

**Change**

**Concepts**

# Change Concepts

Presented by Dr. David Gould

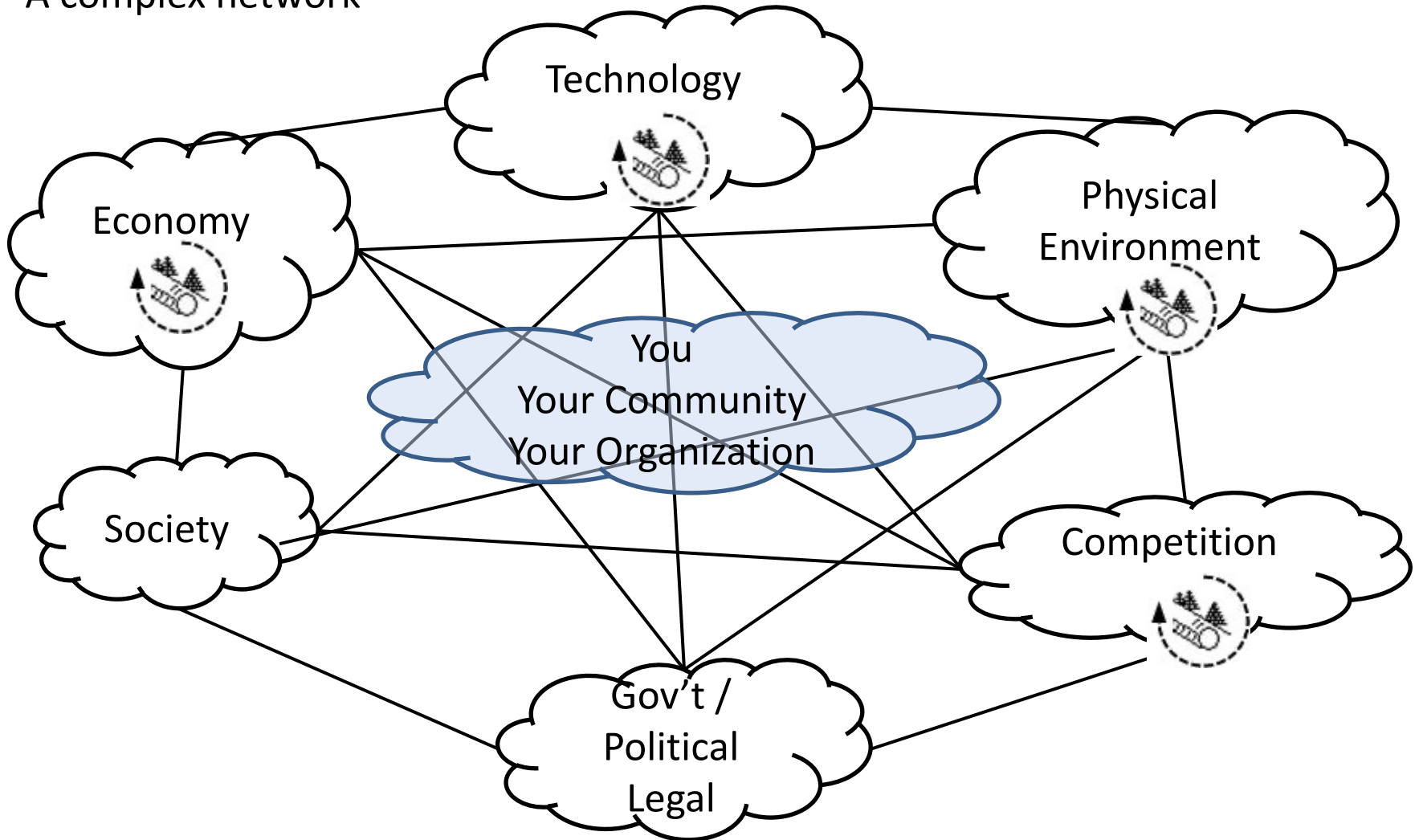
# Contents

- Change
- Activities
- Close

**Change**

# The Environment (for Social Systems)

A complex network



# Pace of Change

Some Characteristics of the Future

*Speed* – the rate of change will accelerate

*Complexity* – continuously increasing

*Risk* – new and higher risks

*Change* – radical changes will force faster adaptation

*Surprise* – will become a daily feature of life

Source: Dr. James Canton

Plus,  
*increasing interdependency*  
and *interaction*

We live in exponential times!

