



Communication Skills

A managerial perspective

Session 10

Nariman Dorafshan, 2024

Part 0.1

Session 09 Review

Introduction

Part 1 Personal Perspective

Statistical
Thinking

Data
Visualization

The Art of
Questioning

Part 2 Group Perspective

Part 3 Organizational Perspective

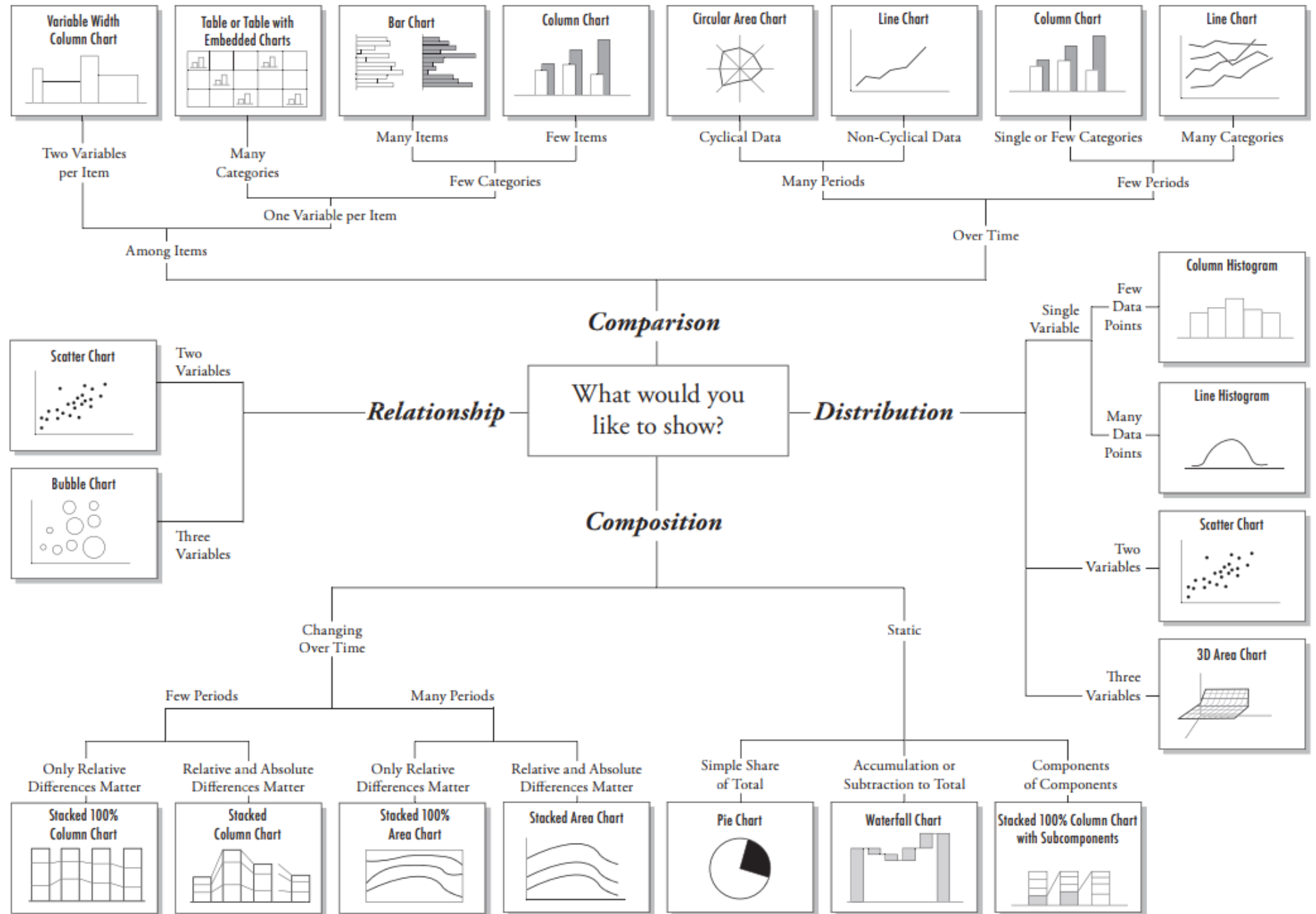
Part 4 Cultural Perspective

Chart Suggestion

A Thought-Starter

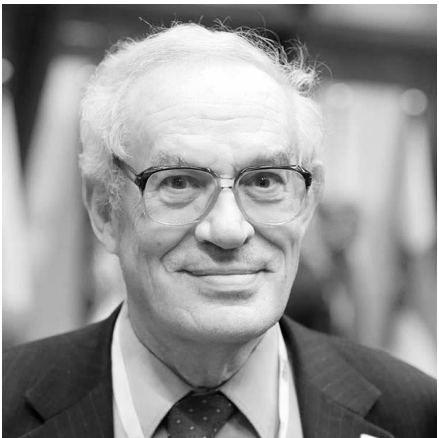
www.ExtremePresentation.com

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Goodhart's Law

Any **observed statistical regularity** will **tend to collapse** once **pressure** is placed upon it for **control purposes**.



Charles Goodhart
(1934–)

GOODHART'S LAW

WHEN A MEASURE BECOMES A TARGET,
IT CEASES TO BE A GOOD MEASURE

IF YOU
MEASURE
PEOPLE ON...

NUMBER OF
NAILS MADE

WEIGHT OF
NAILS MADE

THEN YOU
MIGHT GET

1000'S OF
TINY NAILS

A FEW GIANT,
HEAVY NAILS



sketchplanations

US Presidential Election 2020

Results mapped at county level showing the candidate with the largest vote share in each area

Preliminary results*

Biden

78,780,121 votes (50.9%)

306 electoral votes

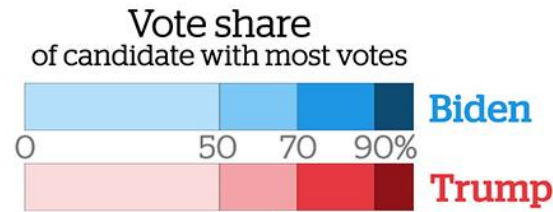
Trump

73,163,140 votes (47.3%)

