The information systems have to be designed iteratively with the organization's draft mission and strategies serving as the point for which information needs can be originally defined. However, as new information about the environment emerges, the organization may re-orient its mission and strategies and need different or more specific information about that environment.

- **Specificity.** The information scanned is often too general to be of much use to the organization (i.e. while it may be interesting to learn that trade with Mexico will increase, if we don't know in which product areas, the rate at which the rate will increase and the limits to the rate, the information is not very useful.)

- **Determine whether the trend is just a fad.** Hood provides the example of cities in the U.K. that planned and built skate boarding parks in the 1970s thinking that this represented a permanent change in their population's recreation interests. It turned out to be a fad. Trend analysis has to consider this. (105)

- **Spotting the turning point in a trend.** This is another issue identified by Hood. (106) It is similar to Senge's arguments about limits to growth cycles. Once you can spot what the constraint is on the condition growing more pervasive, you can identify whether the trend will soon reach its threshold in terms of influencing your organization, or whether it will become even more significant. (107)

- **Recognizing the speed of change.** This is Hood's term, to describe what Senge calls "delay" in a cycle. Senge has an hilarious story to illustrate this. It involves several different people in a beer distribution chain. Each fail to recognize that there are delays between when an order is requested and received by each of the other players in the system. They each end up taking more corrective action than needed i.e. ordering more and more beer until they all come to realize they have ordered much more than the actual demand. (108) Environmental scanners very much have to be aware of this phenomenon to avoid overestimating (or underestimating) the impact of future trends.

- **the law of anticipated reactions.** This is the notion that certain trends can become self-reinforcing as various players take action based on what they believe other players will do. Environmental scanners have to be aware of this and realize that the trend can turn quite dramatically if one of the players breaks rank. (109)

Information systems for objectives

Information systems also have to be in place to provide staff a clear indication of the organization's objectives. Measurable objectives are vital to the organization's ability to learn. If staff don't have this information they won't likely reach the goal line. If they do make progress, it may be towards a different goal line than what was intended. (110)

Systems to provide information about strategies

Information on strategies can be emotionally explosive issues for employees as the strategies will concern how work will be prioritized, organized and approached. A high-touch information system needs to be developed to disseminate this type of information. Gathering all of the employees in the same room to share this information with them is a common, but dysfunctional, approach.

Systems to provide information about strategies also need to tell people who will actually be responsible for carrying out the strategy, an element commonly missing in strategic plans. Even when responsibility has been identified, some managers are reluctant to identify individuals by name, but rather a whole unit is identified as responsible. As we will see from the empowerment discussion below, this appears at first blush to protect individuals, but can leave everyone worse off; everyone is responsible for everything and no one is responsible for any one thing. The systems, to be useful to the balance of the organization, also have to identify for each of the strategies, who needs to approve the strategy, what resource support is required to implement it, and who needs to be informed. (111)

Is this level of detail really necessary? For organizational learning purposes it is because it surfaces important assumptions. As an example, the City of Sault Ste. Marie's strategic plan calls for significant dredging of its harbour at a cost much beyond the City's own financial capacity. But it doesn't work through the approval, support and inform roles. As a result, it presents an attractive, but impractical plan. The federal government (and perhaps even international governments, i.e., the Joint Commission) would have to approve such a strategy. The conservation authority may be expected to provide technical assistance and Provincial economic development ministries, the local steel industry and international shipping companies, the City seemed to assume, would provide financial support. Environmental, labour and coastal engineering groups should be informed of the decision. (112)

The organization, of course, also needs systems to implement its strategies. These would include systems for:

- knowledge (e.g. if the organization's strategy is to realize its goals by using a more consultative approach, it has to skill its staff in consultation techniques),

- rewards (e.g. if the organization intends to pursue a strategy of quality improvement, it needs to reward the system design improvements) and
- power (e.g. if the organization intends to resolve more of its issues through negotiation rather than formal decision-making, it needs to empower staff to resolve issues at the front-line).

Systems to provide information on the consequences of the organization's actions

John Stewart paints an alarming, but realistic picture that highlights the importance of developing systems that will provide information about the consequences of the organization's actions: "If the present practice of the authority discriminates against certain groups, that discrimination will also be present in the communication channel. If institutional racism is a description of policies, practices, structures, procedures, rules and regulations, which have developed over time and are embedded in the custom and practices of the institution, then the channels of communication will be conditioned by the institutional racism and learning of the consequences will be barred, unless new channels can be constructed and listened to." (113)

There are many systems available to inform the organization about the consequences of its actions. The traditional ones include financial reporting systems that report consequences in terms of inputs (i.e. expenditures) relative to plans. The limitations of input oriented systems have long been recognized. Various alternatives have been developed to respond to this shortcoming including zero-based budgeting, management by objectives and planning-programming-budgeting systems. Each are quite complex and do little to assist the organization that is dealing with an equivocal environment.

An alternative that shows a little more promise is cost/benefit analysis, although it requires some sophisticated analysis to ensure that all costs are captured (e.g. social costs). It also requires some weighting of a complex brew of quality measures (i.e. timeliness, accuracy), quantity measures (i.e. volume), objective measures and subjective measures (i.e. opinion of a respected outside expert). (114)

While measurement of the results of some organizations can be very difficult, we should not simply throw up our hands and say it can't be done. This is paramount to saying we don't want to learn. Even Canadian universities, a public sector group that long considered its results unmeasurable, are now being ranked in terms of performance. As Osborne and Gaebler ask, "... if an organization doesn't measure its results and can't identify success when it happens, can it learn from success?" (115) (116)

Program evaluation has also emerged as an effective method for informing organizations about the consequences of their actions. One type of program evaluation, summative evaluation, helps organizations that face the problem of reporting on progress when objectives and/or strategies are fuzzy. It asks general questions like "What does Program X look like and accomplish?" It also questions assumptions about causation in the program asking: "Why should the particular activities of the program reach the program's goals?" The other major advantage for organizational learning is that program evaluation allows us to look at not just the results of the organization's actions, but the impact of those results. (117)

Management literature and modern management practices are increasingly recognizing the shortcomings of these formal approaches. There is a need to combine the relevant and useful of these techniques and supplement them with a mental model that says if we really want to learn about the results of our actions, we better design systems that allow us to listen directly to the people directly affected. This is inherent in Lawler's ideas on high-involvement management. And, it underlies the thesis of this paper: If we want to improve our organizational learning we have to purposely move knowledge, rewards, information and power down into the organization's lowest levels.

Garvin, Stewart and Osborne and Gaebler each provide examples of how organizational learning can improve by "getting close to the customer". Garvin says that at Motorola, executives, including the CEO, meet personally on a regular basis with customers. He also reports that at Worthington Steel, all machine operators make periodic, unescorted trips to customers' factories to discuss their needs. He concludes: "Conversations with customers invariably stimulate learning; they are, after all, experts in what they do. Customers can provide up-to-date product information, competitive comparisons, insights into changing preferences, and immediate feedback about service and patterns of use." (118)

In the public sector, Stewart reports on a case in England, where municipal architectural and design staff working on the development of a public housing project worked out of converted house on the property. "They learned", Stewart reports, "that they actually had to make decisions, and that quite trivial and mundane and ordinary assessments, were important to people, and that successful management is about activity at this level." (119)

Osborne and Gaebler, also report on a case of a public housing development, but this one is in what was once "an open-air drug market" area of Washington, D.C. The housing management was turned over to the residents, who in turn hired maintenance men who lived on the property. As they say, "If the heat went out over the weekend, they got cold too." This was a simple and effective way for the organization to learn about the consequences of its actions. (120) It experienced these consequences directly.

Power

The term empowerment is widely used, but can mean quite different things to different people. This issue requires clarification before considering the delicate issue of what people in a learning organization would be empowered to do.

