

# LEVERAGING COGNITIVE DIVERSITY FOR HEALTHCARE LEADERSHIP

*Health Systems Science  
Leadership Cohort*

*January 9, 2023*

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Cooperative Problem Solving*



# IN THE CONTEXT OF WORK, WHAT TYPES OF TEAMS ARE YOU ON?



- Clinical Practice
  - Research
- Specialty-Specific
- Licensure/Position
  - Administrative
  - OTHERS...
- MORE THAN ONE?



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# LEARNING OBJECTIVES

- Discuss Adaption-Innovation Theory as it relates to cognitive problem solving preference.
- Differentiate between cognitive effect and affect, and style and level/capacity.
- Compare adaptive and innovative preferences of individuals relative to task and team.
- Define cognitive gap and aspects for coping and bridging across gaps.
- Examine implications for leadership and management of cognitive diversity in health systems.

LEADERSHIP Food for Thought

VISION

Desired, ideal, or expected outcomes pending barriers.



COMMUNICATION

Clarity around accurate and appropriate identification and agreement upon the problem.



TRUST

Cognitive differences are valued with an acknowledgment of perceived challenges



VALUES

Provide the motivating factors for each of us and influence the decision-making process for each person.



# INSTITUTIONAL CORE VALUES

- Collaboration
  - Courage
  - Commitment
  - Compassion
  - Curiosity
- Collaboration and Excellence
  - Innovation and Discovery
  - Diversity, Equity, and Inclusion
  - Humanism and Compassion





WHAT WE KNOW...

AS HUMAN  
BEINGS...