232 electoral votes

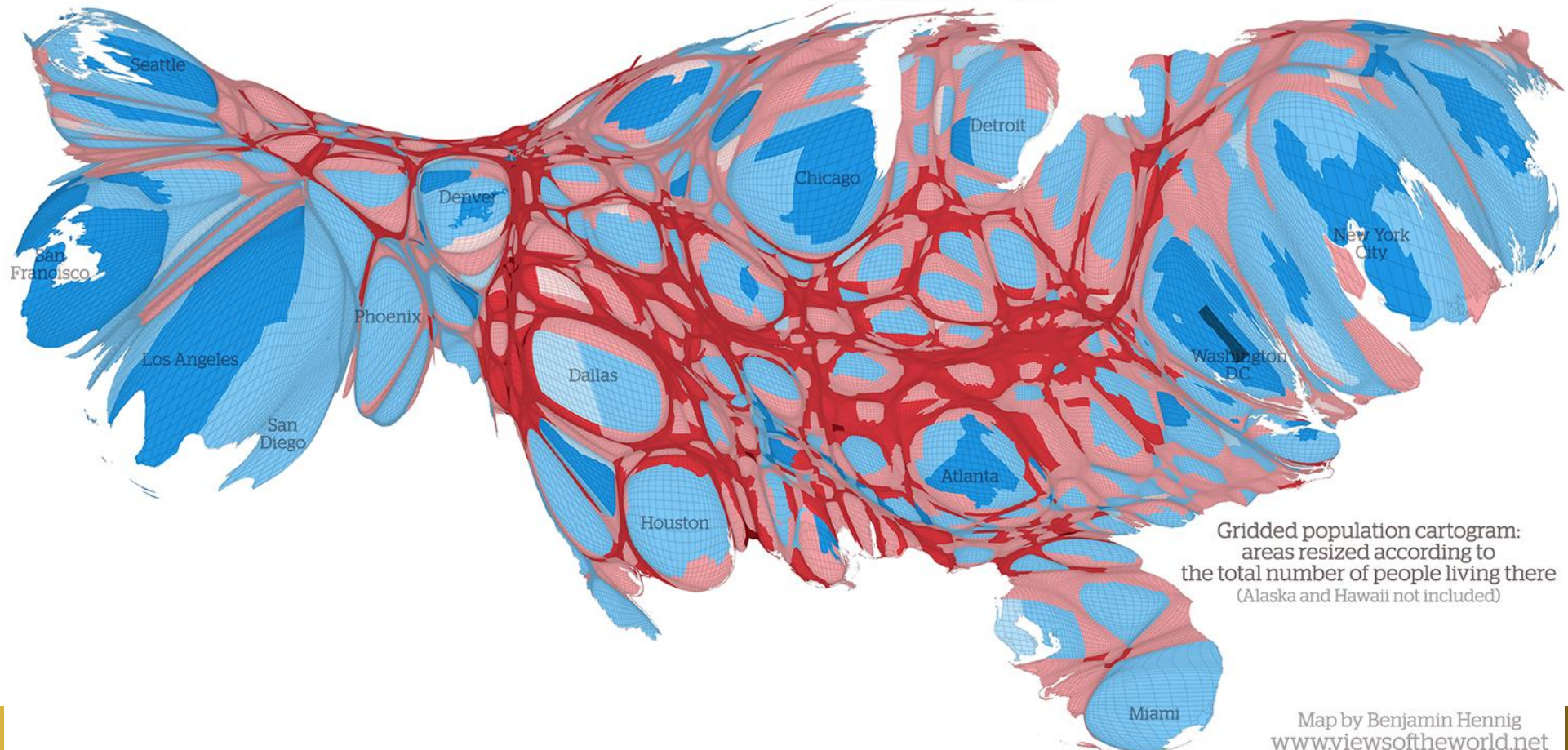
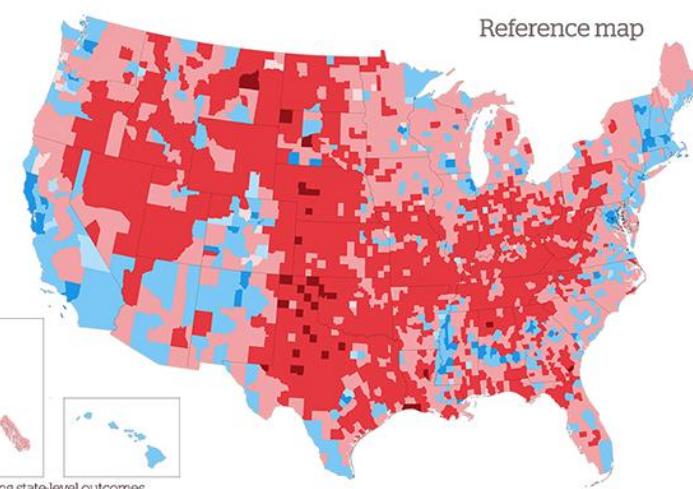
* not confirmed final result, last updated 16. Nov 2020

Source: <https://github.com/favstats/USElection2020-NYT-Results/>



Alaska and Hawaii showing state-level outcomes

Reference map



Gridded population cartogram:
areas resized according to
the total number of people living there
(Alaska and Hawaii not included)



Part 3.2

Compass:

An Assessment Tool for Improving Project Team Communication

IR105-2, version 2.1 (2011)



Construction Industry Institute®

Effective Communication & Project Success

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Construction Industry Institute Research Team

- Research Team 105 (RT105) was formed in the 1990s
- Their research was published in 1996, summarizing team's effort at developing project team communication effectiveness compass
- In 2011, CII Knowledge Management Committee revised and updated it, resulted in the current version 2.1

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Primary Research Objectives

- Identify relevant communications and success variables
- Evaluate the relationship between communications effectiveness and project success
- Develop a numerical communications effectiveness score that can be calculated for any project during the execution phases of the project
- Identify specific areas requiring communications improvement and provide insight for corrective measures
- Establish a baseline methodology and database for follow-up monitoring and assessment

A Quick Note about Measurement

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Reminder: Indicator Types

- Monetary vs Non-Monetary
- Internal vs. External
- Performance vs. Operational
- Leading vs. Lagging
- ...

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Another classification of indicators

1. Natural Indicators (Direct Measures)
2. Artificial Indicators (Indirect Measures)
3. Stand-in Indicators

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Natural Indicators

- When we can measure **directly** and **objectively** what it is exactly

- E.g.

Profit, Consumed Water, Deforested Land

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Artificial Indicators

- When we **can't** measure something **directly**, we look for an **indirect** implication
- Its **absolute value** **doesn't mean anything!**
 - It is its **trend** that is important, so we need **continued** measurement of it.
- E.g.
 - Customer Satisfaction (Using Surveys and Questionnaires)
 - A Research Value (Article Citations)
 - Economic Health: Growth or Recession (GDP)

Stand-in Indicators

- When we can't measure something **directly**, and we can't estimate an indirect implication
- **X indicates Y**
- E.g.
 - Body Mass Index in relation to Health
 - A Country's "GDP per Capita" in relation to its Well-being
 - Customer Loyalty (When we don't have customer satisfaction, we look into repeat customers)
 - Employee Loyalty (When we don't have employee satisfaction, we look into staff turnover)

Example

- For an indicator for “Industrialization of a Country”

We can look into its “Electricity Usage in Industries”

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Question (1/2)

- What type of indicator is “Life Expectancy”

- We need first to ask yourself:

“What did you want to measure that led you to this indicator?”

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Question (2/2)

- What type of indicator is “Life Expectancy” in a country?
- We need first to ask yourself:
 - “What did you want to measure that led you to this indicator?”
 - Was it Average of People’s Age?
 - Was it the Quality of Life in a country?

Question:

How do we measure the effectiveness of a “change initiative”?

What type of indicator it needs?

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What makes a good “measure”?

- Spend a few moments and think of **what you currently measure for performance**

Do not Distribute

What makes a good “measure”?

- Spend a few moments and think of **what you currently measure for performance**

Tells you something

Tells you something
you didn't know

Tells you something
that might happen

Tells you something
that will happen
unless you act

Good Measures

allow you to see something you didn't know
that you can do something about

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Good Measures...

1. Don't violate the Basic Rules of Data and Charts
2. Help you “see” a tradeoff that others don't see
3. Help you “see” (gain insight) earlier that others are yet to see
4. Those insights lead to actions (that matter)
 - If they don't lead to actions, they are just for vanity

Experimentation & Forming your Hypothesis

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Hypothesis-Driven Development

- We believe that *<Action>*
- Will result in *<Result>*
- If successful, we might expect to see:
 - *<Impact 1>*
 - *<Impact 2>*
 - ...

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Compass:

An Assessment Tool for
Improving Project Team Communication

Do not Distribute

Sample

Performance Criteria and Communication Effectiveness Score

Performance Criteria							
Accuracy	Timeliness	Completeness	Understanding	Barriers	Procedures	Performance	
						10	Scores
	x		x	x		9	
					x	8	
						7	
						6	
x		x				5	
						4	
						3	
						2	
						1	
						0	
5	9	5	9	9	8	Score	Score 75
2.1	1.4	1.2	1.6	1.8	1.9	Weight	
10.5	12.6	6.0	14.4	16.2	15.2	Index	

Six Categories of Critical Communication Issues

Accuracy

Timeliness

Completeness

Understanding

Barriers

Procedures

Six Categories of Critical Communication Issues

Accuracy

the **accuracy of information** received as indicated by
the frequency of conflicting instructions, poor communication, and a lack of
coordination

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Six Categories of Critical Communication Issues

Timeliness

the **timeliness** of information received,
including design and schedule changes

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Six Categories of Critical Communication Issues

Completeness

the amount of **relevant** information received

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Six Categories of Critical Communication Issues

Understanding

an understanding of **information expectations**

with supervisors and other groups

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Six Categories of Critical Communication Issues

Barriers

the presence of interpersonal, accessibility related, logistical,
or other types of barriers that
interfere with communications with supervisors or other groups

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Six Categories of Critical Communication Issues

Procedures

the existence, use, and effectiveness of

formally defined procedures

outlining scope, methods, or other project concerns.