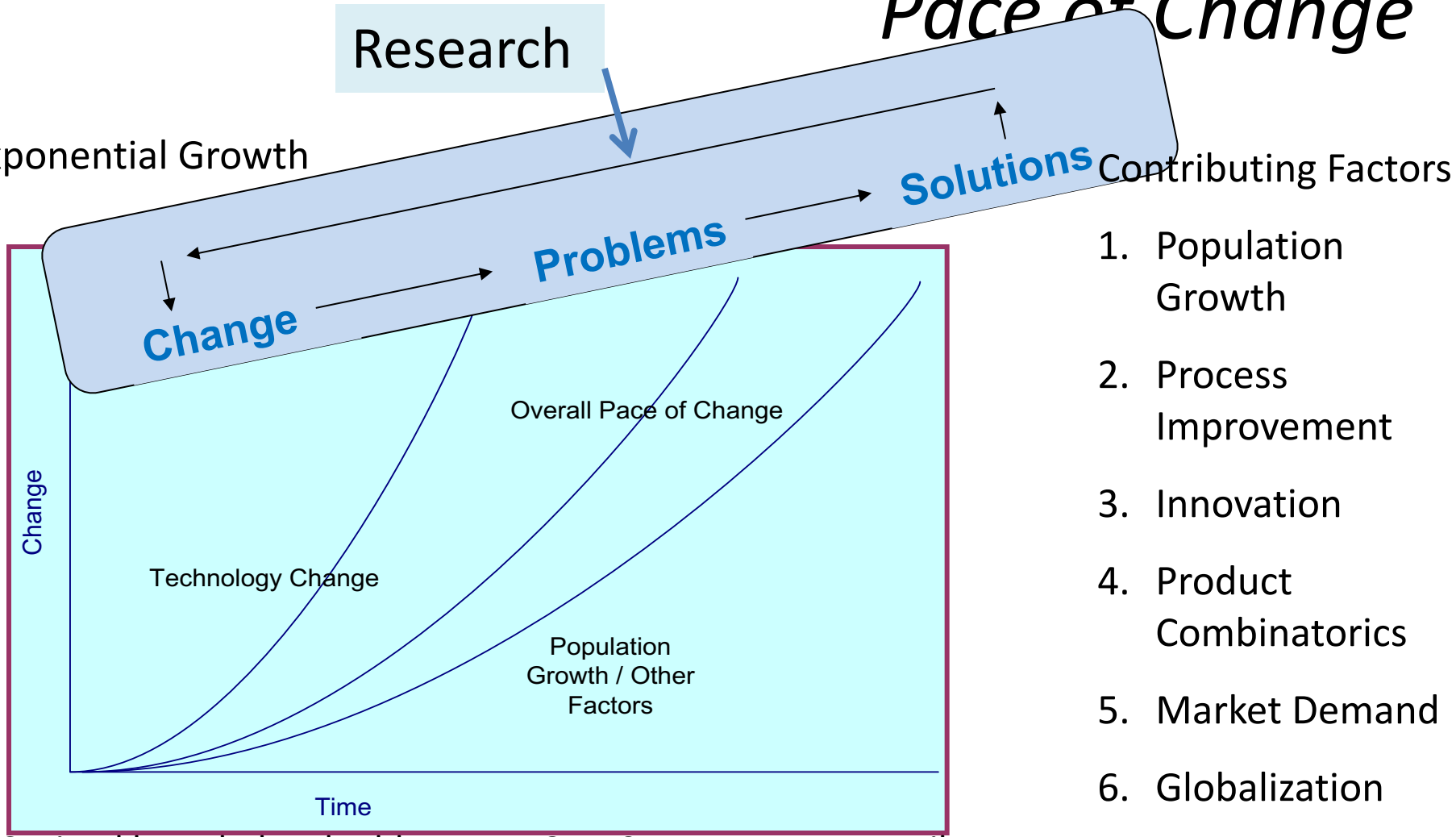
Exponential Curve



# Pace of Change

Research

Exponential Growth



Contributing Factors

1. Population Growth
2. Process Improvement
3. Innovation
4. Product Combinatorics
5. Market Demand
6. Globalization
7. Cost Reductions

