# Complexity Paradoxes in Management

**Alexander Solodkin** 

#### Alexander Solodkin

- Over 30 years of experience in Operations Management, including:
  - 11 years in Canada working for:
    - Hudson's Bay Company (retail) the oldest retail chain in the world
    - Ontario Government
    - Husky Energy (oil & gas) one of the top 5 oil & gas companies in Canada
- Professional Certifications:
  - Certified Supply Chain Professional (ASCM), USA
  - Certified Six Sigma Black Belt (ASQ), USA
  - Professional Manager (Canadian Institute of Management), Canada
  - Chartered Member, Institute of Logistics and Transport (CILT), UK
- Professional Associations:
  - The Association for Supply Chain Management (ASCM), USA
  - American Society for Quality, Senior Member (ASQ), USA
  - The Chartered Institute of Logistics and Transport (CILT), UK
- Professional Interests:
  - Operations Management, Theory of Complexity, System Dynamics, Cybernetics, and TRIZ

#### The Process Spectrum Examples

#### **ROUTINE PROCEDURES**

Pre-defined Processes Little or no worker discretion Highly controlled Can be easily automated **UNPREDICTABLE PRACTICES** 

Each case is different

Involves human judgement and discretion

Involves knowledge workers

**Goal driven** 

CASE MANAGEMENT

COMMAND & CONTROL		SENSE & RESPOND		
Employee Admin		Claim Processing	Audits Lega	al
Invoicing	Complaint Management	Investigation Management		
Purchasing New Customer		On-boarding		
Customer Service Provisioning		Help Desk	Patient / N	ledical

Source: McCauley, Dermot. (2011), ACM and Business Agility for the Microsoft-aligned Organization, Taming the Unpredictable, Lighthouse Point FL: Future Strategies Inc. p. 67

### Concrete vs Abstract Structured vs Unstructured



## **Concrete vs Abstract**

Concrete (Uncodified, Undiffused) <-> Abstract (Codified, Diffused)

- Control vs Lead
  - Lead when the overall eco-system is ready for change as the utility of the older idea is coming to an end and it is moving to a decline
- The periodic rapid diffusion of the idea requires high levels of abstraction and codification to allow diffusion of the idea

## **Exactness (Precision) vs Uncertainty**

Our brains are hardwired to see uncertainty as a risk or threat

- Knowing or finding the "right" answer is futile and stressful in Complex / Chaotic contexts
- Learn to acknowledge and embrace the discomfort of not knowing
- Leaders should shift from a "know it all" to "learn it all" mindset (Satya Nadella, Microsoft)
- Speed is more important than precision (Dixie cup, 1918 Spanish flu; "dark kitchens" and QR codes, COVID-19)

## **Exactness (Precision) vs Uncertainty**

- Managers have to use existing organizational capabilities and develop new ones in order to excel in the long-term
- Requires different thinking styles and organizational structures
- Strategic Foresight Tool: Scenario planning in Business (Pierre Wack, Shell)

## **Data Science vs Heuristic and Intuition**

- Data-driven decision-making can be counterproductive under extreme uncertainty
  - It is highly challenging and sometimes impossible to collect reliable data
  - 12 publishers were unable to see the potential of "Harry Potter and the Philosopher Stone" before Bloomsbury Publishing accepted to publish an initial print of 500 copies. The book was so innovative that there was by definition no prior data available to accurately access its potential.
- Managers who rely on their instincts together with some simple heuristics (e.g. tallying) make decisions that just as accurate as based on data analysis but they undertake them much more quickly.
- Effectiveness of intuition compared to analysis is contingent upon domain knowledge.

## **Objective vs Subjective**

Time management: how to tame stress, boost energy, improve health and accomplish more?

- View objective time through the lens of subjectivity
  - We can let go of temporal schemata or "time rules" fixed views of when things should occur or how long they should last
- Focusing vs Defocusing: Focus on work as a series of meaningful events rather than a fixed, hourly schedule
  - prioritizes the work over the schedule and emphasizes effectiveness over efficiency
  - increases perceptions of control over time
  - greater enjoyment of the task
  - experiencing the satisfying feeling of closure
  - "Flow" experience, getting fully absorbed in work without regard for time
  - benefits of occasional mind-wandering
- Meaningful vs Economical value of a task. Search for meaning over efficiency in every work task by asking: Where does this task fit in relative to my goals and values?
  - the more meaningful activity creates energy through the revitalizing experience of meaningful work
  - neglecting meaning and focusing on the economic value of time emphasises time as a commodity and perceives it as scarce

## **Explicit vs Tacit Knowledge**

- Technology vs Culture
  - Technology "the application of scientific knowledge for practical purposes" (Oxford dictionary)
    - Manifested as Explicit / Factual knowledge
  - Culture "the collective programming of the mind which distinguishes the members of one category of people from another" (Hofstede, 1984)
    - Manifested as Tacit / Implicit knowledge
- Social interaction vs Formal knowledge transfer
  - During social interaction with colleagues and clients employees learn as much as during formal knowledge transfer activities (training, studying formal documents etc.)

## Western vs Eastern View of the Universe

- Order
  - West: there's order in the universe (Christianity)
  - East: there is no inherent order (Taoism)
- Nature
  - West: Man vs Nature exploitative view
  - East: mutual accommodation of man and nature
- Individualistic (West) vs Collectivistic (East) Culture
  - Cultural dimensions (Hofstede, 1984)
- Using force
  - American concept of using force as a coercive tool to reach desired goals
  - Chinese concept of wu wei "not to force anything"
    - always act in accordance with the pattern of things as they exist
- Problem-solving
  - West: focusing on the macro dimension of problems without thinking about the details
  - East: importance of thinking about the details of a problem

Thank you!

#### **Questions?**

#### Feel free to contact me at alansol125@gmail.com or via LinkedIn