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Score Reports

Communications Effectiveness Score

Overall	68.83		
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By Stakeholder

	Project Management	Engineering	Construction
Com. Eff. Score	61.70	65.90	78.90

By Category

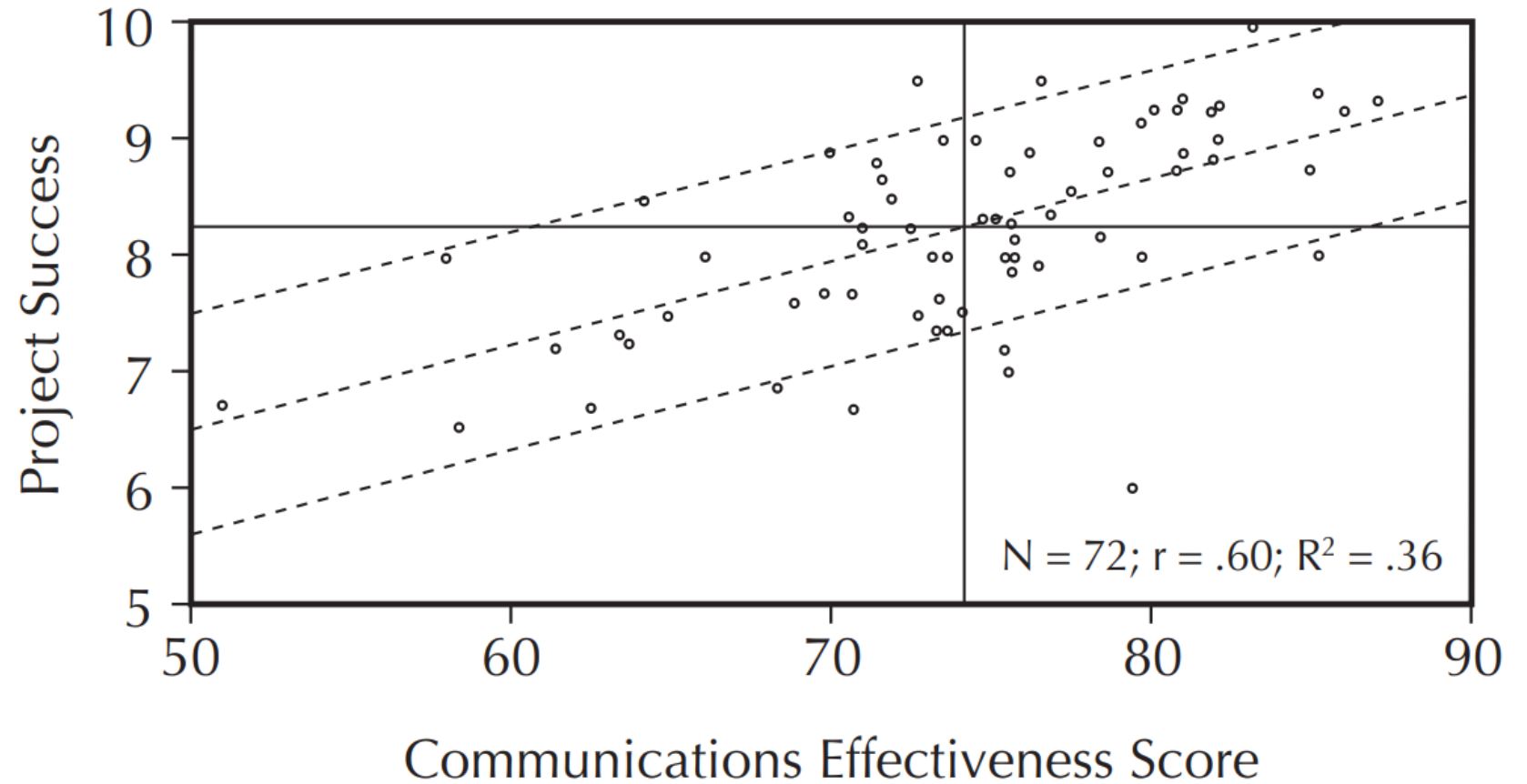
Accuracy	6		
Timeliness	7		
Completeness	7		
Understanding	7		
Barriers	8		
Procedures	7		

By Role

	Project Management	Engineering	Construction
Accuracy	5	7	7
Timeliness	7	5	8
Completeness	8	6	6
Understanding	6	7	9
Barriers	6	8	9
Procedures	6	6	8