- All people are creative
- All people solve problems

We just do so DIFFERENTLY



# ALL PEOPLE ARE CREATIVE

## Style

*In what way?*

**How am I  
creative?**

*In what manner do I  
prefer solving problems?*



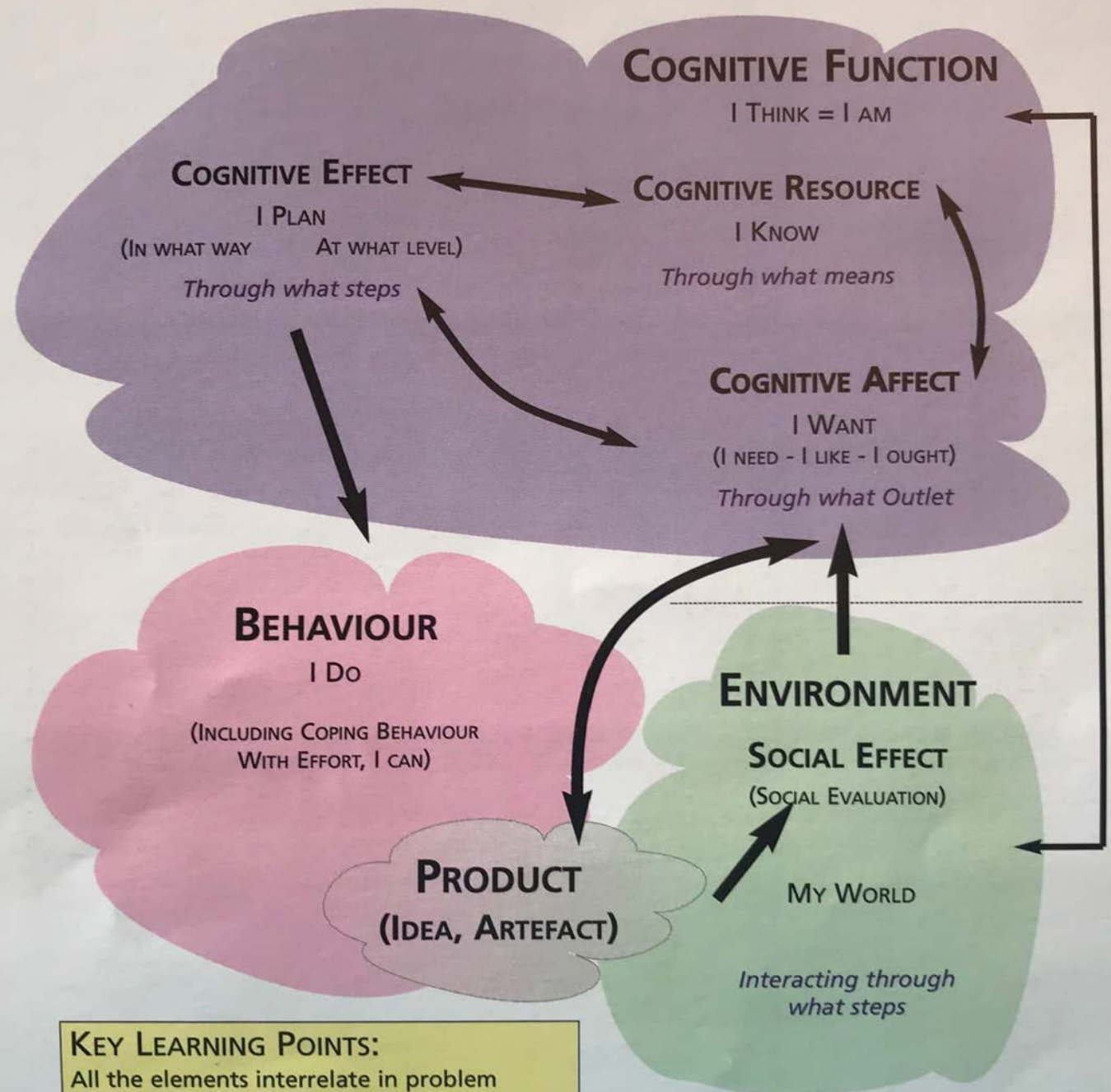
## Level

*How much?*

**How creative  
am I?**

*How good am I at  
solving problems?*

# COGNITIVE FUNCTION SCHEMA

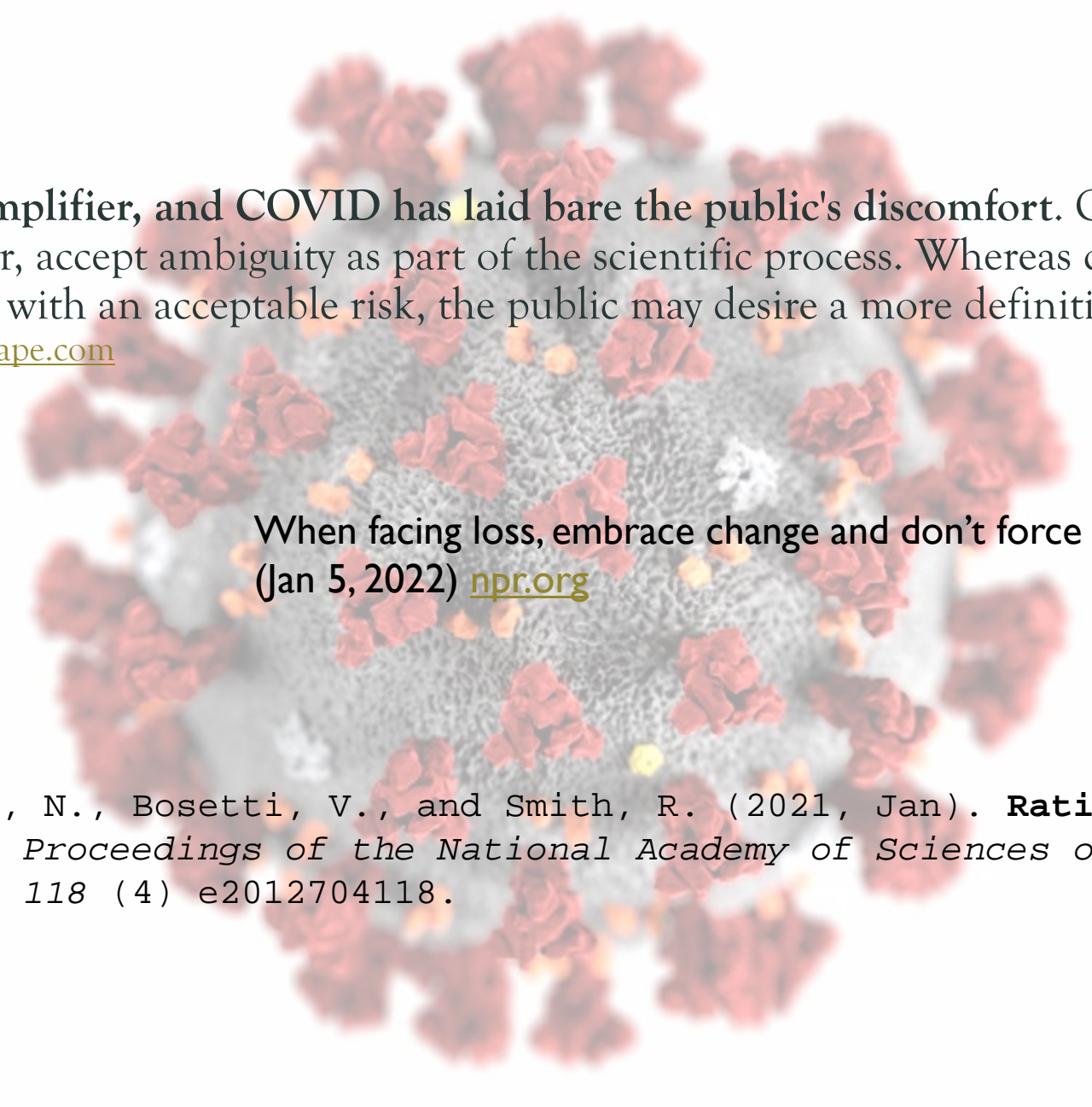




# CHANGE IS CONSTANT

*How we manage and lead through it is the variable*

(and it is dependent on our perception of it!)



Ambiguity is a fear amplifier, and COVID has laid bare the public's discomfort. Clinicians and scientists, however, accept ambiguity as part of the scientific process. Whereas clinicians and scientists practice with an acceptable risk, the public may desire a more definitive stance. (Aug 20, 2021) [www.Medscape.com](http://www.Medscape.com)

When facing loss, embrace change and don't force closure, a therapist urges. (Jan 5, 2022) [npr.org](http://npr.org)

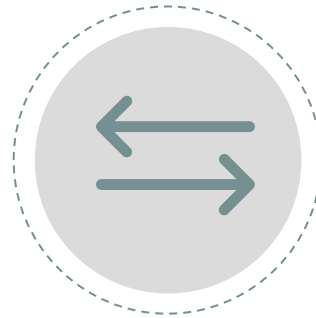
Berger, L., Berger, N., Bosetti, V., and Smith, R. (2021, Jan). **Rational policymaking during a pandemic**. *Proceedings of the National Academy of Sciences of the United States of America*, 118 (4) e2012704118.

# FACTORS INFLUENCING THE OUTCOME OF CHANGE



## OPPORTUNITY

Consideration of both process  
and progress



## MOTIVE

Intrinsic and Extrinsic factors driven by personal,  
social, and structural implications



## RESOURCE

Leveraging personal style and level  
to achieve outcomes (learning)

STYLE MAY NOT "BE" BEHAVIOR



STYLE IS STABLE  
BEHAVIOR IS FLEXIBLE

## PROBLEM SOLVING STYLE DEFINED

The way in which we generate  
ideas

The way in which we  
utilize/leverage structure to  
implement ideas

The way in which we respond to  
rules and group norms

# PROCESS OF PROBLEM SOLVING

Perception of the Problem

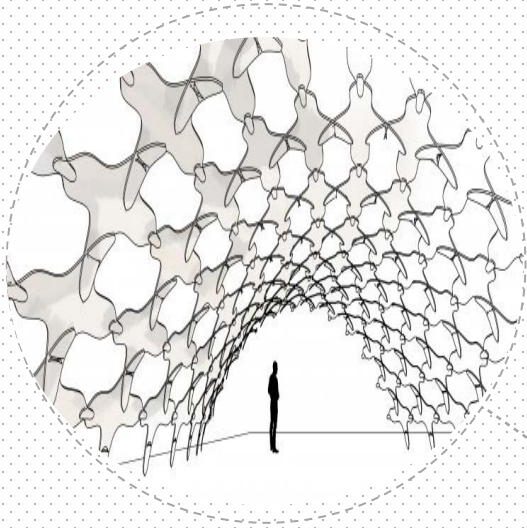
Analysis of the Problem\*

Analysis of the Solution

Agreement to Change

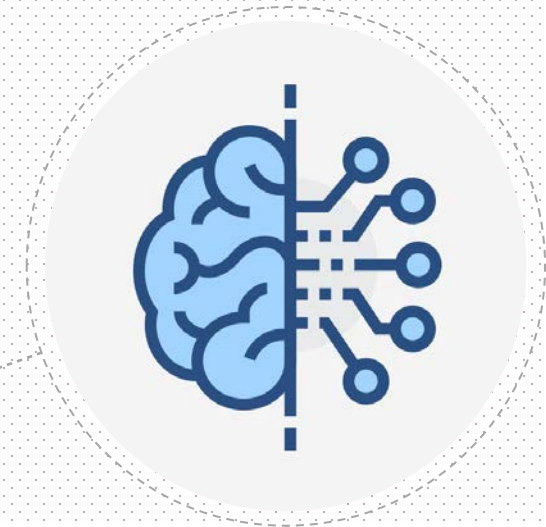
Acceptance of Change\*

Implementation



## PARADOX OF STRUCTURE

All structures (e.g. rules, policies, expectations, ambiguity) are enabling and limiting.