Meanings of "empowerment"

To some, empowerment means **pure delegation of every type of decision**. This means decisions of every type are given to the lower-level employees and they are free to make them in whatever way they wish. (121)

Lawler distinguishes between three types of decisions. Decisions about:

(1) day-to-day conducting of business (i.e. rate of productivity, quality, work methods, procedures, etc.)

(2) higher level strategy. Lawler includes here decisions about how the organization will be financed, structured and the kinds of products and services it will offer. (122) Senge is less precise, calling these types of decisions the "complex, dilemma-like "divergent" issues" (as opposed to convergent issues). (123)

(3) human resource management decisions about pay, staffing, promotion, training, and other issues that affect individual careers and rewards.

In between this extreme and the pure "Top-Down" decision-making for each of these types of decisions, there are a range of approaches (listed by Lawler). (124) Any of the following approaches could be combined with all or some of the types of decisions described above:

- Consultative. People at the top make a tentative decision, announce it to the organization and ask for input.
- Consultative-Upward Communication. Individuals at the lower level of the organization are expected to propose ideas and potential decisions to higher levels, but the ultimate decision-making power is always held by people at the top.
- Consensus. Decisions are widely discussed in the organization and considered final only when everyone agrees that it is the right decision.
- Delegation with veto. Decisions are given to lower-level employees and they make the decisions as a matter of course. However, high-level managers retain the power to reject the decision and ask the lower-level people to look at it again.

- Delegation with Policy Philosophy Guidelines. Choices are given to lower-level employees and they make decisions within certain constraints. Guidelines for decision are often given that involve strategy, philosophy or values.

This list means there are at least forty-two different notions of what empowerment is! (Six different approaches, not counting "Top-Down", multiplied by seven different combinations of types). Imagine how many definitions there are of organizational learning, if empowerment is just one part of it!

A tentative model of empowerment in a learning organization:

Each unit of the learning organization, needs to be empowered to make decisions that allow it to position itself to anticipate its environment and produce change, within its existing resources and without impairing its ability to deliver on its strategic priorities. Should it find that these two constraints are dysfunctional to the long term interests of the organization, it should be encouraged to present its case to the balance of the organization for decision. Experimentation for the innovative unit (in the form of carefully, but not intrusively, monitored pilot projects), should be considered as a response by the balance of the organization should it find it can not support the unit's proposals.

Depending on the maturity of the high-involvement organization (i.e. the scope and depth of involvement), the lower-level work teams could be delegated to develop the "policy guidelines" which would then be subject to consensus approval by the organization. Where a consensus does not emerge, the executive would be empowered to impose a decision.

Systems to support empowerment for organizational learning

Empowerment is not a "no-holds-barred" management approach. As Osborne and Gaebler caution, "Governments that want to be accountable to their citizens cannot simply turn their employees free... Voters demand some accountability. Hence organizations that decentralize authority also find that they have to articulate their missions, create internal cultures around their core values, and measure results."
(125)

Management consultant Jim Clemmer, in a recent Globe and Mail article (126) titled "That Empowerment Word Again", identifies other key ingredients for empowerment with his statement that "... many empowerment efforts suffer from lack of "enablement". That is, employees are not well trained, systems hinder more than help work teams and service providers, and processes are riddled with errors or delays".

These writers are saying that empowerment needs to work as a system with the other components of high-involvement management: knowledge, rewards and information.

Power needs to be accompanied, as Kernaghan suggests, with knowledge about group-decision making, inter-personal communications and leadership. (127) Clemmer says employees must also have "... skills to clarify their own expectations - and those of customers. They must be able to analyze their work processes, and to use problem-solving tools and techniques that are based on performance data". (128)

Empowerment also needs the benefit of knowledge of the link between power and learning. Burdett provides a wonderful example, introducing it with the comment, "Paradoxically, it is the act of letting go that empowers". His example is a parent teaching a child to ride a bicycle: "The initial learning involves training wheels. The second level of learning involves the parent holding onto the saddle to give reassurance. Only after the parent lets go can much of the learning and self-confidence that goes with it take place." (129)

Power also needs to be accompanied by knowledge about the "mental model" of leadership as developed by organizational learning theorists. Senge provides one of the clearest set of assumptions, about leadership. He says it is "designing the learning processes" and "mentoring, coaching and helping others learn." (130) If one agrees with this belief, then one will take an approach to designing systems for attracting and promoting organizational leaders that value these results.

Reward systems also have to be compatible with the movement of power to teams in the organization. Specifically, compensation systems, which, are usually based on individual merit pay, must be altered to reflect the fact that results are team-created rather than individual-created. (131) As well, the systems have to reward risk, as the empowered organization begins to learn that "you'll never stub your toe while standing still". (132)

Equally important, reward systems must recognize that much of the resistance to empowering employees comes from middle managers. As Kernaghan explains, "Some may fear for their jobs because successful empowerment can lead to a downsizing of the organization through a flattening of the management ranks". (133)

Lawler acknowledges the importance of job security in his chapter, "How High-Involvement Management Works". As anyone who has experienced "downsizing" in their organization will know, people who fear lay-offs, are reluctant to come forward with ideas on how to save labour costs. Lawler says the high-involvement organization seeks to avoid layoffs by hiring temporary staff during cyclical peaks and asking employees to do work-sharing, take voluntary leaves or work reduced work weeks to respond to low periods. In a true expression of how far an organization can go with empowerment, he reports that in some participative managed organizations,

the employees, as a group, decide on a lay-off policy. "In my experience", he reports, "these groups behave very responsibly when given this responsibility. For example, they typically do not lay off based on seniority ... they lay people off based on their performance and skills." (134)

The importance of job security in an empowered organization was recognized by Magna International Inc. in its recent agreement with the United Steelworkers of America at a tool and die plant in Concord, Ontario. The contract, which provides workers with input into how their particular jobs should be done and "...even make suggestions as to how the company should be run", also guarantees employees will be given priority for hiring should the company relocate or acquire another business within 80 kilometres of the Concord plant. (135)

The approach of the union in the Magna case compares sharply with that of the Canadian Auto Workers, which, Timothy Pritchard reports, "is fundamentally opposed to teams and making workers responsible for 'management's job'". (136) One can't help but compare the context of these two different perspectives on empowerment. The article about the C.A.W. dealt with a long strike by the union, whereas the article about the United Steelworkers talked about a contract settlement that was negotiated without a strike. It resulted in a 2.5% wage increase. A union official called the latter contract "a model collective agreement".

Systems need to provide information to all employees about the range of issues identified earlier: the organization's environment, objectives, strategies and consequences of its actions. The Steelworkers' case illustrates that the company was aware of the importance of sharing information about its environment: "... the company was open about its financial position and competitive pressures during negotiations", the newspaper reports. (137)

Systems also need to be in place to provide information about the consequences of empowerment. Osborne and Gaebler make this point in discussing "community-owned" government. While they advocate tenant managed corporations for public housing, they do indicate that these can be plagued by corruption. In one case they say that the important point is that information systems ("strict, measurable performance standard in the (public agency's) contract") were in place so that the corruption did not go undetected. (138)

We know from Kernaghan that some people can't cope with an empowered organization. (139) And we know from Lawler that an empowered organization can't cope with certain people. (As he admits, "One thing that most high-involvement work structures cannot tolerate is the individual who simply wants to do the same job year after year. This person blocks the movement of others and provides a poor role model.") (140) Clearly, we need information systems in place that can tell us about these consequences of empowerment as well.

Summary

To move organizational learning from an invention to an innovation is no small feat. It requires deliberate, sustained and creative action to move knowledge, rewards, information and power to the lowest levels of the organization. But, as we've seen from the examples above, it can be done.

These "high-involvement" practices are at the heart of our definition of organizational learning. It may be worth reminding ourselves again about the definition developed from the thinking documented in this paper:

the improvement in organizational effectiveness through a continuous process of designing and using systems that give people in the organization knowledge, rewards, information and power to do a quality job collecting and interpreting information about the organization's environment, including information about the consequences of the organization's actions on its environment, and applying understandings gained from this process to the improvement of these systems.