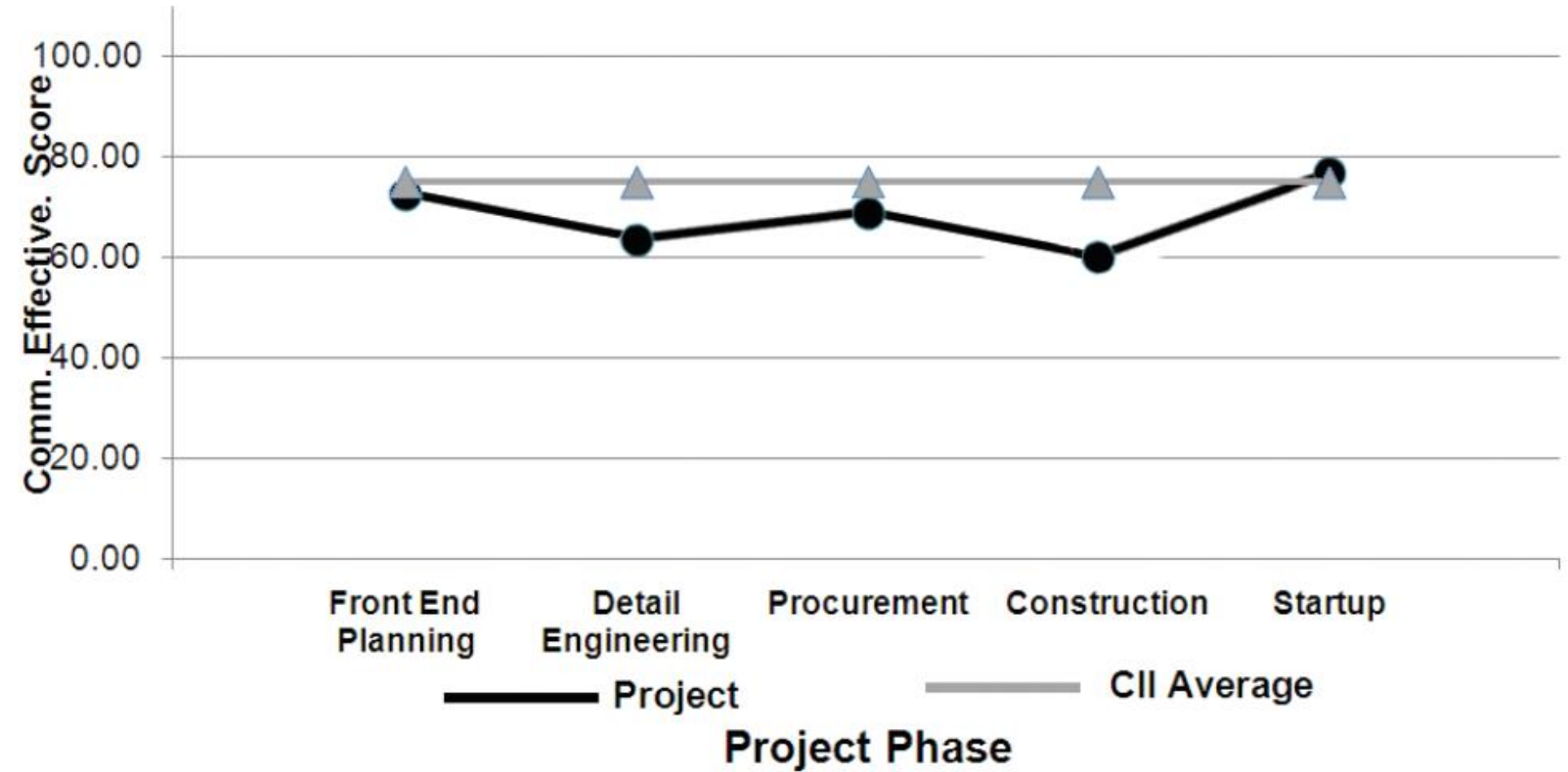
Effectiveness Score and Project Success

Project Management, Engineering, and Construction 80 Percent Confidence Band

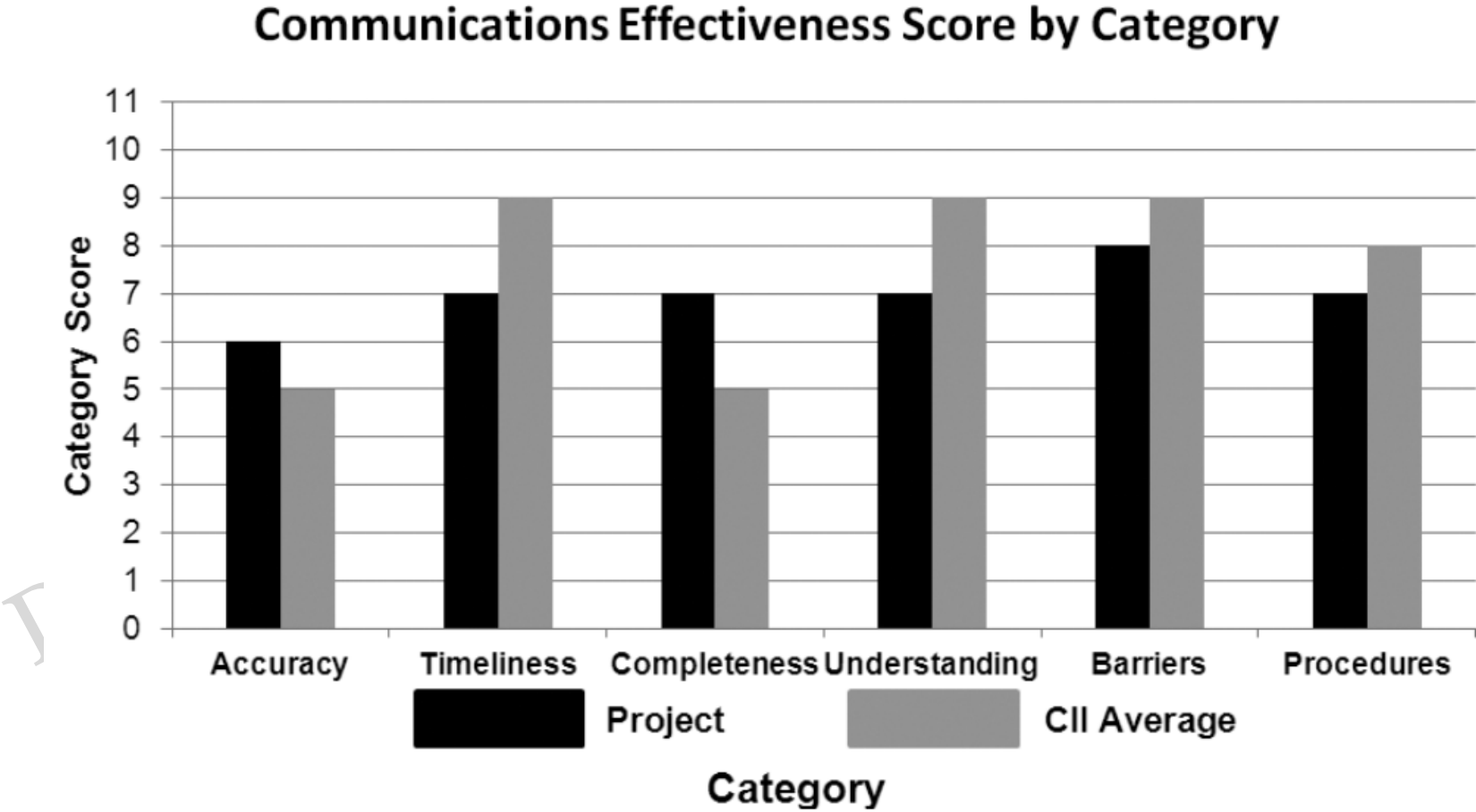


Trend Analysis

Communications Effectiveness Score by Project Phase



Communication Effectiveness Score by Category



Which Role / Stakeholder are you?



Project Management Questions

answered

1



Engineering Questions

2



Construction Questions

3

Question 1:

How well do you understand what information your
SUPERVISOR expects from you?

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Question 2:

How well do you understand what information
OTHER GROUPS on this project expect from you?

Question 3:

How often do you receive conflicting instructions from more than one person?

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Question 4:

How often does poor communication or lack of coordination occur in your job?

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Question 5:

Does the project have written procedures/practices for your work scope?

(e.g., the Project Execution Plan or a similar document)

Question 6:

How effective are these procedures?

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Question 7:

Is a Project Execution Plan (or a similar document)
being used?

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Question 8:

How often are you kept current with DESIGN
CHANGES?

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Question 9:

How often are you kept current with SCHEDULE
CHANGES?

Do not Distribute

Question 10:

Do you feel you have ADEQUATE ACCESS
to the people with the information necessary for you to
perform your job?

Question 11:

How often do you receive less information than you need?

(i.e., how often do you experience information underload)

Question 12:

Overall, how effective do you think communication is on this project?

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Question 13:

In what phase is your project currently?

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15% Solutions

Discover and focus on what each person has the freedom and resources to do NOW.

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Surely you know...

- “Even a 100-mile journey starts with a single step.” ~ Lau Tzu
- How easy it is to
 - **get lost** in ambitious, over-the-top ideas that get bogged down in the realities of work.
 - **get lost** in ‘Yes, but ...’-thinking and focus on what isn’t possible.
- Either way, you can go easier on yourself and your team by **starting small**.

you can **change** the **course** of a river
by changing the **position** of a few rocks

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15% Concept (1/2)

“Most people have about 15-percent control over their work situations.

The other 85 percent rests in the broader context,
shaped by the general structures, systems, events and culture in which they
operate.

Gareth Morgan
(1943 -)



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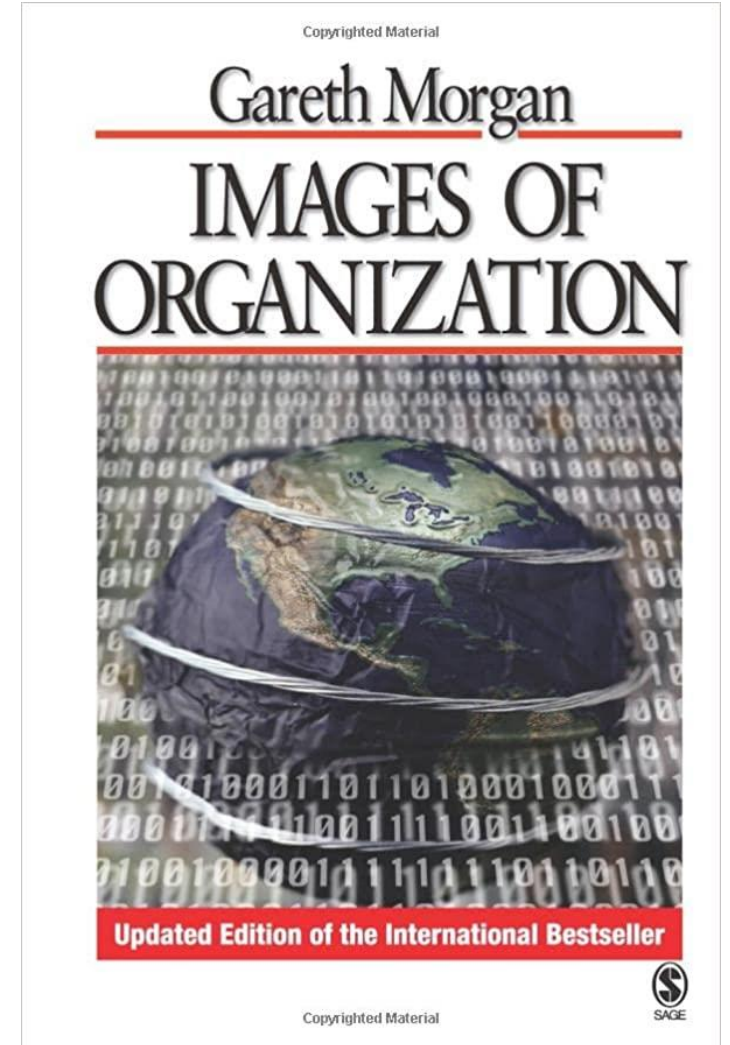
15% Concept (2/2)

The challenge rests in finding ways of creating **transformational change incrementally**:

By encouraging people to mobilize **small but significant “15% initiatives”** that can **snowball** in their effects.

When guided by a sense of shared vision, the process can tap into the self-organizing capacities of everyone involved.”

The key point is
to get people identifying
the 15% initiatives where they can
make a difference and the broadscale
transformation will emerge



Gareth Morgan, *“Images of Organization”*, 3rd edition, 2006, SAGE Publication

Where to find 15% solutions?