## INSIGHT AND FORESIGHT

Learning influences how we perceive a problem (opportunity) and may offer insight for response and foresight for future use



## STYLE AND BEHAVIOR

Our style is stable over time, but our behavior is flexible

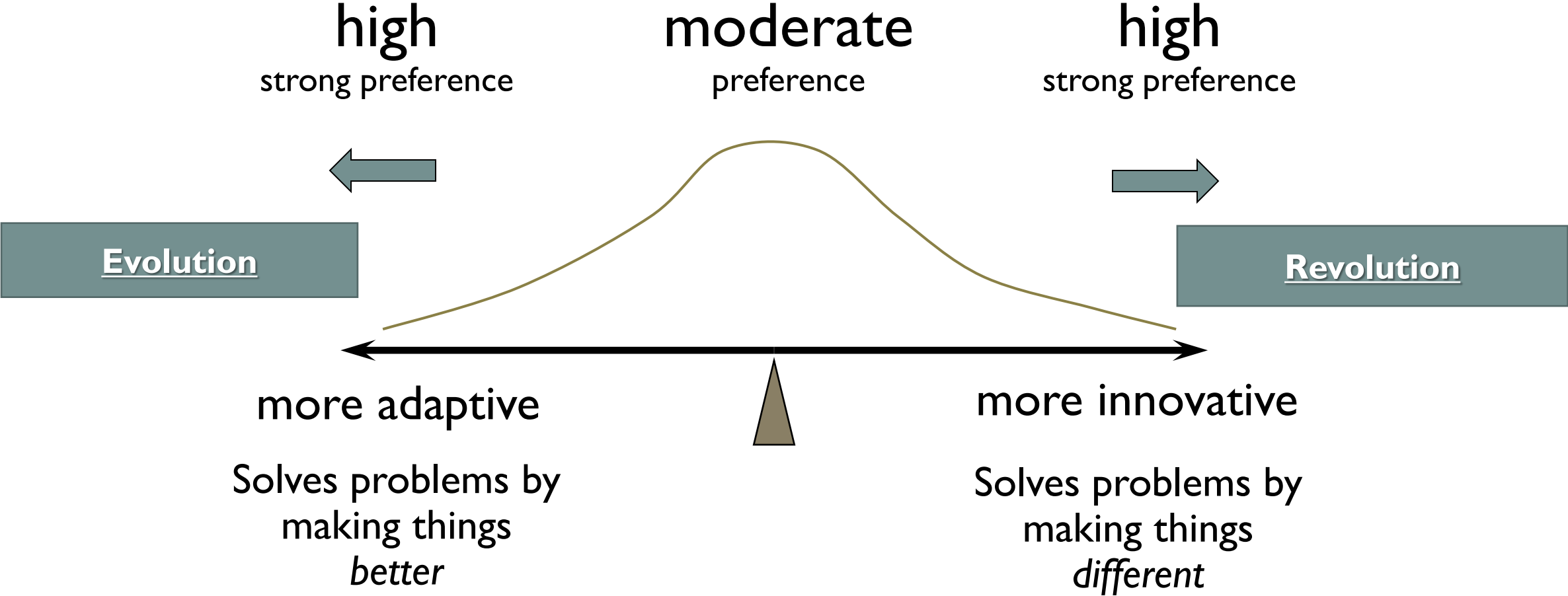




# WE MUST AGREE ON THE PROBLEM

*In order to solve it – and be able to manage cognitive diversity  
to do this well!*

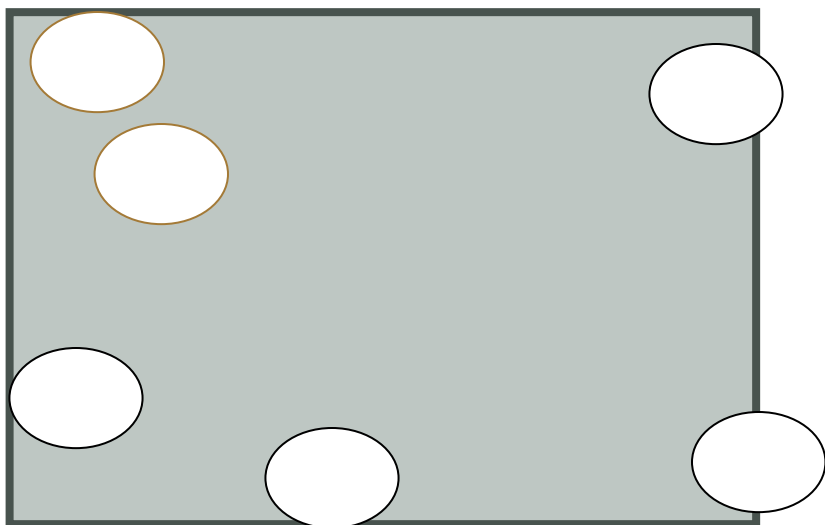
# Adaption-Innovation continuum (KAI)