SECTION 4: IMPLEMENTING ORGANIZATIONAL LEARNING IN PUBLIC SECTOR ORGANIZATIONS.

To this point, we've developed a model to guide organizations to implementing organizational learning so that they can fit with their environment, improving their overall effectiveness. It appears, from the numerous examples presented, that public sector organizations can learn and can develop this fit. However, the literature and experience has largely been in the private sector and no organization, whether public or private, entirely fits the model.

While this should be investigated further, there are no obvious inherent characteristics about the private sector, as a sector, that mean the model could not be implemented. To see the model implemented in the public sector, however, we need to first know if there are any inherent characteristics of this sector that sets its organizations apart from private sector organizations. (This forms part A of this section.) Once this is clear, we can draw some conclusions (part B) about the key implications for the ability of organizational learning to take hold in a public sector setting (item (i) of part B).

Remembering Follett's comment that we can't understand the whole by looking at the constituent parts, each of these key implications will be identified and then the affect of combining the three will be analyzed in terms of the effect of the new whole on organizational learning. (The latter forms item (ii) of part B).

Finally, based on these conclusions, we need to ask whether we should change our assumptions about how public sector organizations should define and perform their roles. On what issues should we be prepared to change our beliefs (to unlearn) about public sector organizations and reach a transformation (acceptance)? Lastly, we want to know where the opportunities are now for organizational learning and the challenges ahead. (The last sections comprise items (iii) and (iv) of part B.)

4.A. Inherent characteristics of public sector organizations that distinguish them from private sector organizations

We need first to develop some understanding of what the public sector world looks like - a mental model of reality. We need to start with as objective a model as we can. Not something that is normative, but something that there is a fairly wide acceptance on. One of the ways to do this is to think about what the inherent characteristics of public sector organizations are that distinguish them from private sector organizations.

Public sector organizations are frequently distinguished from private sector organizations on the basis of such issues as level of unionization of employees, security of employment, salary levels for executives. However, these characteristics are not at the heart of what defines a public sector organization. They arise from other features of the organization. We are also interested here in knowing what it is that distinguishes all private sector organizations from all public sector organizations, regardless of the time or place they are operating in.

There are three key distinctions:

- 1. Public sector organizations provide certain goods that private sector organizations are not willing to provide.**
- 2. Public sector organizations have to concern themselves with not just private interests, but public interests.**
- 3. The process for selecting the executive leadership of the public sector organization is open, public and democratic.**

To be clear about our research interest, organizations that don't meet these three criteria are not considered public sector for purposes of this discussion.

1. Public sector organizations provide certain goods that private sector organizations are not willing to provide.

Certain goods will not be provided unless the government steps in and ensures all pay their fair share through compulsory taxes. These are "public goods" or "collective consumption goods" and would include such goods as national defense and pollution abatement.

Steven E. Rhoads, who calls himself "a political scientist who believes that some knowledge of contemporary microeconomics is a prerequisite for intelligent citizenship" (141) says the key characteristics of such goods are: non-rival consumption (i.e. a number of people simultaneously consume the same good) and impossibility or impracticality of confining the benefits of the good to selected individuals. Using the common example of building a levee to protect against floods, (142) Rhoads says, "Almost everyone might benefit from the project by more than the proportionate cost he incurs, but each may still benefit more if others pay all the cost." (143) In these circumstances, the chances of the beneficiaries agreeing to voluntarily pay (a private company) are very slim. Government has to step in to fill the void left by "market failure".

2. Public sector organizations have to concern themselves with not just private interests, but public interests.

Aside from public goods, governments have to concern themselves with the public interest. As Follett argued, "the supreme function of the state is the moral ordering of social relationships." (144)

Similarly, Rhoads reminds us, "A healthy polity must ... promote institutions that build consensus and strengthen ethical standards. Rather than continually giving narrow self-interest its head, it must sometimes seek to make narrow self-interest less narrow." (145)

Government must also deal with tragedy of the commons issues where if everyone tries to realize his private interest, the public interest, and in turn private interests, will suffer. (146)

The main tool to respond to these issues is **legal authority** to require people to take or refrain from taking certain actions. As Follett, says "... law must be embedded in the social process and should not be a restraining force to protect interests but a positive force to broaden and deepen interests." (147) This tool, of course, is not available to private businesses. (148)

3. The process for selecting the executive leadership of the public sector organization is open, public and democratic.

Unlike a private sector organization, a public sector organization's executive leadership is selected openly by the public in a democratic fashion. Depending on the level of government, the leadership stays in office as long as it does not suffer a non-confidence vote by the legislators or until its fixed (or conventional) term has expired.

(While some writers refer to senior civil servants as "executives", the term here is used to mean only those persons who hold political office and who are empowered to make major decisions affecting their organizations. At the federal and provincial level of government, I am referring here to Cabinet and Cabinet ministers. At the municipal level, except where there is a board of control, I am referring to municipal councillors. Where this a board of control, I am referring to the board members.)

The decision-makers are selected by what is recognized as an imperfect system, but one that stands in good stead relative to the choices provided in history (e.g. patriarch, dictatorship, monarchy.) Their organizational management wisdom may be a consideration in their selection. However, even among those who view this to be important, it may be seen as only one of the considerations. Intangibles, like their values and political ideology, are what they tend to promote as the reasons why they should hold office.

Some may come to the particular executive office not because they had a specific interest in the subject area, but because they represent a certain area of the country. They may, in fact, have not sought a position of any sort on the executive.

During their term in office, convention holds that the executive of each department is wholly responsible for the actions of his/her department (commonly known as "ministerial responsibility"). No one member of the executive can bind the balance of the executive without their consent (translated as the notion of "collective responsibility").

Most actions of the executive and their "servants" (i.e. public servants) are open to public scrutiny.

Continuity of leadership is more likely to be absent than present. Individual members and the collective executive can be dismissed for reasons that would be viewed as unjustified in the private sector. They are subject to the whims of what can be a fickle electorate and unforgiving press. Planning for a transition is recognized as likely to be needed. Despite this obvious need, succession planning is not done. It is not rewarded. The executive members are not, in fact, expected to plan any transition of power either of their own individual position or of the organization as a whole. (149) It is not a situation like General Electric, one of our examples of a learning organizations, where the Chief Executive Officer intends to be in his position for fifteen years and it is well known before his departure who will assume his position. (150)

4.B. CONCLUSIONS

(i) Conclusions about the key implications for the ability of organizational learning to take hold in a public sector setting

(a) Key implications for organizational learning arising from government as provider of public goods

There are four key implications for organizational learning arising from governments as provider of public goods.

Firstly, the benefit of government's services for a particular individual (or even a large geographic area) are especially difficult to measure. As we saw earlier, if we can't measure the results of a service, it is not possible to assess its success. It offers us little organizational learning if we don't know who benefits from the organization's actions.

Secondly, no one person has a strong incentive to keep the costs down. Because the only practical response to the indivisible benefit issue is general taxation (as the benefits can't be confined to selected individuals), the cost of the service is spread over a large group of people. As a result, as Rhoads says, "... costs of a bad decision and gains from a good one are spread among all citizens". (151) This clearly has implications for our ability to learn about the consequences of an organization's actions. There is no direct reward to encourage learning.

Thirdly, demand information is unclear as we don't easily know to what extent an individual receives a benefit (and would be in demand of the service) nor do we know whether people are consuming more of the service because they don't have a direct incentive not to; (i.e. the cost of their consumption will be spread over a large number of people). If we don't know where the demand is coming from for the service and at what level and for what purpose, we can overshoot in our efforts to address the issue. The organization needs this specific information about its customers in order to learn how to satisfy their needs. The public goods aspect of government activity makes this difficult to obtain.