Societal knowledge doubles every 8 – 10 years: Ray Kurzweil

Processing speed doubles every 12 – 18 months: Moore's Law

# Change

- As systems include networks of agents and relationships among agents (interactions), which process material, information, and energy (MIE) and as change or innovation is essential in social system ...
  - Change the structure (agents, meta-agents, or networks), change the processes, change the resources and we change the system.
  - From the SEI CMMI, performance is a function of people (agents), processes, and technologies.
    - $P=f(\text{people, processes, technology})$

# Change

- A simple example. A set of college students painting a house with 2" paint brushes.
  - Agents are of course the students.
  - Technologies are the paint brushes
  - Processes may be primitive or ill defined
- If we want to improve the performance of this system, we could
  - Hire experienced agents
  - Provide better technologies
  - Provide training
  - Define the house painting process
  - And so on



# Change

- The **Why** of change
  - Forces and sources of change
- The **What** of change
  - First and second order change, scale, timing
- The **How** of change
  - Adaptive / generative, proactive / reactive, planned / unplanned
- The **Target** of change
  - Outcomes

# Change

As your organization begins a change process, management needs to understand **why** they are changing, **what** they are changing (degree of change), the approach (**how**) to adopt, and what the **outcome** will be.

# Change Management

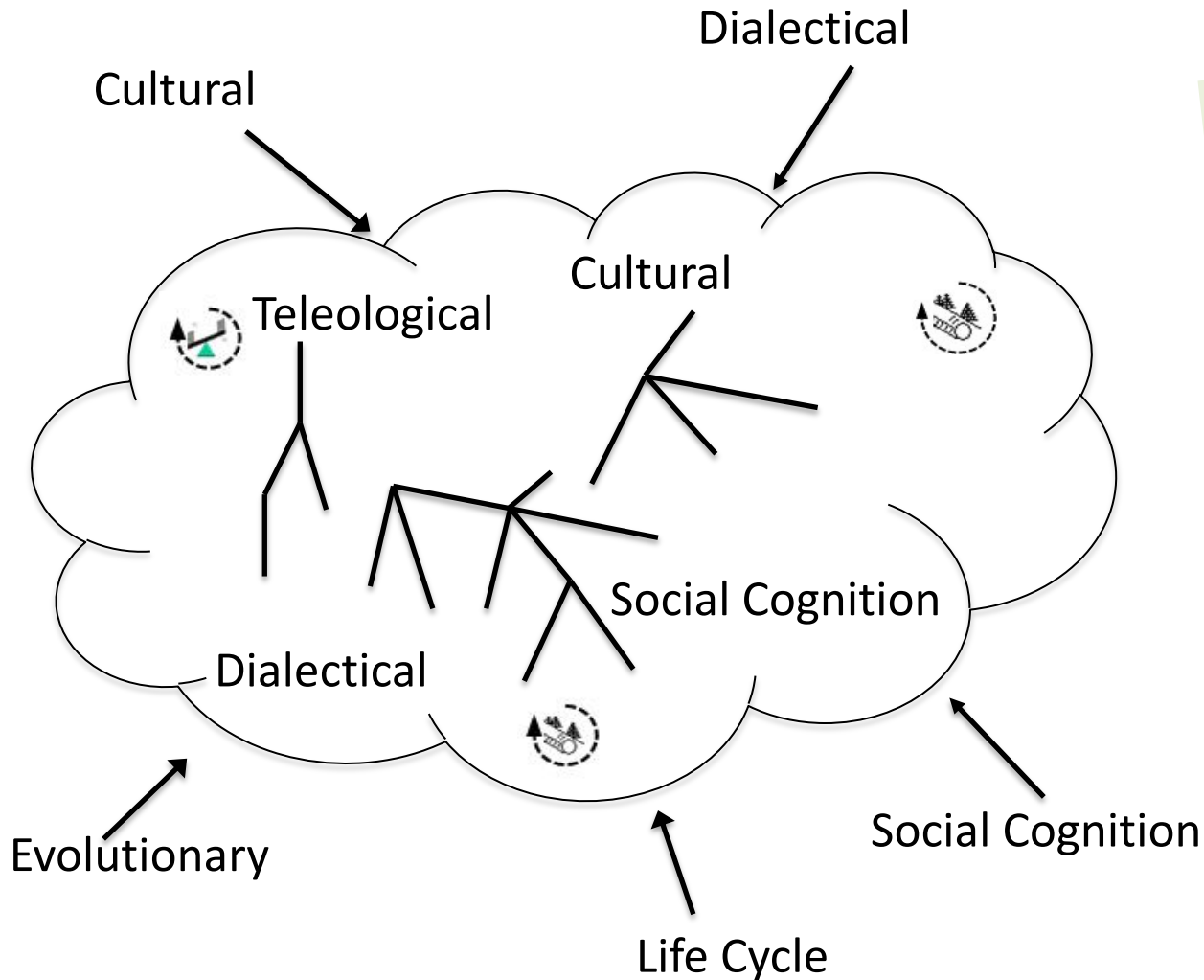
## Key Theories of Change – A Taxonomy

1. Evolutionary
2. Teleological
3. Life Cycle
4. Dialectical
5. Social Cognition
6. Cultural

Source: Adrianna Kezar, “Understanding and Facilitating Organizational Change in the 21st Century”

# Complex Adaptive (Social) Systems

## Behavior Patterns Over Time and Change Factors



- Equilibrium
- Periodic
- Random / Chaotic
- Complex

# Evolutionary Change

- Change is a response to external circumstances, situational variables, and the environment
  - Social evolutionary models
  - Biological models
- Change is mostly unplanned – instead, it is an adaptive or selection-based process
- Examples
  - Strategic-choice
  - Population-ecology
  - Abiotic evolution

Sources: Adrianna Kezar, “Understanding and Facilitating Organizational Change in the 21st Century”

Eric Beinhocker, “The Origin of Wealth”

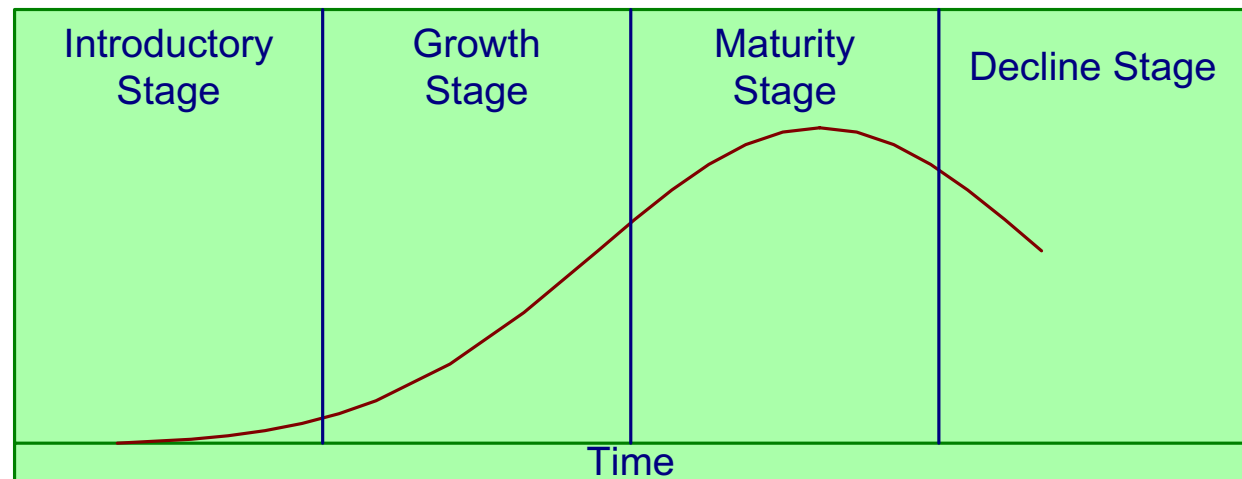
# Teleological Change

- Teleological or planned change occurs because organizations are assumed to be purposeful and adaptive
- The process is rational with managers instrumental in the process
- Models
  - Strategic planning
  - Organizational Development
  - Adaptive learning
  - Total Quality Management
  - Business Process Reengineering
  - Problem Solving
  - Kotter's 8 Step Process
  - Action Research
  - SEI CMM (Capability Maturity Model)
  - SEI PCMM (People Capability Maturity Model)