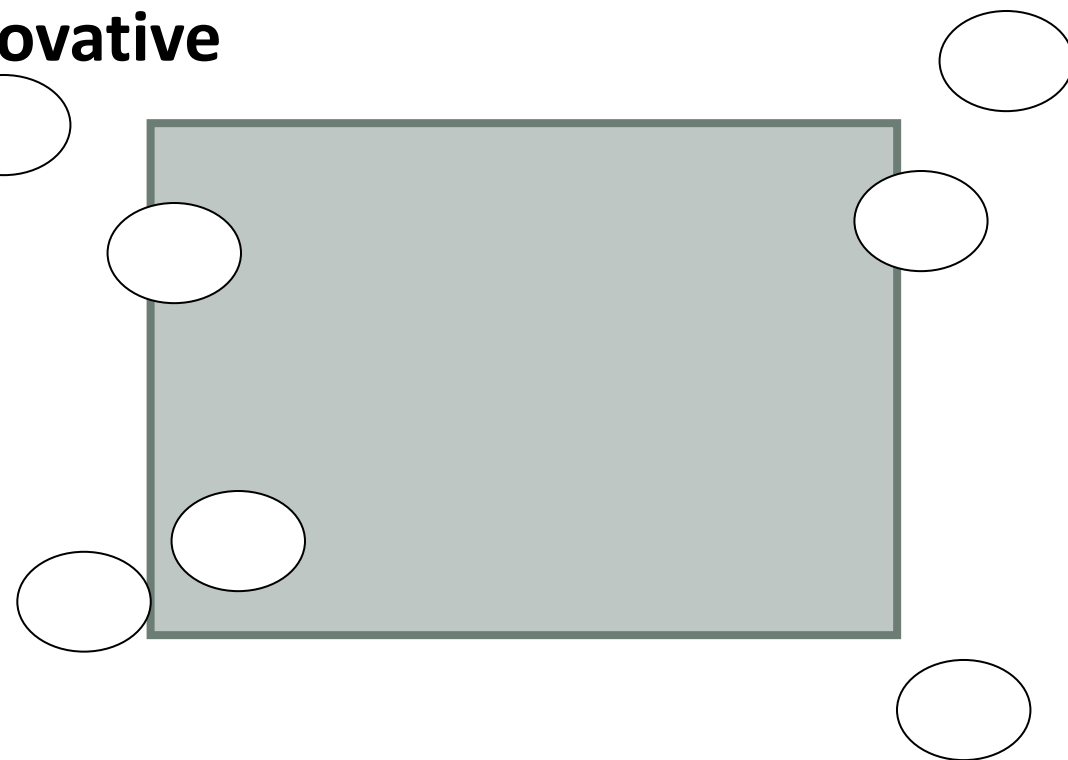
# (CREATIVE) THINKING STYLE IS STABLE

We each have a **stable** preference [style] for **how** we solve problems,  
make decisions and use our creativity to manage **change**.

**Adaptive**



**Innovative**



○ = Creative Idea

## MORE ADAPTIVE CHARACTERISTICS

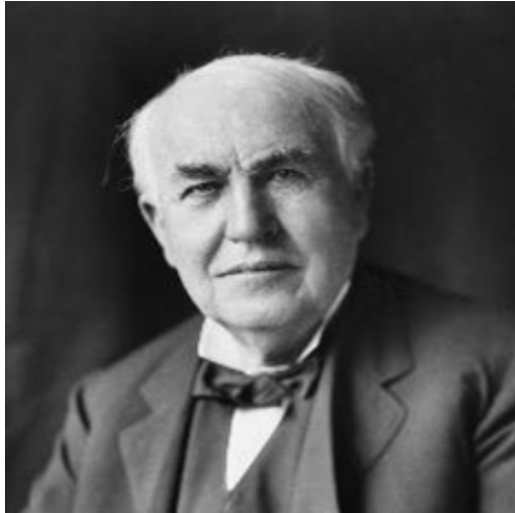
- prefer more structure
- produce targeted ideas
- expect high rate of success
- system improver change agents – “better”
- precise; master details
- consistent – seen as disciplined/reliable
- sensitive to people and groups
- more prudent risk takers

## MORE INNOVATIVE CHARACTERISTICS

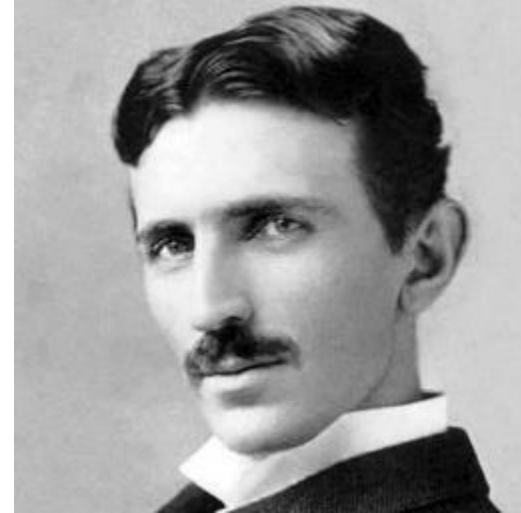
- prefer less structure
- proliferate many ideas
- tolerate higher rates of failure
- more radical change agents – “different”
- shed details; seen as undisciplined/visionary
- challenge rules and assumptions
- challenge the problem definition
- more daring risk takers



An example...