- 15% Solutions can be identified in relation to a shared solution you identified with your team.
- But it can also be deeply personal.
 - “I will buy different colors stickies to distinguish types of tasks”
 - “I will refactor this class we’re struggling with”.
 - “Instead of staying silent and grumble, I will speak out when someone does this thing I don’t like” to
 - “When I get worried, I will focus on my breathing”.

Steps (1/2)

Although you should make sure to do all the rounds and (at least) start each round individually, you can be flexible with the time-boxes:

- 1** - Introduce 15% Solutions. We find it helpful to also explain the concept of 15% Solutions, and how small changes can spark big change;
- 2** - First individually, ask people to list their personal 15% Solutions to a topic or challenge at hand. (5 min);

Steps (2/2)

- 3** - In small groups, invite people to share their 15% Solutions (3 minutes per person). The purpose here is to share potential 15% Solutions, not to judge or respond to them;
- 4** - In the same groups, members help refine and clarify the 15% Solutions (5 minutes per person).

The purpose here is to make the 15% Solutions **as doable as possible** and to make them **smaller when needed**.

Another purpose is to **explore how groups can help** the individuals in achieving their 15% Solutions.

"What is your 15% Solution? Where do you have discretion and freedom to act?
What can you do without more resources or authority?"

A good first step for me is to...

MY NAME:

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Guiding Questions (1/2)

- What is my 15% solution?
- Where do I have Freedom and Authority to do something?
- What can I do, without New Resources and More Authority?

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Guiding Questions (2/2)

- Some suggestion seems a bit too big to you...
- You can ask
 - What is the first step for this?
 - Where can we start?

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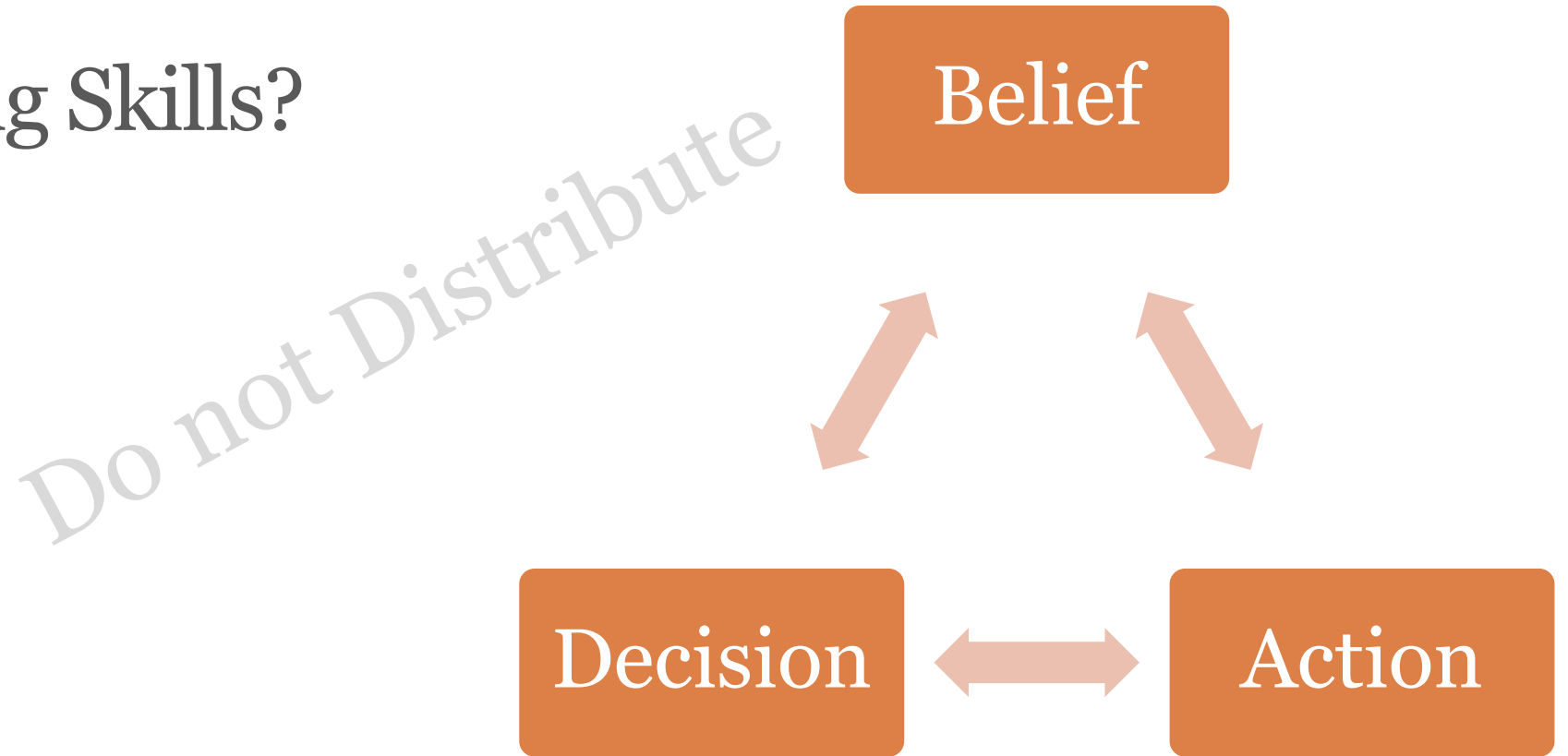


Part 1.7

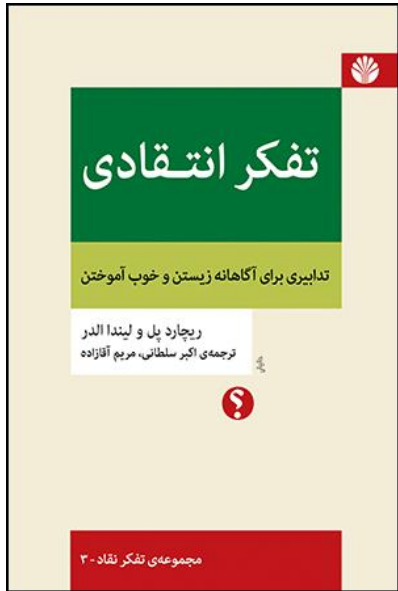
The Art of Questioning

An Introduction to Critical Thinking Skill

Why Thinking Skills?



Richard Paul and Linda Elder's Model



THE STANDARDS	
Clarity	Precision
Accuracy	Significance
Relevance	Completeness
Logicalness	Fairness
Breadth	Depth

Must be
applied to

THE ELEMENTS	
Purposes	Inferences
Questions	Concepts
Points of view	Implications
Information	Assumptions

As we learn
to develop

INTELLECTUAL TRAITS	
Intellectual Humility	Intellectual Perseverance
Intellectual Autonomy	Confidence in Reason
Intellectual Integrity	Intellectual Empathy
Intellectual Courage	Fairmindedness