Fourthly, the organization providing the service is likely to be unique (i.e. monopolistic). As Anthony and Young would remind us, there is only one Department of National Defense. It does not have to compete to stay in business. (152) Without competition, the organization has difficulty learning what it could be. It can't do benchmarking as there is no organization to compare its performance with. Its objectives may be set too low or aimed at the wrong ends. It may continue to stay in business even though its service quality is very low and its costs very high. Its consumers have no other choice.

(b) Key Implications for organizational learning arising from government as steward of public interests:

There are four key implications for organizational learning arising from governments as stewards of public interests.

First, the organization devotes considerable energies to **defining what the public interest is and how to translate this into government policy**. These are the important areas for its organizational learning. Plumptre (who has consulted to both public and private organizations) enunciates the comparison with private sector organizations when he states:

"Just like marketing, finance, production, and more recently, human resource management, corporate planning and corporate affairs might be said to constitute the core functions of business administration, policy development is a core function in government. (153)

Its core concern then, unlike private sector organizations, is determining what business it should be in. It is, fundamentally, more concerned with the substance of its work, than process (i.e. how to stay in business). As Peter Aucion has argued; "What the state does is what matters; in private organizations, on the other hand, it matters little whether a corporation produces guns or butter, as long as it does so economically and efficiently." (154)

While it has to concern itself with how it conducts its business, the more substantive concern is whether it should even be in the business. As David Agnew, Ontario's Secretary of Cabinet, recently argued: "We have a responsibility to ask ourselves not only what can we do better, but to question what we are doing - should someone else be doing it, are there different ways of organizing ourselves, or should we do it at all." (155)

To summarize, government's **first tier** of concern in organizational learning terms is to define what the public interest is (e.g. to have clean air). It also has to answer here the question, why is the issue a matter of public interest? Its **second tier** of concern is defining what its own objectives are in the subject matter of the public interest (e.g. to not allow the pollution count to exceed x level more than three days per year). Its **third tier** of concern is one of **strategy**, how to realize its objectives (e.g. install air cleaning devices at major pollution sites, fine polluters, prohibit the sale of air polluting devices, create a "pollution credits" exchange (market). (156) The **fourth tier** of concern is, if it should deliver the service itself, how can it best do it. It is at this tier that traditional organizational learning literature is of greatest assistance because the issues at this level are similar to private sector issues. For private sector firms, while they have to consider the first two issues, these issues are not at the core of their concern. The third issue, strategy, is something they have to concern themselves

with, but the range of tools available are much more limited (i.e. they don't have powers of taxation or authority to pass laws).

Second, and related to the first point, the more resources the organization devotes to solving the "how" problem (i.e. service delivery), the less it has available to deal with its fundamental activities, the "why" and "what" problems. As Peter Drucker has said: "Any attempt to combine governing with "doing" on a large scale, paralyses the decision-making capacity. Any attempt to have decision-making organs actually "do", also means very poor "doing". They are not focused on "doing". They are not equipped for it. They are not fundamentally concerned with it." (157)

Third, the focus on building consensus that both Rhoads and Follett are talking about means that systems to facilitate **building healthy relationships** takes on a whole new significance in public sector organizations. Building these relationships is regarded as an end in itself. The organization is not focused on how to re-engineer processes for building better widgets. It is dealing with something much less concrete. Its learning is thus on these softer issues.

Plumptre again draws the public sector/private sector distinction for us when he asserts that policy making in the public sector "... is really about the establishment of relations and the preservation of certain norms rather than the achievement of the tangible, quantifiable goals in some of the business planning literature." (158)

Fourth, because governments have, in law, a type of power available to them that private sector organizations do not have - the coercion type of power - it can choose not to learn. This falls out of Deutch's argument that power is having the ability to never have to learn. (159) In simple terms, it can chose to ignore market signals and still stay in business.

This problem is compounded by the fact that the market signals (i.e information about the "public interest") that it does receive are fuzzy. Daft and Huber would say this information about the environment is of "high equivocality". (160)

To illustrate, was the election of Bill Clinton an endorsement of his policies or a repudiation of Bush's performance? If it was a case of Bush being defeated (rather than Clinton winning), what caused the defeat? Bush's response to globalization of the American economy? His judgement about the selection of a Vice-President? Public knowledge of his dislike for broccoli? The point is that the causal variables are not clear.

(c) Key Implications for organizational learning arising from the process for selecting the executive leadership

There are five key implications for organizational learning arising from the process by which public sector organizations select their decision-makers.

First, there are strong forces that work against double loop learning. This because the organization's executive, as Barth says "... enters office with "the answers" based on ideology that is labelled conservative, liberal, or somewhere in between. The fact that this scenario is accepted is evidence of the difficulty of double-loop learning occurring in government." (161)

Barth explains this point by suggesting that if we work from the assumption that the executive "has the answers", then we don't concern ourselves with questioning the causal validity of the assumptions underlying their ideologies (162) (i.e. if their political ideology is one of harsher penalties for criminals, organizational members don't question the executive's assumption that stiffer sentences will reduce crime.) The type of "advocacy combined with inquiry" suggested earlier obviously has a more difficult time taking root in public sector environments.

Second, a problem that at first glance appears to be the converse of the first, confronts public sector organizations. Instead of an executive committed to "making this organization the best in the industry", the public sector organization may be lead by an executive that has no clear vision of what the organization should look like in the future.

Plumptre relates two amusing stories that very much highlight this problem: "... one former deputy minister of finance commented in respect of ministerial involvement in policy, "my experience, as often as not, was that the minister had no view -- and I don't say that critically"". He followed this with a story about one deputy "whose portfolio was apparently seen as a stepping stone for advancing ministers". This deputy told him: "I trained a new minister every year and I ran the department"". (163)

Two of the more thoughtful articles on organizational learning in the public sector (Daneke, 1984 and Richards & Shujaa, 1990) point to the importance of **vision** as a guiding force for organizational learning. As was discussed in the review of information systems for strategy and reviewing consequences of actions, unless the organization has a sense of what it wants to be, it won't be able to get there and, of course, won't learn about what it should have done differently. Consider Richards and Shujaa's explanation about why the high school dropout problem remains unsolved: They quote a district school superintendent in Arizona who told them: "there is no clear direction in state education policies, no vision about what Arizona should look like except to keep taxes low". (164)

Third, the "ministerial accountability" and "collective responsibility" aspects of the public sector organization impair certain key features of organizational learning. Specifically, empowerment, and learning from customers. Each of these are described below.

An organization that operates on the convention that the top person is responsible for the whole organization's actions is not one where staff can be easily empowered. As Aucion says, these executives are accountable for what the Government does and "not surprisingly, they therefore insist on having authority over both policy and administration." (165)

To support the idea that the top person is responsible for everything the organization does and none can speak for the others, government has developed a secrecy about its actions. Letting the word out about what the organization might do is perceived in some instances, in accountability terms, to be of a similar significance as actually making the decision about what to do. Consequently governments face inherent difficulties in learning about their stakeholders' needs. Informal consultation is difficult to get approved because of concerns that the word might get out about the Government's intended direction or that certain stakeholders might be excluded. In other words, as a government policy developer, it is very difficult, without engaging in elaborate consultation, to talk to your "customers" about the implications of your proposals. This a far cry from the Motorola and Worthington Steel cases described earlier.

Fourth, the transparent environment that public sector organizations operate in makes critical thinking, experimental learning and etiologic problem solving difficult. As David Agnew said in a recent address to public administrators, "We have a particular fishbowl we swim in every day and we're all keenly aware of that. This sets up an entirely different set of expectations." (166) These expectations mean that the organization, like individuals who have experienced the dysfunctional rewards/punishments that Argyris discusses, can be afraid to say "I don't know". They are "expected" to know. They are in the spotlight and they "better have the answers". There is an incentive, then to create answers, regardless of their truthfulness. At the same time, they can be afraid not to proceed for fear they won't "get it right the first time". This is particularly problematic for organizational learning.