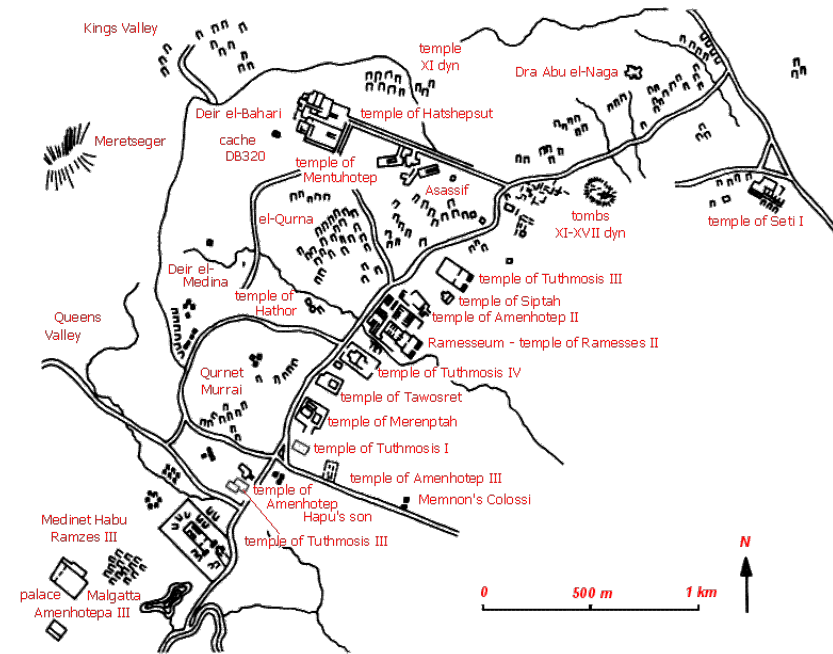
Highly Adaptive  
THOMAS EDISON



Highly Innovative  
NIKOLA TESLA

# ADAPTION

Howard Carter

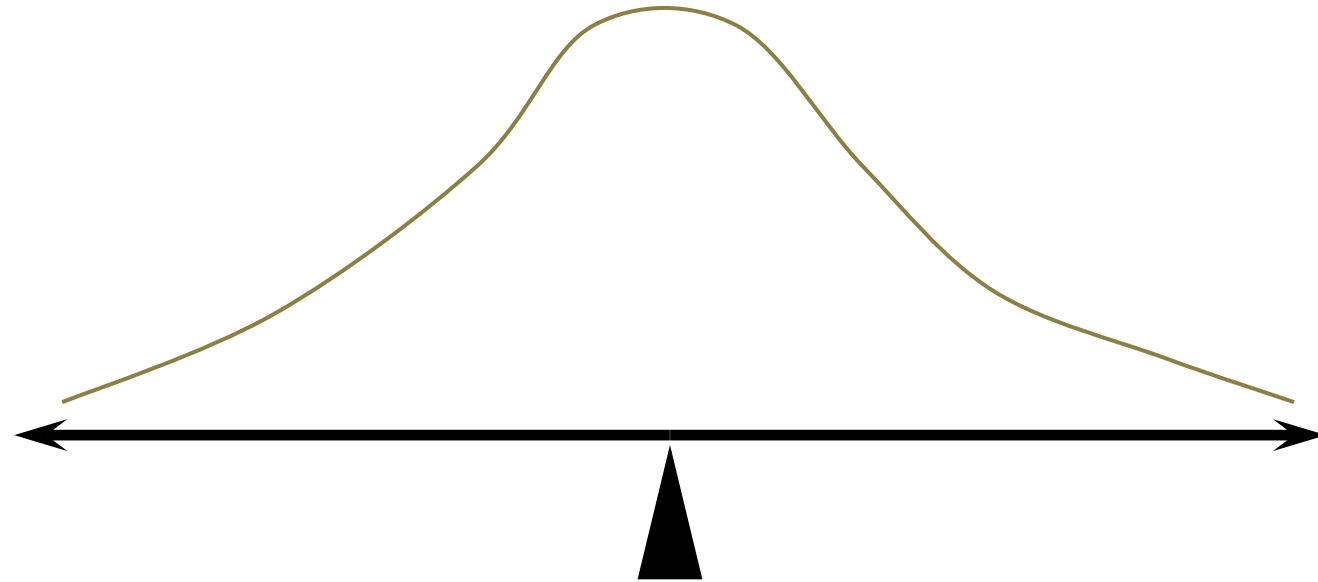


# INNOVATION

Dick Fosbury

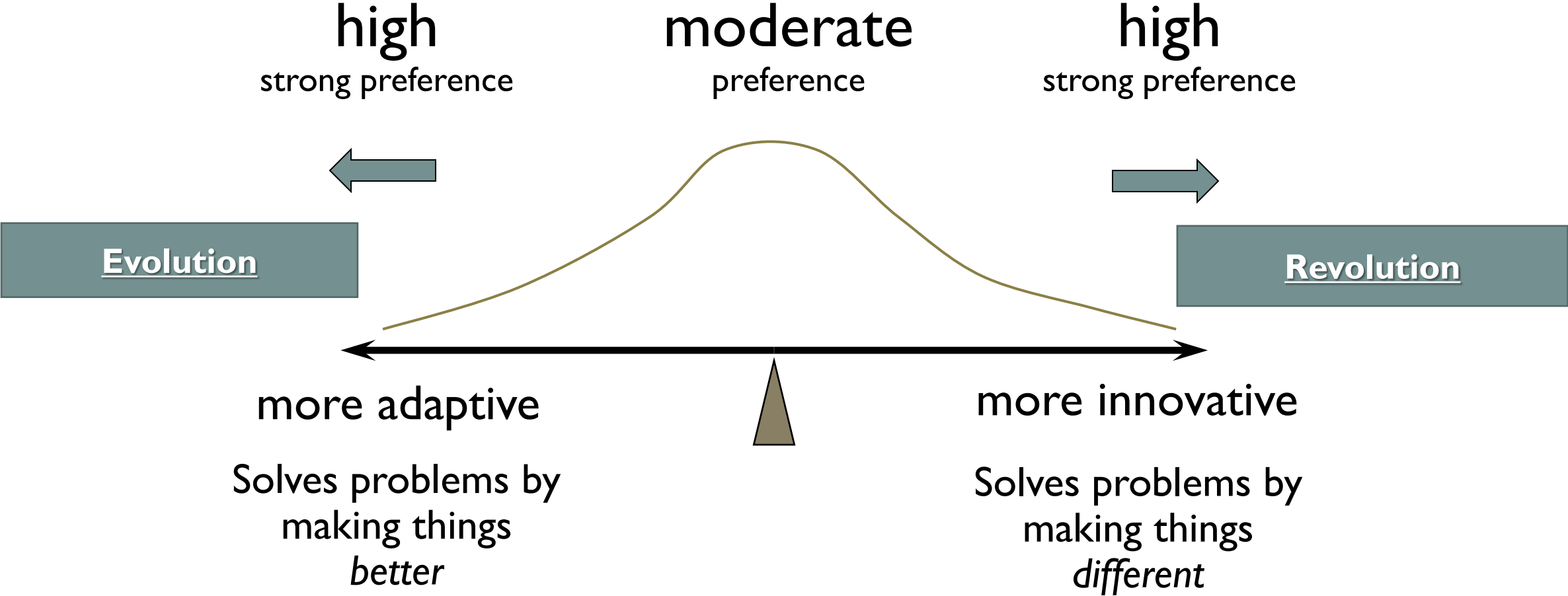


WHERE MIGHT YOU BE ON THE  
A-I CONTINUUM?