Intellectuals Standards

سنجه‌های اندیشه

Clarity

Accuracy

Precision

Relevance

Depth

Breath

Logicalness

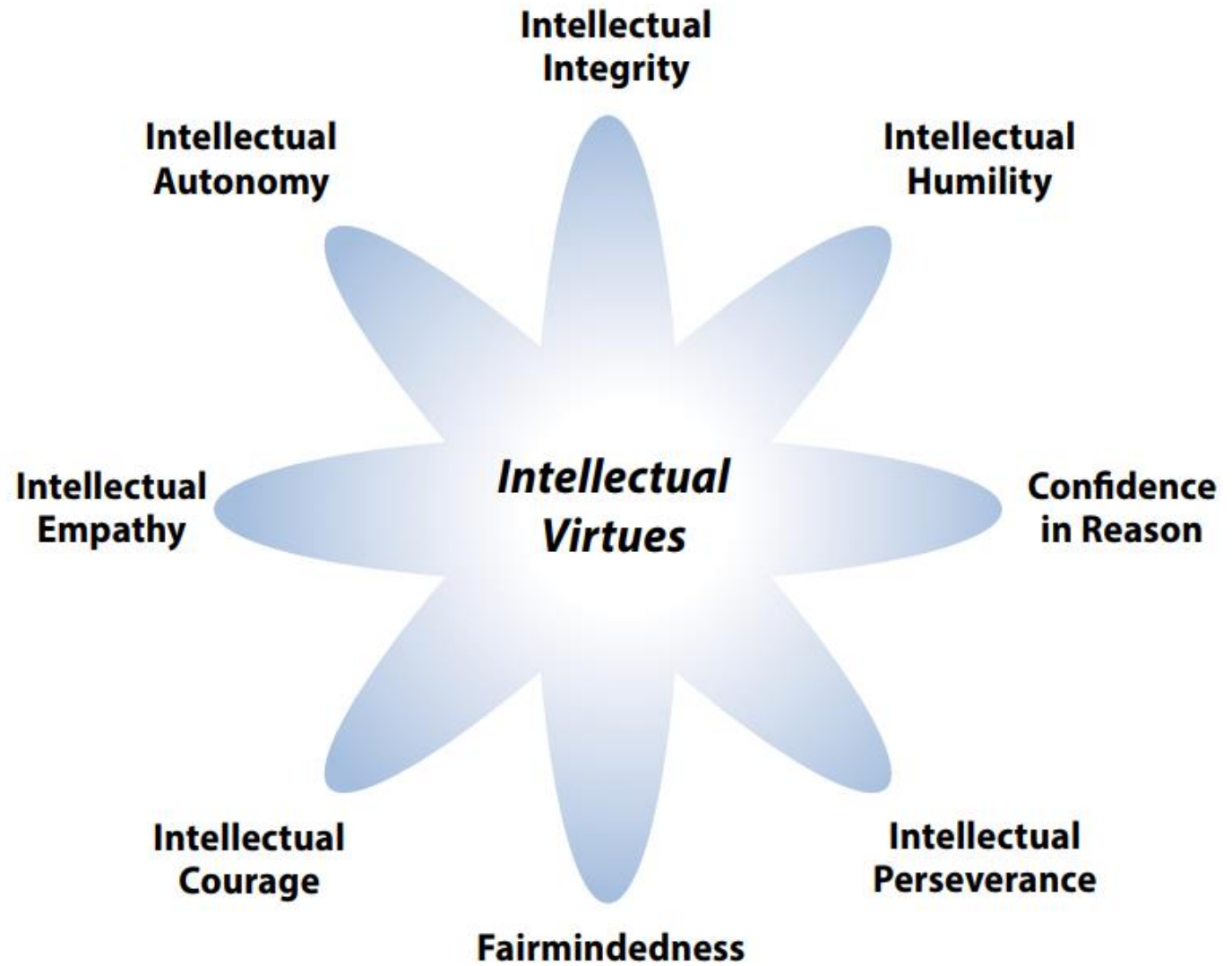
Significance

Fairness

Sufficiency

Intellectual Virtues

فضایل فکری

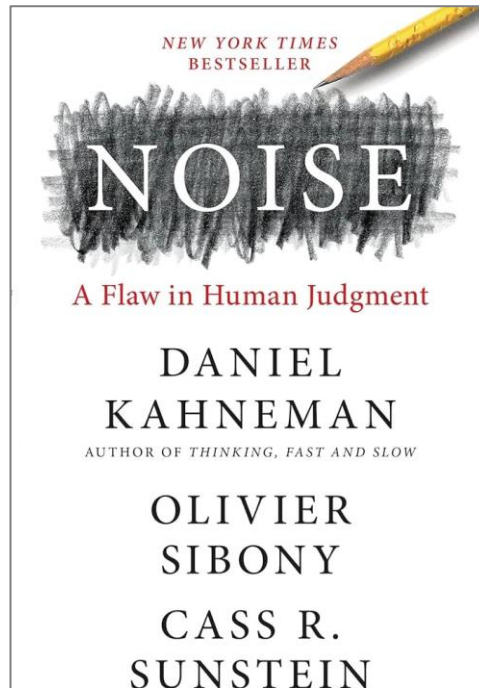
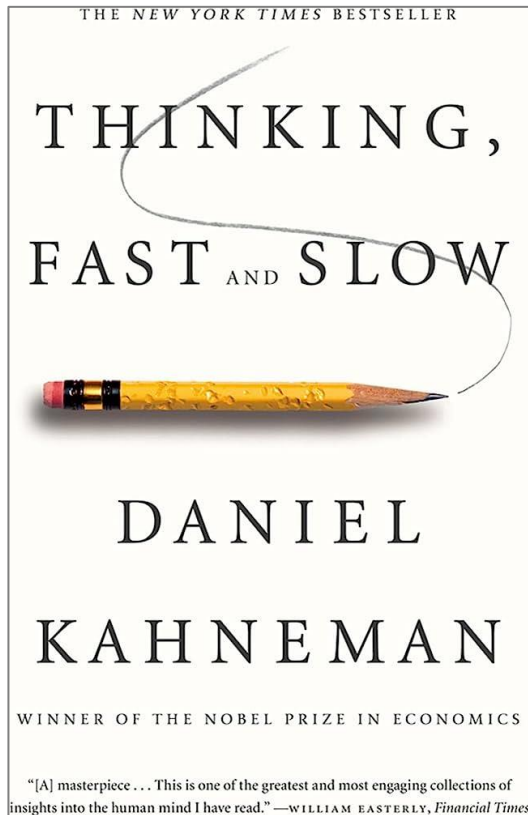


DC

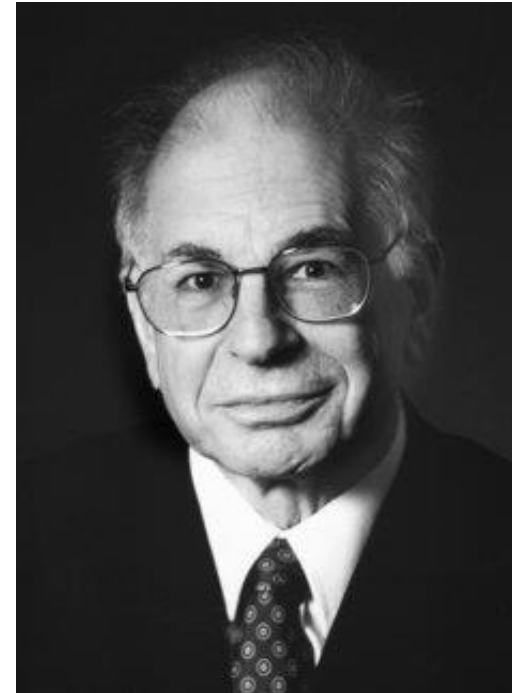
Why critical thinking is difficult?

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Thinking Fast and Slow



Daniel Kahneman
(1934 –)





THE 2 SYSTEMS



READINGGRAPHICS

ACTIONABLE INSIGHTS IN ONE PAGE

System 1 (Fast Thinking)

Continuously scans
our environment.



Fast but error-prone



Works automatically
& effortlessly via
shortcuts, impulses
and intuition.



System 2 (Slow Thinking)

Used for specific
problems, **only if
necessary**



Takes effort to analyze,
reason, solve complex
problems, **exercise
self-control**



Slow but reliable



We are **not wired** to cope with
the **complexity** of world

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کدام موقعیت «مشکلی بدون راه حل آماده» یا «پدیده‌ای بدون تبیین / توضیح سرراست»
است؟

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مثال ۱

فروش رونق دارد و میزان تولید بالاست، اما ارزش سهام کم شده

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مثال ۲

Do not Distribute

حجم تماس مشتریان بسیار کم شده

مثال ۳

Do not Distribute

دانشجویان کلاس آن انگیزه قبل را ندارند

مثال ۴

Do not Distribute

میزان خطاها در تولید بسیار زیاد شده

مثال ۵

این چهارمین بار است که تست بتنمان در این پروژه مردود می شود

Do not Distribute

مثال ۶

موجودی انبار با قطعات استفاده شده همخوانی ندارد.

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Opinion vs. Fact

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Fact vs. Factual

امر واقع
امر معطوف به واقع

مثال ۱

Do not Distribute

طعم تندى پياز نامطلوب است

مثال ۲

شرکت‌های داخلی خدمات را با قیمت‌های بالاتری ارائه می‌کنند

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مثال ۳

فقط یک دویستم قراردادهای شرکت به شرکت‌های زیرمجموعه خودمان واگذار می‌شود

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مثال ۴

قوانین سازمانی درباره حمایت از کارکنان خانم بی تفاوت است

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مثال ۵

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علی عقیده دارد که پیاز به او نمی‌سازد

Elements of Thought

زیرپوست افکارمان چه خبر است؟

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مثال ۲

ساعت ۱۱ شب می‌رسید به منزل
و می‌بینید پلیس با یک جعبه روبان پیچ‌شده دم در منزلتان ایستاده است.