Our model requires the organization to operate with a "critical mind" where the ability to ask questions has a high value. This is illustrated in the Three Mile Island case reported in the article "Thinking about Government Learning". The Nuclear Regulatory Commission (NRC) responded in what a review commission later called "an atmosphere of almost total confusion". Etheredge and Short argue that this confusion arose not because of a "scientific learning" problem, but "... because they did not have, on their staff, experts who could tell them even the questions to ask." They report that the NRC didn't obtain this assistance until after the news media began to

report on this missing learning ability. (167)

Given what we now know about types of learning, we can easily identify governmental organizations as operating in an environment of high equivocality (i.e. information is ambiguous and it's not very clear how the organization should respond to it once it determines what it means). As we found, experimentation is the most effective response to this situation. Again, however, experimentation is discouraged when the mistakes of learning are out for public lambasting. Remembering the earlier advice that we won't stub our toe standing still, it should be clear that we can't have the benefit of learning without the cost of mistakes. Governments are most in need of experimenting, but have the least incentive to engage in it.

Operating in a fishbowl also means that government's strategy can be focused on the symbolic rather than the etiologic (i.e. addressing the symptoms rather than the root cause of the problem.) Richards and Shujaa, in their study of organizational learning in the education policy field, remind us about the implications for measurement of an organization's objectives and consequences when the focus is on the symbolic:

"... when any single indicator is isolated for public scrutiny, an organization under pressure from clients may seek relief by inappropriately spending a small amount of resources to improve the indicator rather than devoting a larger amount to seeking a solution to the problem. This is even more the case when public criticism is unrelenting and the solution is not obvious." (168)

To illustrate, the researchers report that over the course of a one month period the New York City school system went from declaring that its dropout rate had declined from 35.3% to 30.7% (following a \$38 million prevention effort), to saying, after public questioning by experts, that the drop out rate had actually increased to 37%. (169)

The study reports that one of the strategies employed by school administrations, is for the organization to raise retention rates (of high school students staying in school) rather than "confront the more difficult problem of raising high school completion rates". Alternatively, administrators "redefine" the criteria for drop-outs. They will also take credit for reductions that are the result of other organizations' efforts. **How much actual organizational learning can be going on here when measurements are so unclear?**

The fifth, and last, key implication for organizational learning is that arising from the lack of continuity of leadership. As we now know, implementing organizational learning faces many barriers. Its focus on problem solving, implementing systems and empowerment all take time. To learn about the consequences of the organization's actions may take several months. In a governmental organization, as public administration scholar John Langford says, "... most deputies and ministers don't have much intimate knowledge of the business that the organization is in, having just arrived only moments ago from somewhere else." (170)

Etheredge and Short illustrate in dramatic terms what the implications are for organizational learning and, in turn public safety, of these breaks in "institutional memory". Reporting on the Three Mile Island case, they say systems were in place to deal with assisting the population affected by a radiation release in the event of an accident; however, the system, the Inter-Agency Radiological Assistance Plan, (IRAP), that indicated what to do in the event of such a release, was not used. As the researchers report:

"In the change-over of top-level personnel to the Carter Administration, no senior official was left at the White House who knew IRAP existed, or that there was a phone number to call at the Department of Energy to trigger it." (171)

SECTION 4B (ii) Key implications for organizational learning arising from the combination of implications.

It is simply no longer valid to argue that organizational learning in the public sector and private sector is the same. It's not. We have found that organizational learning, in a public sector environment, will function differently than organizational learning in a private sector setting in at least thirteen different ways.

Again, recognizing Follett's advice, our challenge now is to determine what this new complex chemical is. It's obviously not just simply a case of adding up all these factors and concluding that organizational learning in the public sector is the sum of all of these parts. In some instances factors may cancel each other out: depending on the situation, openness of the political process may put a check on monopolistic powers. Similarly, the political executives as stewards of the public interest, have an incentive to keep the costs of the organization down (whether to maintain credit ratings, popular opinion or a free economy).

In other instances, we might get a more potent result because of the interaction of the factors. One way to conceptualize these results is in terms of their impact on the tiers of concerns of government.

(a) Fuzzy Definition of the "Public Interest"

Firstly, then, we would want to know what this new compound means for government's concern with defining the public interest. It means a fuzzy definition of the public interest. This because of the combination of the political process, the importance of managing relationships, the lack of vision and general taxation powers. The political process means that a range of interests are brought to the table in responding to a policy issue. However, because of the importance of managing relationships, some of these interests may be given more weight than they otherwise would to satisfy concerns about maintaining longer term relationships. This has been pejoratively dubbed "logrolling". This process, when combined with no clear vision of what the world should look like when the log rolling has churned up its results, can leave the policy area ripe for manipulation. When combined with general taxation powers, we can find that special interests can easily begin to dominate the agenda of defining the public interest. These interests will have a much greater incentive to influence the political process than the general population because the costs of funding their policy proposal is spread over a large number of taxpayers, even though the benefits are confined to a few. (172) The classic case here is agricultural policy. (173)

This is not an environment that leaves itself open to learning. Defensiveness is high. Clarity about expected results is low.

(b) Fuzzy Objectives

The second tier of concern doesn't fair any better. When the public sector organization attempts to define its objectives, it may, of course, be doing this in the context of the fuzzy definition of the public interest. Because of its extensive powers, it can end up legislating fuzzy objectives and then taxing its individuals and businesses to carry them out. This situation can easily arise in environmental regulation. Technological changes and the externalities with the issue can quickly change the definition of the cause of the problem and how to measure and respond to its impact.

Arising from this, can be the "his heart's in the right place" phenomenon. That is, the politician may think he is solving the problem, but the definition of the problem has changed. In this situation, learning about the causal variables behind the problem is crucial for organizational learning. It can't establish objectives that will address the issue unless it knows clearly what the issue is. And, as we now know, without clear objectives it can't progress in its learning.

(c) Powerful Strategies?

The features of a public sector environment when they come together, leave the organization with some potentially very powerful strategies. Its power of taxation (given to it to satisfy its role as provider of public goods) plus its law-making power, (given to it so it can realize the public interest) position it to develop a fit with its environment that would be the envy of many private sector organizations.

In reality, however, government's ability to develop a fit with its environment is impaired by the environment itself. This is because governments operate in an environment of globalization. As Richard Simeon has argued, "globalization reduces the power and capacity of all governments". (174)

Globalization has been defined as "The intensification of world wide social relations which link distinct localities in such a way that local happenings are shaped by events taking place thousands of miles away and vice versa." (175) Two recent examples, each reported in Canada's national newspaper on the same day, demonstrate what globalization means in the Canadian context.

It means that decisions made by European fishing interests helped to virtually eliminate cod fishing, "the mainstay of the Newfoundland economy for five centuries". It means B.C. mining companies and miners "lost out" to American environmental interests when the B.C. government "decided" that a huge mineral rich area near the Alaskan border will be preserved as a natural park and will be linked to an adjacent Alaskan park. (176)

"Decided" is used loosely here. How much deciding did the B.C. government actually do? The decision about whether to preserve or mine the area was largely influenced by external forces, "thousands of miles away" (i.e. Washington). Similarly, how much "deciding" could the Newfoundland government do about its own economic future in light of forces "thousands of miles away"?

Although the strategies are many, so are the constraints. Developing a fit with the environment has been found to be one of the keys to organizational effectiveness and, in some respects, the *raison d'être* of organizational learning. If the goal of organizational fit is this elusive, one can begin to question whether organizational learning, is likewise elusive. This important issue deserves deeper investigation than what can be afforded here.

(d) Poor Service Delivery

The fourth tier of concern for government is **service delivery**. As we found earlier, it is at this level that traditional organizational learning literature is the most relevant. But even at this level, there are some distinct differences between public and private sector organizations that means organizational learning has to be approached differently.