Source: Adrianna Kezar, "Understanding and Facilitating Organizational Change in the 21st Century"

# Life Cycle Change

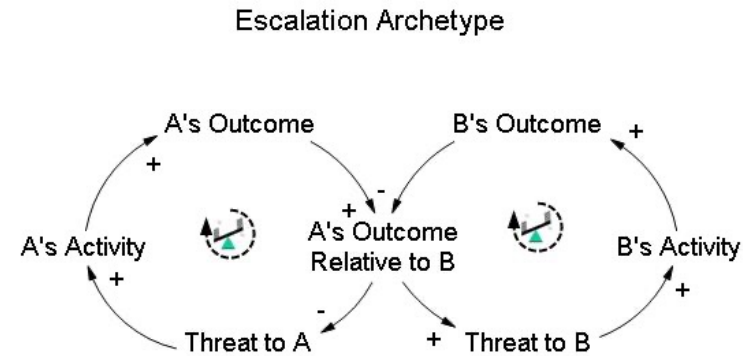
- Life cycle change is focused on stages of growth, organizational maturity, and organizational decline.



Source: Adrianna Kezar, “Understanding and Facilitating Organizational Change in the 21st Century”

# Dialectical Change

- Dialectical change or political change is change that is the result of clashing ideologies or belief systems
- Conflict is seen as an inherent attribute of human interaction
- Change processes are considered to be predominately bargaining, consciousness-raising, persuasion, influence, and power





# Social Cognition Change

- This is change tied to learning and mental processes such as sense making and mental models
- Change occurs because individuals see a need to grow, learn, and change their behavior

# Cultural Change

- Change occurs naturally as a response to alternations in the human environment; cultures are always changing
- The change process tends to be long-term and slow

The Why of change

# Forces and Sources of Change

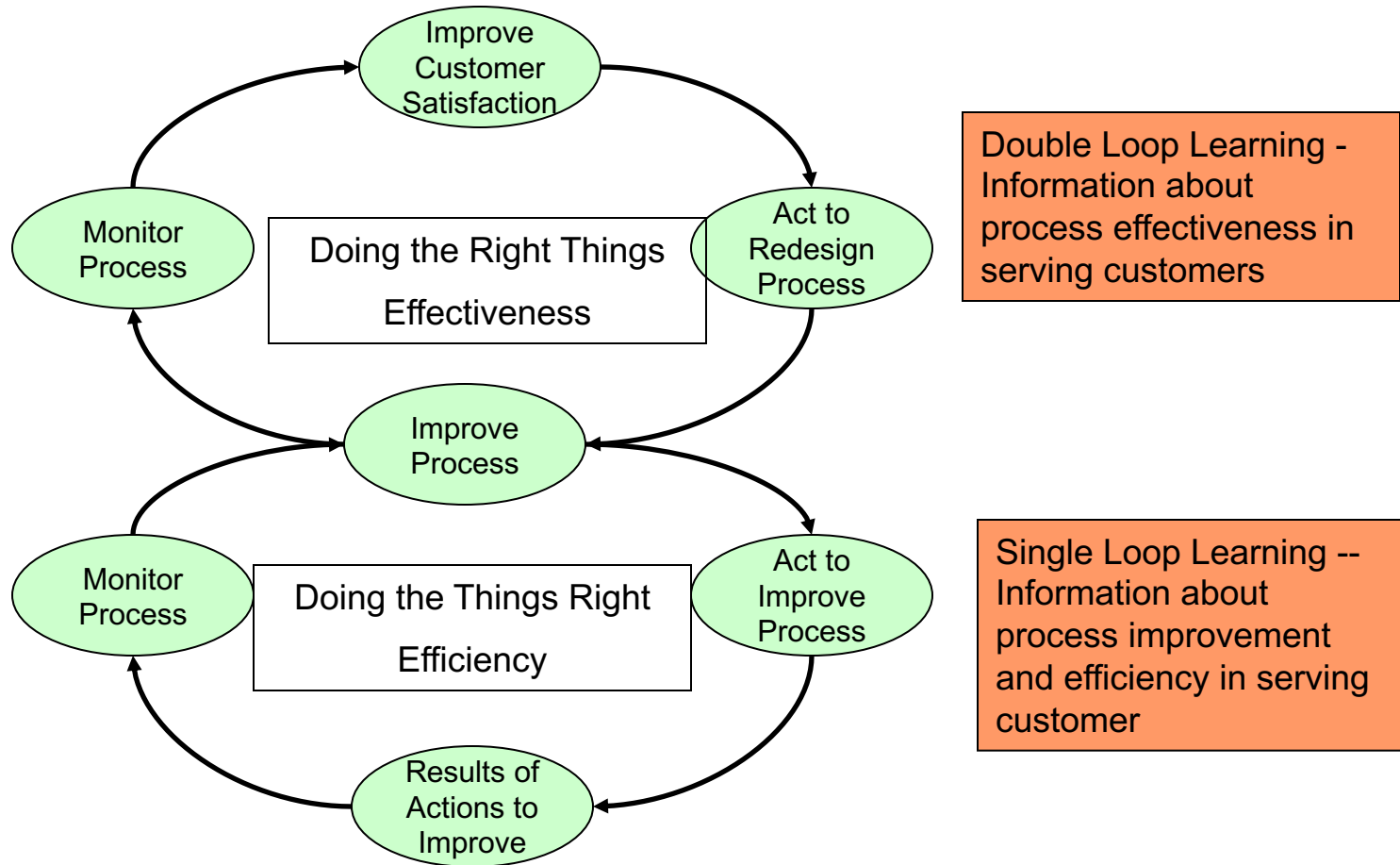
- External environment
  - Remote environment
  - Competitive environment
- Internal environment
  - Culture
  - Resources
  - Leader and employee behaviors / objectives
  - Organizational learning / adaptation