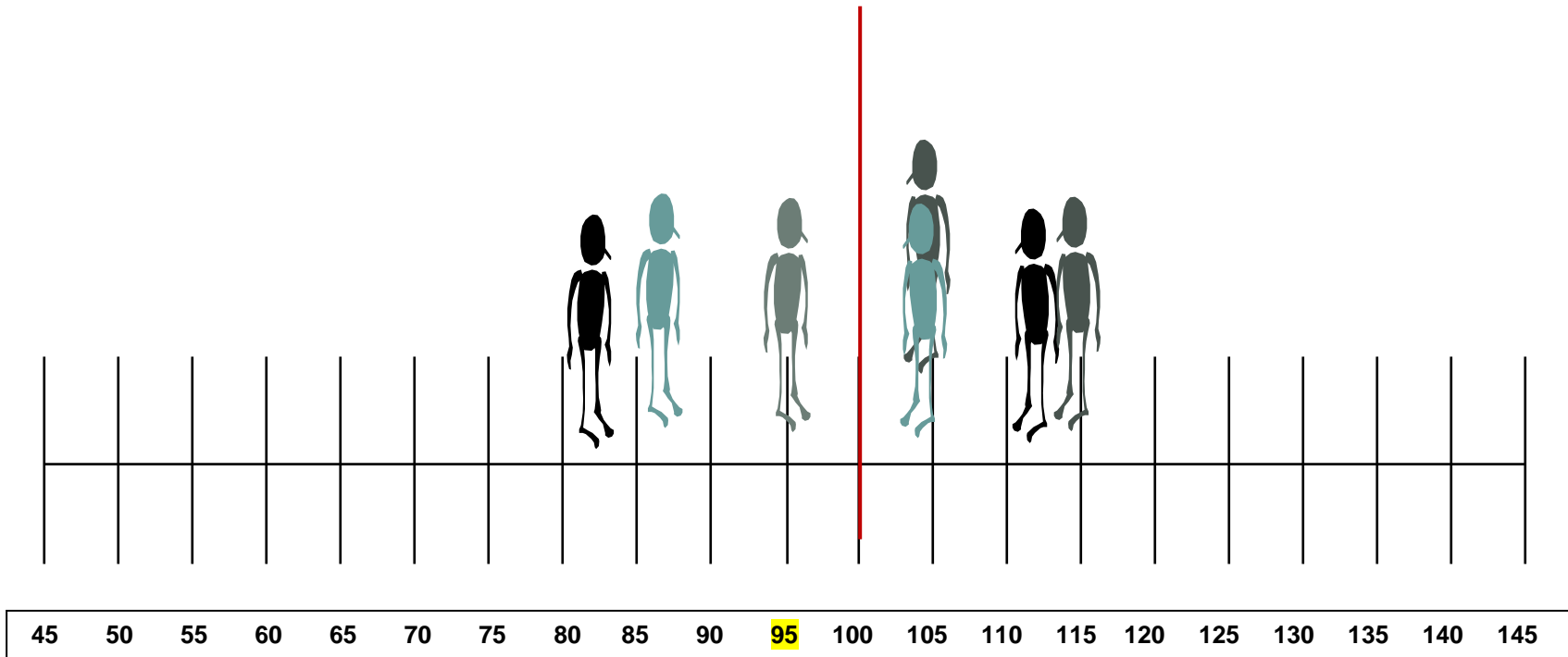




# Adaption-Innovation continuum (KAI)



# THSS Leadership Cohort: January 2023



**Range: 82-115**

**Mean: 100**

# TEAM ACTIVITY

- In your team breakout room, discuss the **ADVANTAGES** and **DISADVANTAGES** of the cognitive diversity of your team.
- Be prepared to report the highlights of your discussion back to the group.



# KAI SUB-SCALES

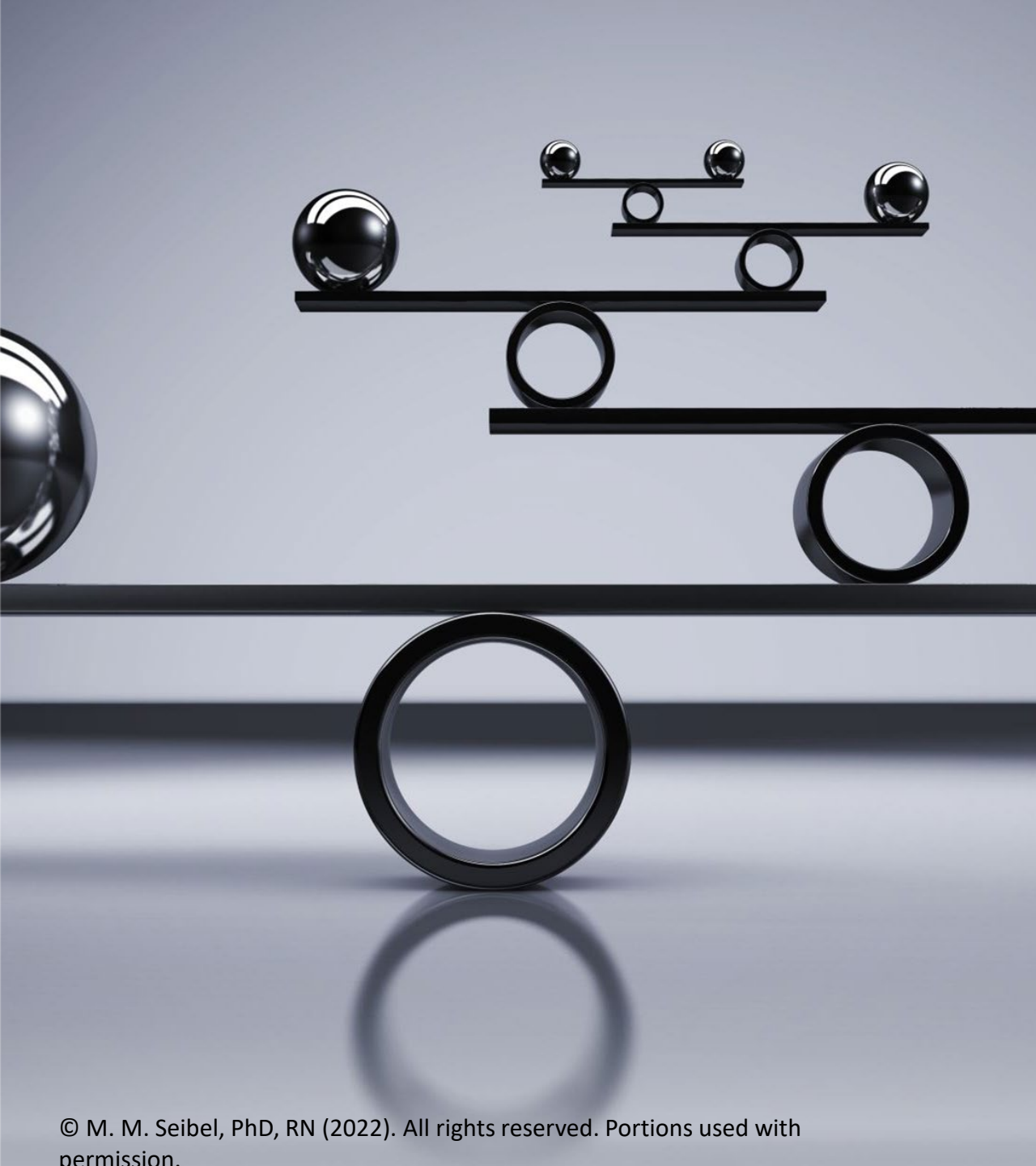
$$\text{KAI Score} = \text{SO} + \text{E} + \text{R}$$