The fishbowl issue, colliding with the general taxation power, create a result that could be considered an anti-learning incentive. Organizational members are rewarded not for innovation and saving, but for "keeping their noses clean". There is no incentive to save because the savings are not passed back to the organizational members (costs are distributed to everyone). The focus on reducing error (single loop errors, that is), becomes paramount driven by the fear that the political executive might be "embarrassed". A program may be totally ineffective in its impact, but as long as the government does not end up sending a cheque to an ineligible person, the program may continue. Managers are held accountable not for impacts of their programs, but error rates.

As well, poor demand information joined with the monopolistic nature of some government activity and the inevitable, but necessary, lower attention to service delivery (in favour of policy development), leave governments ill-equipped for organizational learning. The organization does not easily know who uses its services and why or how its services compare in terms of cost and quality to other service providers. Sadly, it does not have an incentive to correct this because its executive is focused on larger issues like whether the organization should even be in the business. This, again, is not a setting in which organizational learning is likely to take hold.

4.B.(iii) Rethinking How Public Sector Organizations Define and Perform their Role

While one may conclude that this is a rather pessimistic assessment of organizational learning's chances of success in public sector organizations, these organizations should not reject the concept. Aspects of the model (developed in this paper) have application to some current approaches to public sector management. In other instances public sector organizations need to rethink the way they perform their role and even what their role is.

Some tentative proposals for these adjustments are presented here. Future research should focus on the usefulness of these adjustments and the development of others.

These proposals are organized using the four tier framework of "government concerns" developed earlier.

(a) Clarifying the "public interest"

Aaron Wildavsky (1972), Gareth Morgan (1986) and Arthur Kroeger (1993) all recognize that organizations won't get very far in balancing conflicting notions of the public interest by simply asking a series of single interest groups, one at a time, to provide their views. As Kroeger says, "They will only be too eager to do so, and at the end of the day you will be left with the impossible task of reconciling the contradictory demands you have been presented with." (177) They each advocate structuring consultation processes so that the various single interest groups must themselves come to grips with some of the trade-offs that governments face.

It works like this: special interest groups that believe, as an example, that the public interest demands that more tax dollars be spent on policing, are brought together with groups that believe the public interest is to spend more on social services. The purpose is for each group to learn about (i) the other's concerns, (ii) the interconnectedness of their concerns (e.g. increased violent random crime is rising at the same time as the Children's Aid Society is having to deal with more crack addicted babies), (iii) their collective interests, which may be translated into the "public interest" (e.g. reduction in substance abuse) and (iv) strategies to realize these interests without increasing the total tax burden (e.g. police and social agencies jointly develop discussion groups at the primary school level to allow students to learn about the dangers of using crack).

In effect, this means creating a "market of ideas" to help define the public interest. This is simply an application of the market's competition feature that leads to some of the same positive results that the market provides: enhanced creativity, conflict resolution and efficient allocation of resources. It is, in that sense, an innovation in public sector management. (178) It helps the organization, and its stakeholders, learn.

Other ideas presented earlier can also assist here: politicians having a vision of what they see as a better world, as we found, is crucial to defining the public interest (and having systems that support attaining this vision); high involvement management practices allow organizations to get in touch with social values, a big part of defining the public interest; Heffron's ideas on curbing the influence of professionalism help us to avoid covering up underlying economic and social issues; implementing information systems that scan for trends and developing organizational structures that can respond to information of high equivocality.

(b) Clarifying Objectives:

There is also a need to adjust public sector organizations so they can develop a better fit with the double loop learning aspect of organizational learning. As Barth argues, "From an organizational learning perspective, a limited role for the career civil service in the public policy process is dysfunctional." (179) He provides an example from his experience during the Reagan administration with the Aid to Families With Dependent Children (AFDC) program. He claims that there was a heavy emphasis on reducing error rates in the administration of the program. Whether the assistance was directed at the right people or it had the intended results and impacts were unimportant. He says,

"If double loop learning were occurring, staff would raise the following kinds of questions:

- . Is it appropriate to place such an emphasis on error rates, given other pressing concerns such as teenage pregnancy?
- . Is the reduction of error rates a meaningful indicator of the AFDC program's success?
- . Does the focus on error rates imply an institutional bias against the recipients?

These are the types of questions which address the agency's priorities, mission, and underlying value.

However, during my tenure in the federal agency responsible for the AFDC program in 1984-85, these types of questions were not tolerated from within the agency because the administration was determined to reduce error rates. If career civil servants had problems with this emphasis they should keep them to themselves or find employment elsewhere." Barth concludes: "Clearly this is not an environment conducive to higher level or double loop learning." (180)

If Barth has such a good idea, why has it not already been implemented?

The fundamental reason is outdated notions of **accountability**.

The Wilsonian notion of accountability, based on a political/administration dichotomy, is, to use Stivers words, "simplistic and outmoded" (181) It ignores the interconnected nature of the world. This is important in this discussion because interconnectedness characterizes the idea of globalization advanced earlier. If everything is connected to everything else, should politics be separated from administration? This is the essence of the argument of not only Luke (182) in his essay on interconnectedness, but also of Stivers (183) in her feminist perspective on public administration and Perez in his paper on how an ahistoric and voluntaristic approach to public administration has brought public administration to the brink of irrelevance. (184)

Should we be worried about the power of public administrators in an environment where they are involved in determining the role of government?

There are three important perspectives on this question. One is that the concern with accountability should be balanced against a concern with innovation. (185) Another perspective is that accountability has to be redefined, so that the focus is on outputs, not inputs. (186) A third perspective is that we should not be unduly concerned with public administrators assuming this role because of the pluralistic nature of our governance system. (187)

Improving organizational learning may be the one common goal that politician and bureaucrat can agree on. It may take some coaxing by each side, but focussing on this goal may serve to build a much healthier relationship.

How would a public sector learning organization actually go about clarifying objectives? Alen Martin provides advice on three approaches.

One is to do a "semantics test" of key words in the "objectives statement" used by the various supporters of the program. (e.g. "effective" to Mary may mean timely, but to Joe it may mean reliable.) Another is to know how to detect **hidden agendas**. (e.g. is the organization opposing the plan simply to avoid having to confront its own internal contradictions?) Learning organizations also need to know how to perform basic **cause/effect** tests to assess the assumptions behind the stakeholder's objectives. These are much the same as Bryson's ideas about scenario building. (188) (e.g. What would happen under a best case scenario if we followed the stakeholder's suggestion? Would we have solved the fundamental problem or just the symptom? Would the problem then manifest itself in other forms? Could it be that the cause and effect are reversed?)

Advice on clarifying objectives is also provided by Etheredge and Short in their paper, "Thinking about Government Learning". (189) In reference to the Bay of Pigs crisis, they argue that the professional staff briefing the President underestimated the need

for "well designed procedures including explicit, direct, oral reminders" for the President. Relying on the President implicitly knowing "the obvious" was a tragic mistake. Had he been given explicit information about the situation, he may have altered his objectives.

(c) Building Strategies

In order to learn, governments have to increasingly question the assumptions they use to build their strategies. Argyris reminds us of this when he recounts the story of the City of New York finance officials who said no one would let the city go bankrupt. (190)

Governments also have to build information and knowledge systems that tell them how they can realize their interests. Specifically, they need to gain information and knowledge about the traditional "supply side" tools available to government (e.g. grants, monitoring and investigation), but also the "demand side" devices (e.g. peak pricing, impact fees, government using its position as holder of important market information or as a consumer to influence demand). (191)

An advocacy combined with inquiry approach is required to build strategies that are practical. The Ontario Ministry of Economic and Trade's "strategic priorities exercise", discussed earlier, provides lessons for other public sector organizations about an effective approach.