**The What of change**

# Degree of Change

- First Order Change
  - Involve minor adjustments / improvements, but does not change the organization's core
  - Characterized by evolutionary change, a linear process, developmental efforts, single loop learning
  - Organization development (OD)
- Second Order Change
  - Transformational change, core change, underlying values, mission , culture, structure
  - Irreversible change
  - Associated with a crisis
  - Double loop learning

# Single / Double Loop Learning



# Types of Change

- Developmental change
- Transitional change
  - (unfreeze, change, freeze)
- Transformational change
  - (near death experience)

Some theorists refer to developmental and transitional change (listed here) as first order change and transformational change as second order change. See Kezar



# Timing of Change

- Revolutionary change
  - Departs significantly from the existing organization
  - Occurs suddenly, with drastic changes within the mission, culture, and structure
  - Associated with second order change
- Evolutionary change
  - Less likely to be adopted as it may be seen as very long-term

**The How of Change**

# Planned / Unplanned

- Planned change
  - Changes deliberately made or shaped by the organizational members
- Unplanned change
  - Evolutionary and accidental change are not considered to be planned change

**Activities**

# Strategic Planning made Simple

1. Where are you?
2. Where do you want to go?
3. How are you going to get there?
4. Who is going to do what and when?

# Activity 1

- Using the system environment framework (economy, technology, government, society, competition and the physical environment), list some:
  - Key events
  - Trends
  - Forecasts

# Activity 2

- What are examples in your organization of:
  - Suppliers / Inputs / Detectors
  - Effectors / Outputs / Customers
  - Resources / PTs / STs / OPs
  - Agents / Meta-agents (roles)
    - Leadership
    - Staff
    - Change agents / Gatekeepers
  - Rules
  - Relationships
  - Interdependencies
  - Processes
  - Resilience
  - Thresholds
  - Feedback loops

# Activity 3: Resilience

- Let's explore resilience in more detail—on a 1 – 5 scale with 1 being high and 5 being low:
  - How **Robust** is your organization?
  - Do **Redundancies** exist in critical functions, programs, ...?
  - How **Resourceful** is your organization?
  - How capable is your organization to **Respond** to threats? To opportunities?
  - How capable is your organization to **Recover** from disasters?



# Activity 4

- Summarize where you are
- Summarize where you want to go

# Activity 5

- Given the outcome of activities 1, 2, 3, and 4 what change models might your organization embrace over the next 3-5 years?

# Activity 6

How might your organization be quantified?

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