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مثال ۳

پشت چراغ قرمز هستید.
کسی با عصای سفید، با سرعت زیاد، از خط عابر پیاده رد می شود.

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مثال ۴

رئاستان پیام می دهد که امروز بعد از ساعت کاری می خواهد شما را در دفترش ببیند

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انگاشته‌ها (Assumption)

برداشت‌ها

زیر پوست افکارمان چه خبر است؟

اطلاعات

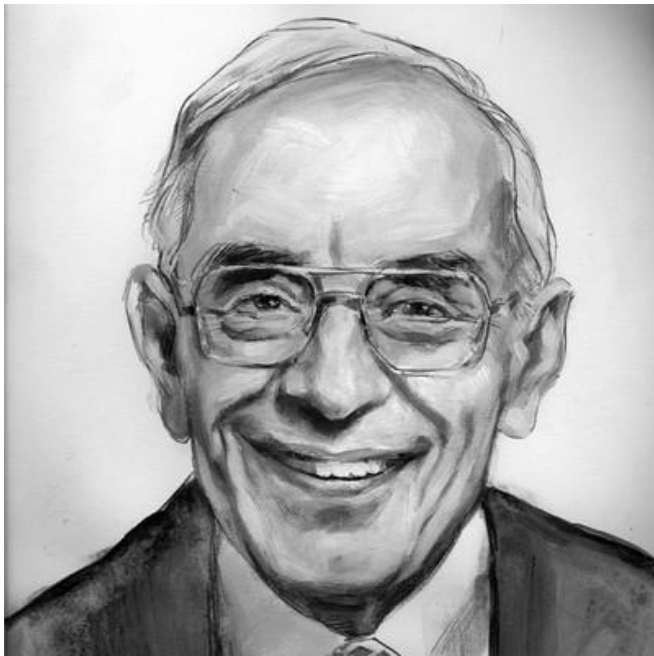
زاویه دید

تفاسیر

مقاصد

اشاره‌های ضمنی
(Implications)

Chris Argyris (1923-2013)



- One of the founders of Organizational development, Learning Organizations

On Organizational
Learning

2ND EDITION

Chris Argyris

- Chris Argyris on [Motamem](#)



کریس آرگریس و فاصله بین دانستن و عمل کردن

Theory-in-Use vs. Espoused Theory

کریس آرگریس و فاصله بین دانستن و عمل کردن

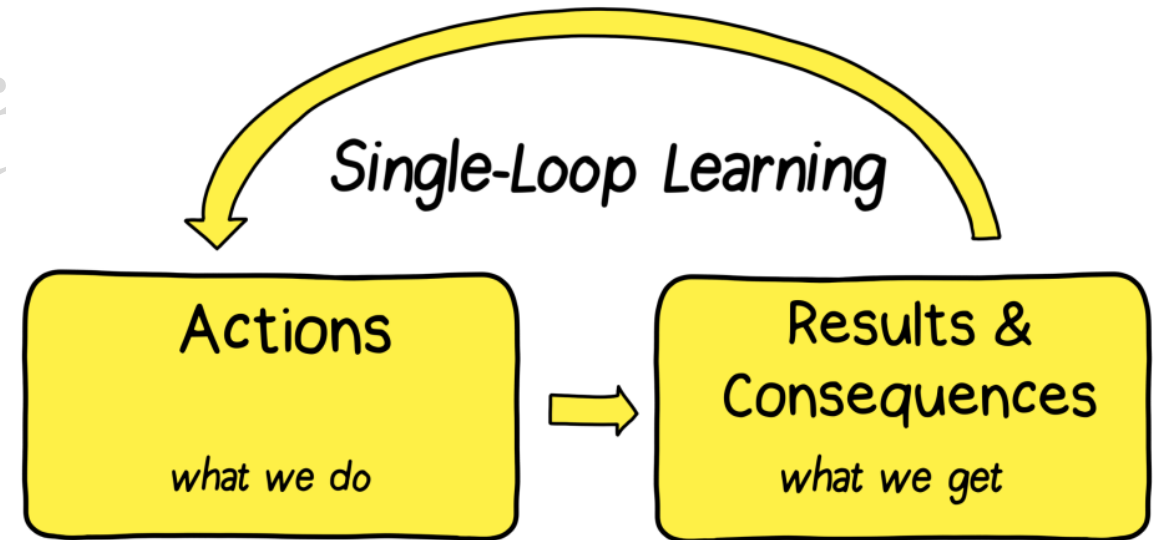
Theories-in-use نظریه مورد استفاده	Espoused Theories نظریه مورد حمایت
نظریه‌ای که فرد در شرایط واقعی، بر اساس آن رفتار می‌کند و تصمیم می‌گیرد.	نظریه‌ای که فرد به شدت از آن دفاع می‌کند و باور دارد که در دنیای واقعی بر اساس آن رفتار می‌کند و تصمیم می‌گیرد.

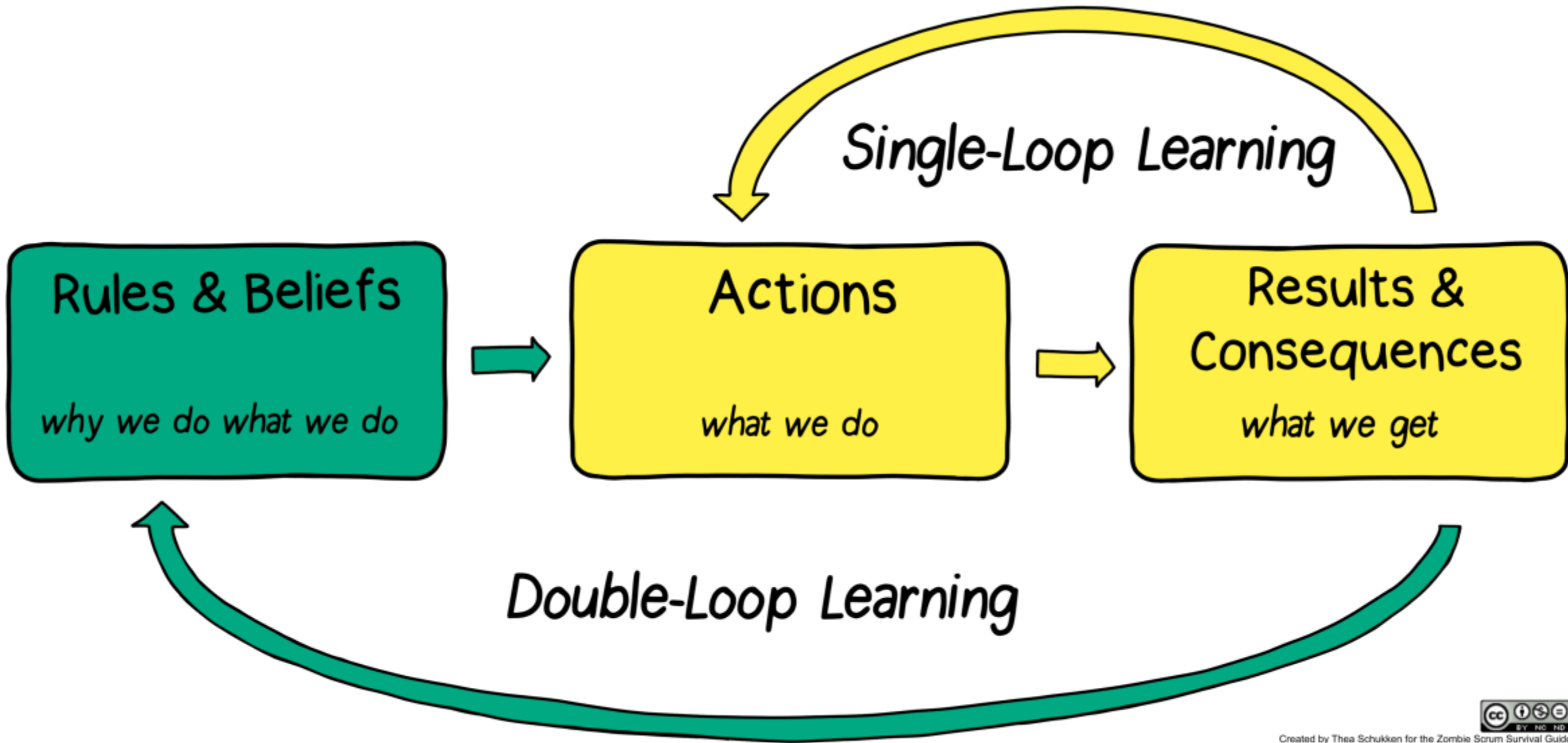
How do we learn?