(d) Improving Service Delivery

Throughout this paper, but particularly in the first three sections, there have been many examples of how organizational learning can improve service delivery. However, many of these are from the private sector. As Rhoads reminds us "... governmental processes do not have mechanisms for promoting efficiency that are as powerful as the market". (192) Later he tells us: "To the sceptical but less knowledgeable noneconomist, it should be reassuring that this promarket judgment is shared by both liberal and conservative economists." (193)

It would be worthwhile to investigate to what extent the same conclusion could be drawn about learning. One hypothesis is that if an organization experiences a demonstrable increase in the quality of its organization's learning, then it may also experience a sharp increase in its efficiency. It would then be important to determine to what extent market competition influences each of these variables. We may find that competition between service providers may be the overwhelming explanation for why organizations learn; without competition, the organization is missing an important incentive for learning. Should competition be found to be the key variable, public sector organizations should begin to rethink whether the public would be better served

by placing responsibility for service delivery with the market or, failing this approach, creating a market where the service is currently in a monopoly.

These ideas, labelled "The New Public Management", (194) are emerging concurrently with organizational learning. Further efforts to find convergence (and divergence) between these themes should be pursued. The interrelationship and interconnection has only been touched upon in this paper with its reference to Gaebler and Osborne's work, Reinventing Government.

We know market devices will not serve all our public administration needs. Policy management, regulation, and the higher values issues (i.e. enforcement of equity, prevention of discrimination and exploitation and promotion of social cohesion) that were referred to in the earlier discussion about public interests, should not be given up to the market. (195)

Governments should govern. This role should not be given away. The challenge for public administration in the future will be to maintain accountability for this governance activity without stifling innovation. (196) Improving organizational learning through some of the devices that have been discussed earlier, (i.e. program evaluation, rewarding learning and getting closer to the customer), will be essential in resolving this tension in public sector environments.

Summary:

We need to ask whether we should change our assumptions about how public sector organizations should define and perform their roles. Especially on the issue of the relationship between politicians and bureaucrats and on the issue of how governments deliver services, we should be prepared to change our beliefs (to unlearn) about public sector organizations and reach a transformation (acceptance).

4.B(iv) Organizational learning - the opportunities available and the challenges ahead

All effective public sector organizations have to have a capacity for quality learning.

They need to understand what learning is, what an organization is and what organizational learning is. They need to grasp the paradoxes of organizational learning and understand how it can be moved from an invention to an innovation. This knowledge is all useful to activities of public sector organizations whether they wish to improve their public consultation processes, staff training, business practices or policy development. (Again, the author's own experience with the latter is described in Appendix A.)

Those who wish to improve their (public sector) organization's learning face two interconnected and interdependent challenges:

(1) Refining the organizational learning model to fit with the realities of your organization's environment. The theory developed in Sections 1 to 3 should assist.

(2) Refining your organization to fit with the realities of your model. Here, you should ask why your model of organizational learning has not already been implemented. The answer may lie in the systems that give people in your organization knowledge, rewards, information and power to do a quality job learning about their organization's environment.

What would an audit of your organization's systems reveal about the contribution of these systems to the organization's ability to learn? Specifically, what would it reveal about how your organization:

1. gives people knowledge about how the organization learns?
2. shares knowledge as an alternative to maintaining excessive hierarchy?
3. rewards "advocacy combined with inquiry"?
4. gathers/interprets information on customers and their demands?
5. opens itself up to learning about its own management practices?
6. informs staff about the organization's objectives and strategies?
7. measures and evaluates its results and impacts?
8. ensures people experience the consequences of their actions so they learn?
9. empowers its people to position the organization to anticipate its environment?
10. seeks congruence in sharing knowledge, rewards, information and power?

Acting positively on this audit can assist the people in your organization to clarify both the public interest and the organization's objectives as well as to build effective strategies and improve service delivery.

I hope this helps you get started on your organizational learning journey.

POST SCRIPT:

This paper was largely developed prior to October, 1993. Since then I've continued to learn about organizational learning through dialogues with friends (in the public and private sector); receiving comments on an outline of this paper distributed to a small group of interested practitioners; gaining the views of an academic on the whole paper; observing the environment in which I work and live.

From these experiences I am more optimistic about the utility of organizational learning. I've found more examples of where an organizational learning orientation is being practised and rewarded. These findings are summarized below.

- A friend with I.B.M. Canada tells me that "Big Blue" recently recruited a Proctor and Gamble "brand marketing" executive. He spent his first few months with IBM interviewing customers, an almost unheard of practices in an organization that has recently paid dearly for not taking the time to learn about its customers. I.B.M. staffers are now being instructed by this executive.
- The Heritage, Arts and Cultural Industries Policy Branch of the Ontario Ministry of Culture, Tourism and Recreation recently used an organizational learning approach (they labelled it a "team based approach") to develop a new organizational design. It involved creating one organizational unit where there had been three and removing a layer of management. It was awarded an Amethyst Award earlier this Fall for this approach. (The organization was the only policy unit in the Ontario Public Service (O.P.S.) to gain this award which recognizes innovation in the O.P.S. Twenty-two awards were granted by an outside panel of judges that included Otto Brodtrick, whose work on organizational learning has significantly influenced this research paper.)
- The basis for decisions about which candidates for medical school will be funded by Ontario taxpayers (to the tune of about \$175,000), and what form that training will take, is being revamped using an organizational learning approach. Instead of the professionals deciding these issues, taxpayers and health care clients are involved through a program that surveys Ontarians about what they want from their doctors. The program includes focus groups of community leaders and health care clients. The reward system has changed so that "...knowledge alone isn't enough to make a good doctor". An official with the College of Physicians and Surgeons has argued that the new approach means that "demonstrated personality flaws" (displayed in training by two doctors recently disciplined for sexual abuse of patients), will get as much attention as the student's medical knowhow. ("Caring comes first with today's new doctors", Toronto Star, December 4, 1993, p. A 1.)

- The Conference Board of Canada, in a recent study of service quality efforts by public and private sector firms in the U.S., Europe and Japan, found that there are five keys to "maximizing employees' potential":
 - education or training enabling employees to perform better;
 - resources to empower staff;
 - encouraging or welcoming employee involvement;
 - shared authority between management and staff;
 - rewards and recognition systems for excellent performers."

(Topical, Oct 22, 1993)

This study echoes the finding of the American based study cited in this paper: there is a strong positive link between competitiveness and high-involvement management practices. These practices are at the heart of organizational learning. The earlier we recognize and act on this, the better we can respond to an increasingly competitive environment.

- The theme for the 1994 Institute of Public Administration of Canada (I.P.A.C.) awards for innovative management is "Reshaping Government". In announcing the competition, the Institute says, "you will note that the theme is broader and more inclusive than in previous years when the themes were "service to the public", "empowerment", "partnership management" and "doing more with less" ". (Public Sector Management, Volume 4, no. 2, p. 15) This is exactly the lesson from organizational learning: innovative management is not just using one management tool, but many. It concerns not only people, but systems. Not only power, but also knowledge, rewards and information. Not only service delivery, but clarifying objectives and building strategies. It also reflects the focus on refining the role of government which the last section of this paper calls for. With the approach I.P.A.C. has taken, the competition should provide us with some more good examples of organizational learning in public sector settings.

CURRY CLIFFORD
Toronto, Ontario
December, 1993

Municipal

A F F A I R S

October 1993

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Ottawa-Carleton legislation a team effort

After five years and three studies on regional government in Ottawa-Carleton, the recent introduction of legislation to reform it makes Municipal Affairs staff who worked on the project happy people indeed.

The legislation means that, if everything goes according to plan, in about a year's time, the region will have a directly-elected council, a regional police force and enhanced powers over sewers.

The latest round of studies began in May 1992, when Graeme Kirby, former CEO of the National Capital Commission, was appointed to get the public's views on regional government in Ottawa-Carleton. The legislation is the result of some of his findings.

Curry Clifford, a senior policy adviser in the Local Government Policy Branch who coordinated the project, says that getting Mr. Kirby's reports produced required a different way of working.

For the release of each report, ad hoc teams were put to work.

