

IN THE NAME OF GOD

IMAGES OF ORGANIZATION

CHAPTER 4

Learning & Self-Organization: Organization As Brains

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Key Words:

- Self-Organization
- Learning Organization
- Holographic Organization
- Learning Loops
- Cybernetics
- Information Systems
- I.T.

We are going to discuss:

- Introduction
- Organization as Learning Brains
- Create Learning Organizations
 - Cybernetics, Learn to Learn, OP Norms
 - Limits, Design
- Organizations as Holographic Brains
 - Principles
 - Strength & Limitations

Introduction

What if we think about Organizations as brain?



An excellent phenomenon!

Images Of The Brain

- Brain As Information System

- Brain As Holographic System:

A hologram's part can work as whole

Images Of The Brain

- The PARADOX of being holographic and specialized:

“Parallel processing”

“All over the place” character

Brain is specialized too!

Images Of The Brain

- Specialization & distributed functions?
- Coordinated intelligence has no explicit design?
- Redundancy provides efficiency?

Genghis (a mobile robot "mobot" with no brain)

Images Of The Brain

View Organizations By 3 Interconnected Ways:

- As information processing brain
- As complex learning system
- As holographic system

Organization As Information Processing Brain

Organizations : Decision Making Systems,
Information Systems

- I.T. (virtual organizations)
- J.I.T.
- E-Commerce
- Electronics

Creating Learning Organizations

Cybernetics, Learning and Learning To Learn

- How can one design systems capable of learning in a brainlike way?
- **Cybernetics: An interdisciplinary science focusing on the study of information , communication , control**

Negative feedback produces *self-regulation*

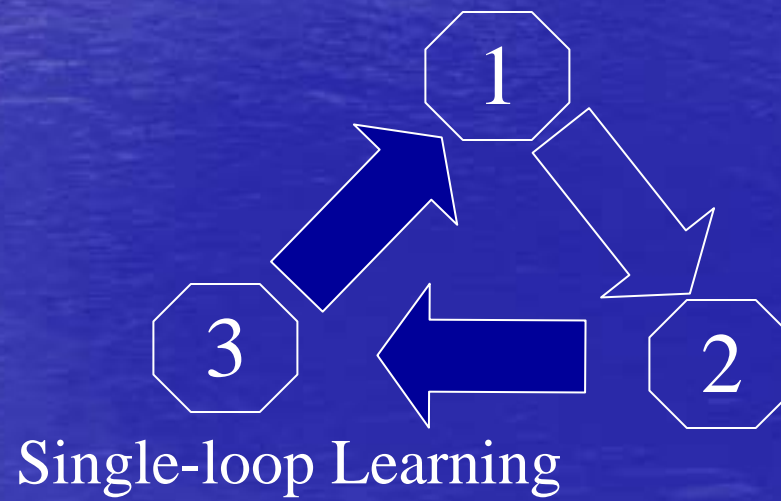
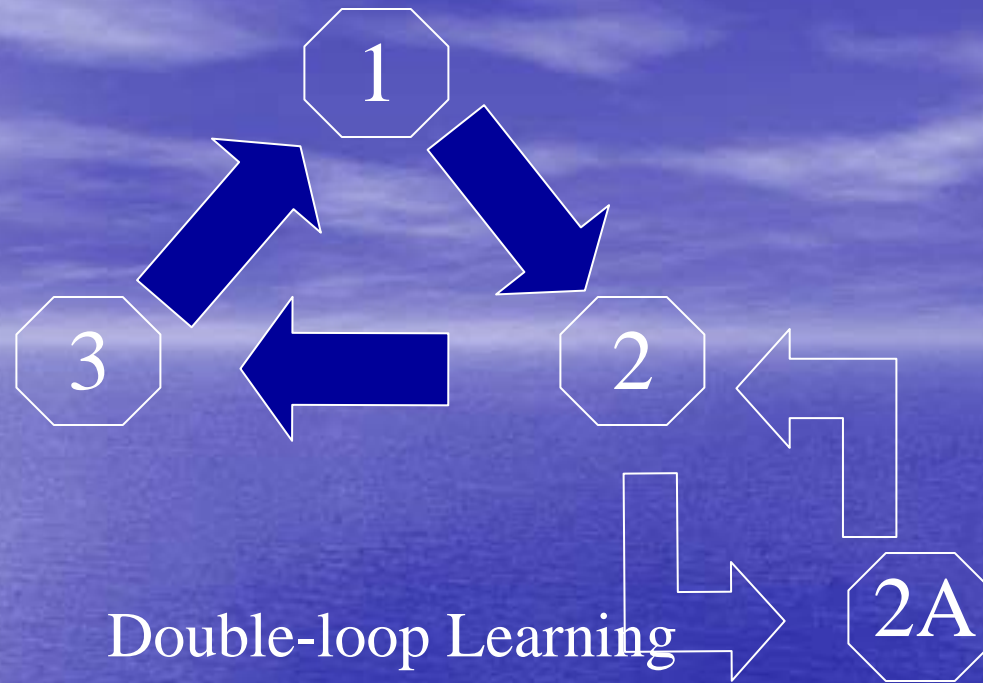
Creating Learning Organizations

Early Cybernetics Theory

4 Capabilities

Life Cycle

Modern Cybernetics Theory



Creating Learning Organizations

Can Organizations Learn To Learn

Important Questions for Modern Organization :

- Are they able to learn in an ongoing way?
- Is this single loop learning or double loop?

Creating Learning Organizations

Pioneers: C. Argyris and D. Schon

In U.S.: "Learning Organization" P. Senge

In Europe: "action learning" R. Revan

Modern cybernetics

Creating Learning Organizations

Barriers to double-loop learning

1-Budgets and other management controls

2-Bureaucratization

3-Process of bureaucratic accountability and other systems for rewarding or punishing employees

Creating Learning Organizations

Guide lines for creating “learning organizations”

1-Scanning and anticipating environmental change(Apple computers,CNN,Canon)

Creating Learning Organizations

Guide lines for creating “learning organizations”

2-Questioning, challenging (Double-loop learning guides us):

Understand norms by questions:

Creating Learning Organizations

Guide lines for creating “learning organizations”

3-Encouraging “emergent” organization:

Case : An interview with Japanese bank by
W. Ouchi

a Japanese manager and his American
vice presidents

Creating Learning Organizations

Guide lines for creating “learning organizations”

4-Fostering an ability to challenge norms

5-The importance of limits

6-Evolving design for double loop learning

Organizations as Holographic Brains

Promoting self-organization through principles of holographic design:

1-Build the “whole” into the “part”

2-The importance of redundancy

3-Requisite variety

4-Minimum specs

5-Learn to learn

Strength And Limitations

Strength:

- 1-The metaphor gives clear guidelines for creating learning organizations
- 2-We learn how I.T. can support intelligence evolution

Strength And Limitations

Strength:

3-We gain a new theory of management based on principles of self-organization

4-We recognize the importance of dealing with paradox

Strength And Limitations

Limitations

- 1-There may be conflict between the requirements of organizational learning and realities of power and control
- 2-learning for the sake of learning can become just another ideology

GOOD LUCK