SO= Sufficiency of Originality

E = Efficiency

R = Rule/Group Conformity

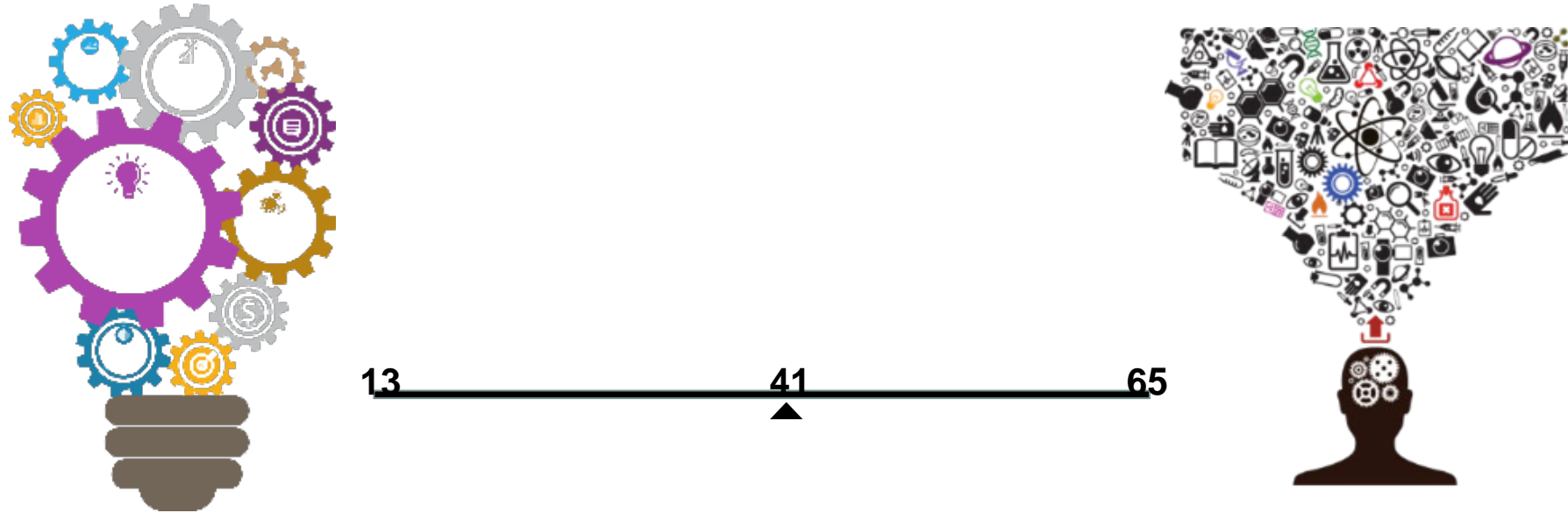




## KAI SUB-SCALES

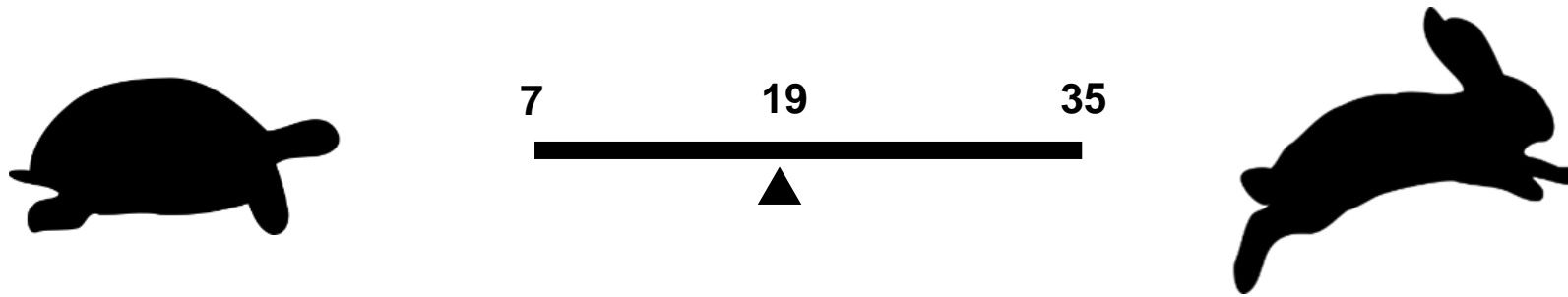
Scores in the sub-scales are the reason there can be significant variation in preference even with two people that have the same total score.

# SUFFICIENCY OF ORIGINALITY



The degree to which we are free or cautious in idea generating situations.

# EFFICIENCY

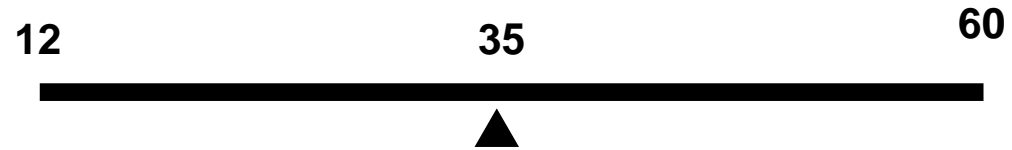


The degree to which we wish to have method, structure and process as we implement ideas and solutions.

# RULE/GROUP CONFORMITY



9ft Pre-lit Artificial Christmas Tree...  
target.com · Out of stock



The degree to which we feel the need to comply with rules and group norms.

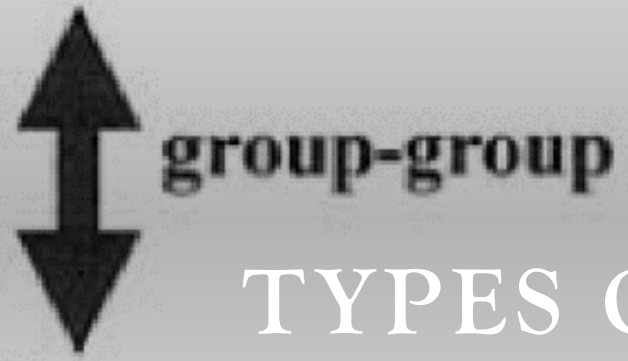
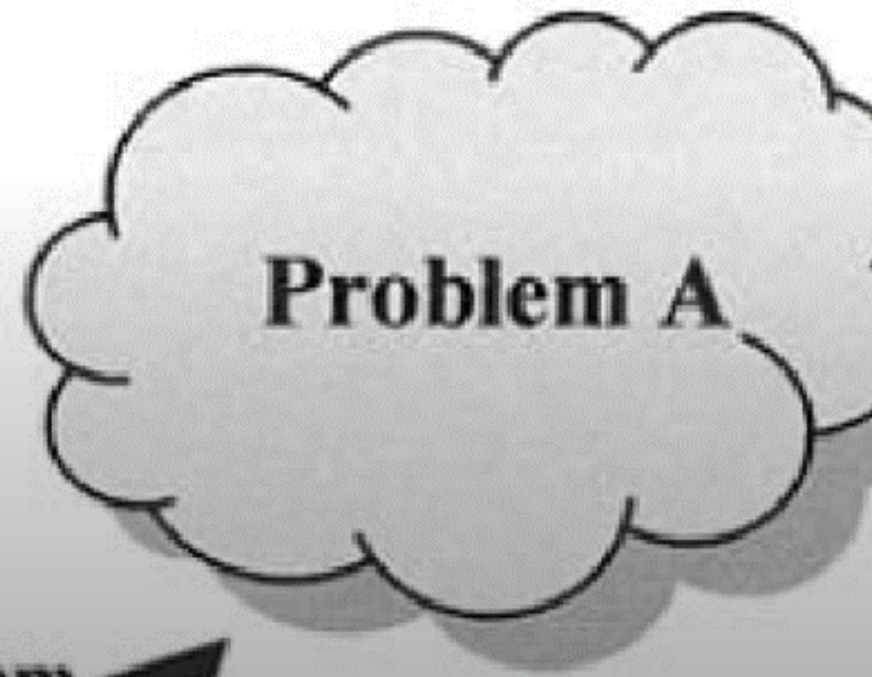
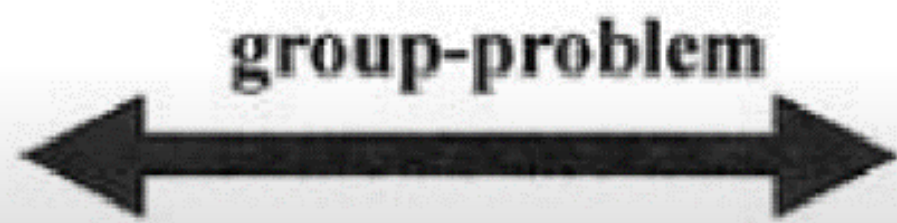