"We got everybody in the same room - the translator, the production people, the communications people, the cartographers - and got them all involved in developing a common work plan.

"They told us it was great to be involved



Local Government Policy Branch staff directly involved with the project were, from left: David Shtern, Patricia Myatt, Doug Barnes and Curry Clifford.

right through the process. Usually they're told what they have to do but aren't told how it connects with everything else."

Curry credits staff from other branches for their ingenuity, too.

For instance, the cartographers: "They did a tremendous amount of work to make clear something that can be very complex. Our goal was to produce a map showing the 18 regional and 46 local wards so that any of the region's 660,000 residents would know, by looking at it, what ward they were in and what other areas were in the same ward.

"It was a challenge to answer those two questions in a map that had to fit in an 8 1/2 x 11 envelope," he added.

While the ministry's Ottawa field staff couldn't be at team meetings, their service was invaluable, says Doug Barnes, director of the Local Government Policy Branch. They gave front line support to Mr. Kirby, staffing displays, researching issues, attending public meetings, and keeping head office informed.

Shane Kennedy, Ottawa regional office manager, chaired a committee of municipal clerks to finalize ward boundaries. Its report, delivered to Minister Ed Philip last month, will help establish the final ward structure. Program assistant Joanne P'hiliben

helped produce the committee's report.

"Without the willing and active support of the field office staff, this project in this time frame would not have happened," says Doug. "They were critical."

When it came to working with the region, Curry's team took a different approach there, too.

"We took a deregulatory approach to developing the legislation. For example, the region wanted to have the ability to control the treatment of storm water. To do that, they proposed owning the treatment plants. So we said,

Continued on page 3

Flexibility key to team's approach

Continued from page 1

"The result you want is clean water in the river, but the way you've chosen to get this is to own the plant. Do you really have to own it to realize your interests? How can we get the same result, but have some flexibility? How about policy control of the plant instead?"

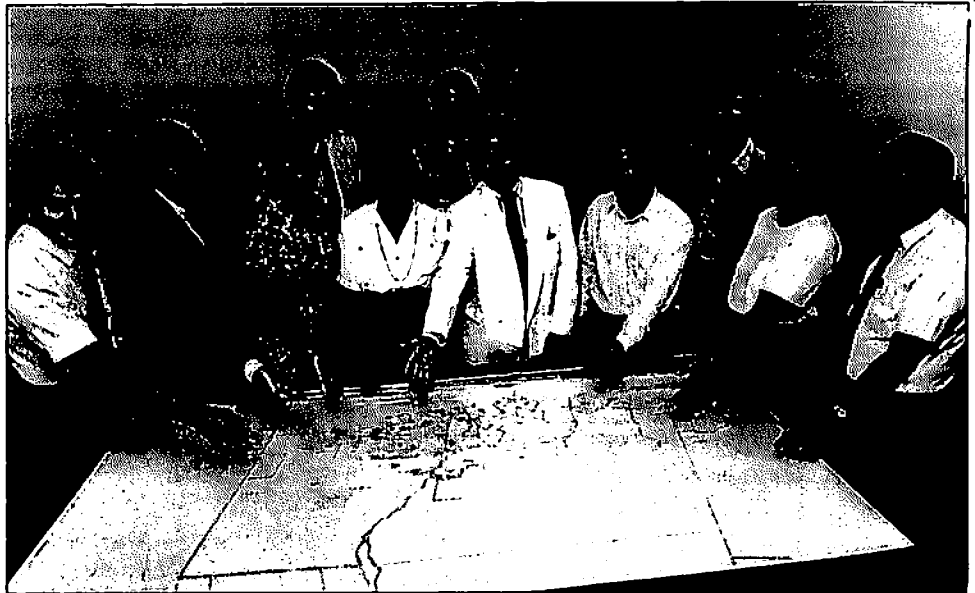
"It's an unconventional approach. Legislation can often be unclear on the outcomes expected, and instead is focussed on the details of how the service is to operate. It misses the forest for the trees."

Working partnerships with the region was also a new approach, Curry says.

"In the past we would have had our own staff do legal descriptions of the ward boundaries, but working with the region has meant savings for us. It shows we've developed a good working relationship," he says.

Patricia Myatt, policy adviser, has been working on the amalgamation of the three existing police forces in the region. This will expand the concept of partnerships in the region, by involving all the police forces and, at the provincial level, staff from the Ministry of the Solicitor General and Correctional Services, Cabinet Office, Treasury Board and Management Board Secretariat.

The legislation is expected to be passed in the next few months so that it's in place for the 1994 municipal elections. ♦



Gang's all here!

Contributors to the Ottawa-Carleton exercise were, from left: Ernie Marchesan, Scott Gray, Patricia Myatt, Curry Clifford, Leila Odiase, David Shlern, Carl Halen, Louis Nagy, Sean Brooks, Tom Wilson, Gaye McCurdy, Bill Robson. Missing from photo are: Barry Ditto, Bonnie Laing, Esther Comeau, Shane Kennedy, Joanne Philliben, Marie Rahman and Ron Ryner.

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- "In one rural community there is a high positive correlation between the number of storks observed in the spring and the number of babies born in the following winter. If health planners wish to determine the demand for maternity services, a model which uses the number of storks as a predictive indicator probably would suffice. If, however, health planners wish to lower the birthrate, the systematic extermination of storks will not work, since the causal factor for both storks and babies is something entirely different: the richness of spring crops. Rich crops caused the storks to come in the spring because there was plenty of food for them; the rich crops were a cause of optimism among the farmers and their wives, resulting in higher birthrates." (Anthony and Young, p.623)
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152. Anthony and Young, op. cit., p.600
153. Timothy Plumptre, Beyond the Bottom Line: Management in Government. Halifax: The Institute for Research on Public Policy, 1988, p.285
154. Peter Aucion, "The Accountability Paradox", in The Well Performing Government Organization, edited by James C. McDavid and Brian Marson, The Institute of Public Administration of Canada, Victoria, 1991, p.25

155. Topical, July 9, 1993
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176. Globe and Mail, June 23, 1993, "Newfoundland's underwater desert", p.A1; "B.C. chooses green over copper", p.B1
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182. Jeff S. Luke, "Managing Interconnectedness: The New Challenge For Public Administration", in Mary Timney Baley and Richard T. Mayer, eds., Public Management in an Interconnected World. New York: Greenwood Press, 1992. p.13
183. Stivers, op. cit., p.61
184. Perez, op. cit., p.274
185. As Plumptre argues: "... the degree and type of control must be appropriate to a professional organization, otherwise creative ideas will be stifled and good people will leave." See Plumptre, Beyond the Bottom Line: Management in Government, p.318

186. From the public choice perspective, the best accountability device is the market. The theory is that people will "vote with their feet" and abandon a government service if they find it no longer relevant. The theory does have some relevance, but also some limitations: not all people are mobile or have the resources to become mobile, and, as we saw earlier, government should not remove itself from accountability for certain core governance functions (i.e. policy management).
187. Here Beetham takes up the argument. He suggests that Weber addressed this issue in formulating the concept of bureaucracy when he argued for countervailing power, "whether in the competition between different bureaucratic organizations, or in the separate power base of the political leader in the popular legitimacy of the political process". See David Beetham, Bureaucracy. Minneapolis: University of Minnesota Press, 1987, p.70.
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189. Etheredge and Short, op. cit., p.54
190. Argyris, 1977, op. cit., p.118
191. Osborne and Gaebler, op. cit., p.30. They provide an explanation of thirty-six tools at page 332.
192. Rhoads, op. cit., p.69
193. Ibid., p.216
194. Management Development Program of the Commonwealth Secretariat, "The New Public Management", Management, Spring 1993: 30
195. Osborne and Gaebler, op. cit., p.344
196. For good ideas on this balance see: Jack W. Hopkins' "The Eradication of Smallpox:Organizational Learning and Innovation in International Health Administration", p.328

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