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Single-Loop Learning

Single-loop learning focuses on solving a problem within an existing system that is defined by sets of beliefs, structures, roles, procedures, and norms.





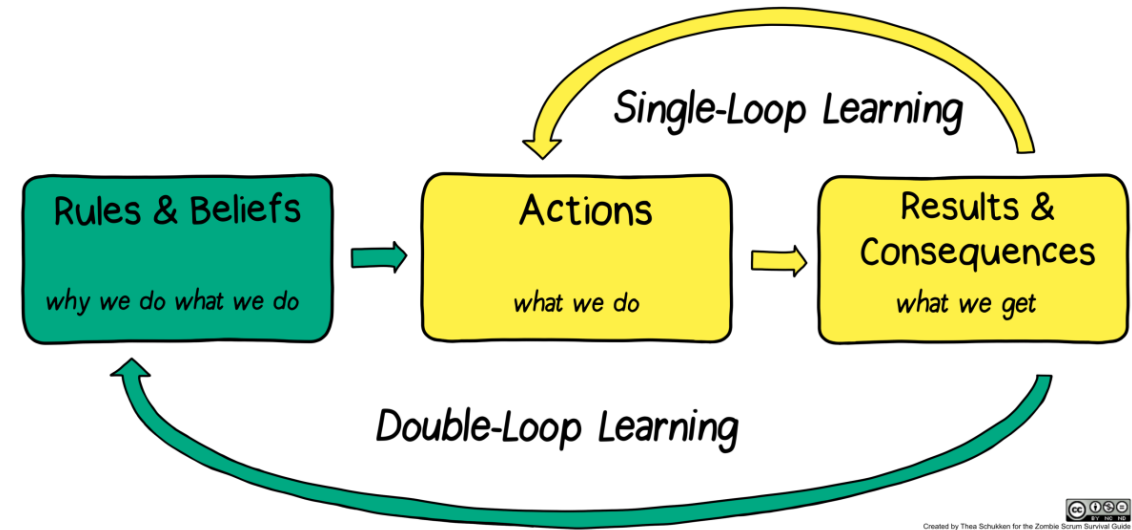
Source: Argyris, C. On Organizational Learning, Cambridge, MA: Blackwell, 1993



Created by Thea Schukken for the Zombie Scrum Survival Guide
by Christiaan Verwijs, Johannes Schartau & Barry Overeem
zombiescrum.org

Double-loop learning

- It is about challenging and changing the system.
- It helps people change (sometimes deeply held) assumptions and beliefs.
- Asking “Why we do what we do?”



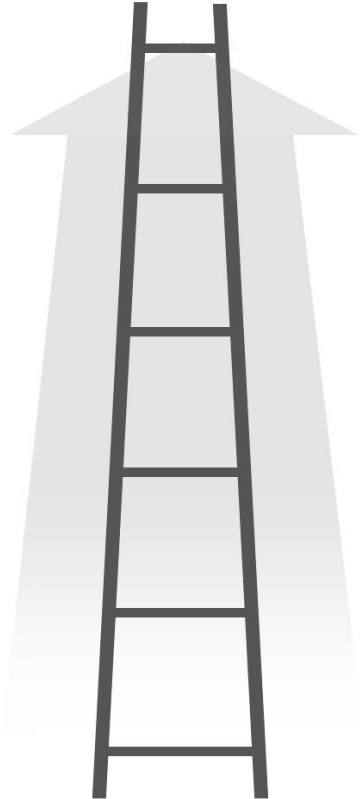
Why DLL is important?

- Although both types of learning are important for continuous improvement to happen, Argyris emphasizes double-loop learning (DLL) as particularly important for non-routine, complex work where teams have to constantly challenge not only how they do work, but also why.

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Ladder of Inference

نردبان استنتاج



I take **actions** based on beliefs

Now What?

I adopt **beliefs** about the world

I draw **conclusions** from assumptions

I make **assumptions** based on meaning

I add cultural & personal **meaning**

So what?

I select **data** from observations

What?



by theliberators.com – based on version by Keith McCandless & Henri Lipmanowicz

What, So What, Now What

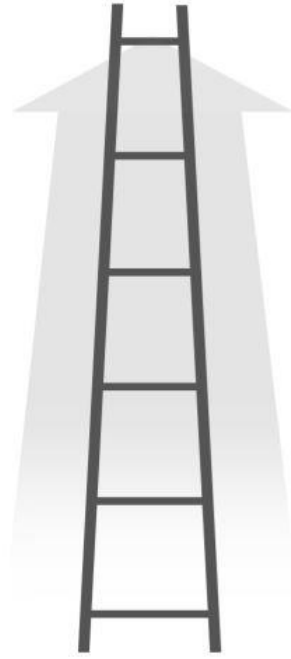
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What?

What has happened?

Purpose:

Create an Opportunity
for everybody to reach
the same understanding



I take **actions** based on beliefs

Now What?

I adopt **beliefs** about the world

I draw **conclusions** from assumptions

I make **assumptions** based on meaning

I add cultural & personal **meaning**

So what?

I select **data** from observations

What?

Caution:

Just focus on Observations

Do not include your Assumptions or Conclusions!

What?

- What has happened?

- **Caution:**

- Just focus on Observations.

Do not include your Assumptions or Conclusions!

- If someone tells some assumptions or conclusions, ask them
 - How have you understood this?
 - Based on what observations?

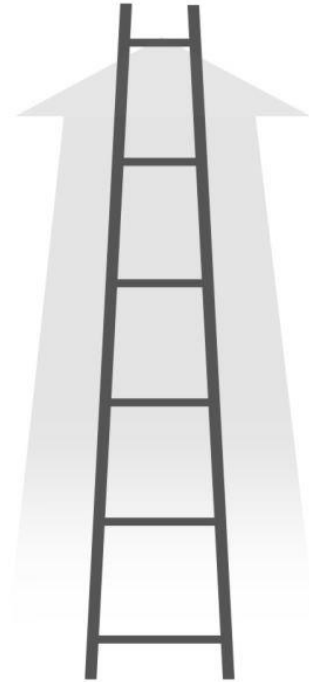
So What?

Why has something happened?
What's the importance?

Purpose:

We want to share the reasoning process

To make perceptions closer



I take **actions** based on beliefs

Now What?

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I make **assumptions** based on meaning

I add cultural & personal **meaning**

So what?

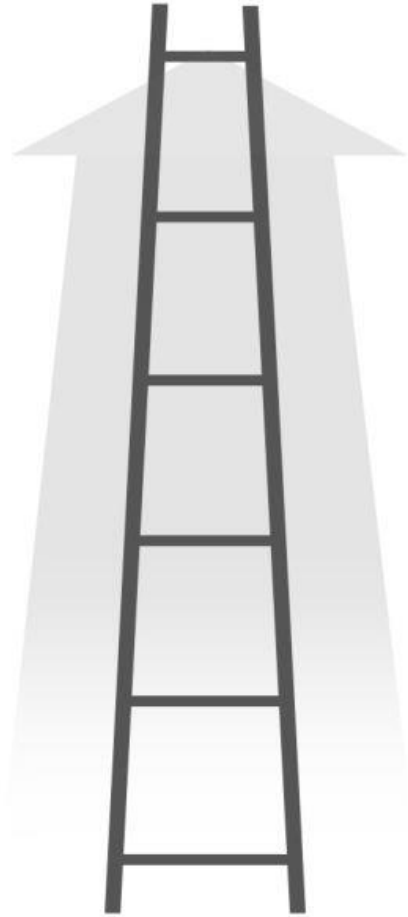
I select **data** from observations

What?

So What?

- What's the significance of these observations?
- What patterns have we found?
- What inferences can we present?
- What conclusions...?

Do not Distribute



I take **actions** based on beliefs

Now What?

I adopt **beliefs** about the world

I draw **conclusions** from assumptions

I make **assumptions** based on meaning

I add cultural & personal **meaning**

So what?

I select **data** from observations

What?