# DIFFERENCES ARE A GOOD THING!

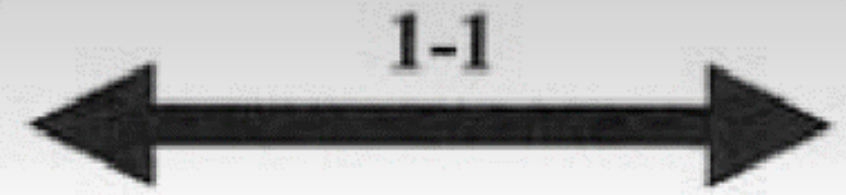
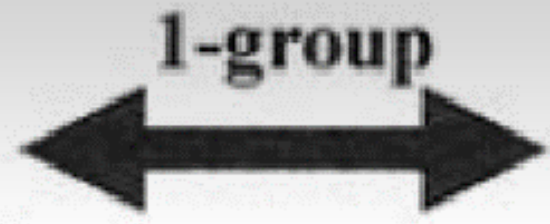
Neither adaptors nor innovators are better than the other at using their creativity when it comes to problem solving or decision making.

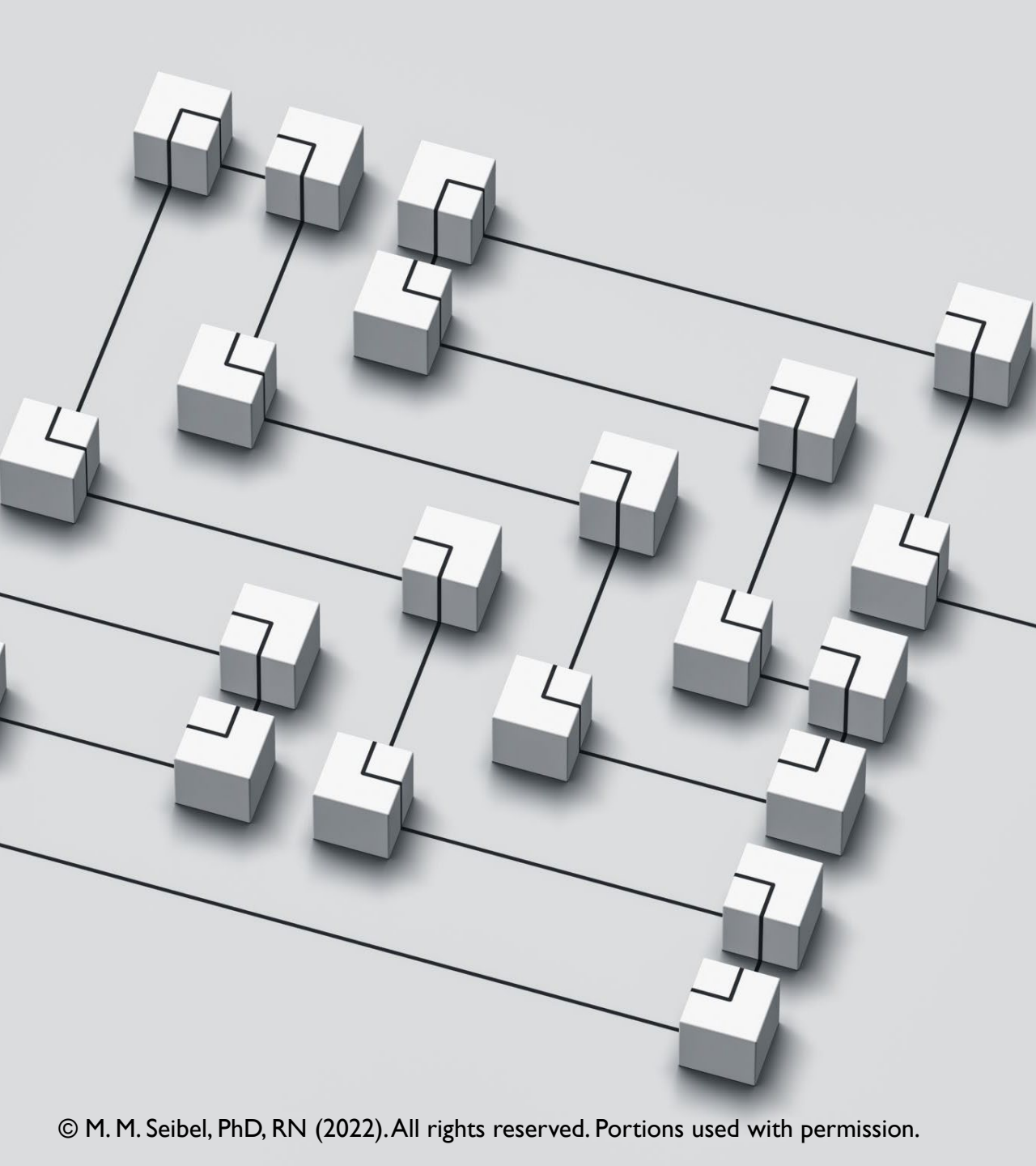
In particular situations, different degrees of adaption or innovation may be judged as more appropriate.

Adaptors and innovators may disagree about what is best in a situation, or confuse differences in style as differences in ability.



# TYPES OF PROBLEM-SOLVING GAP



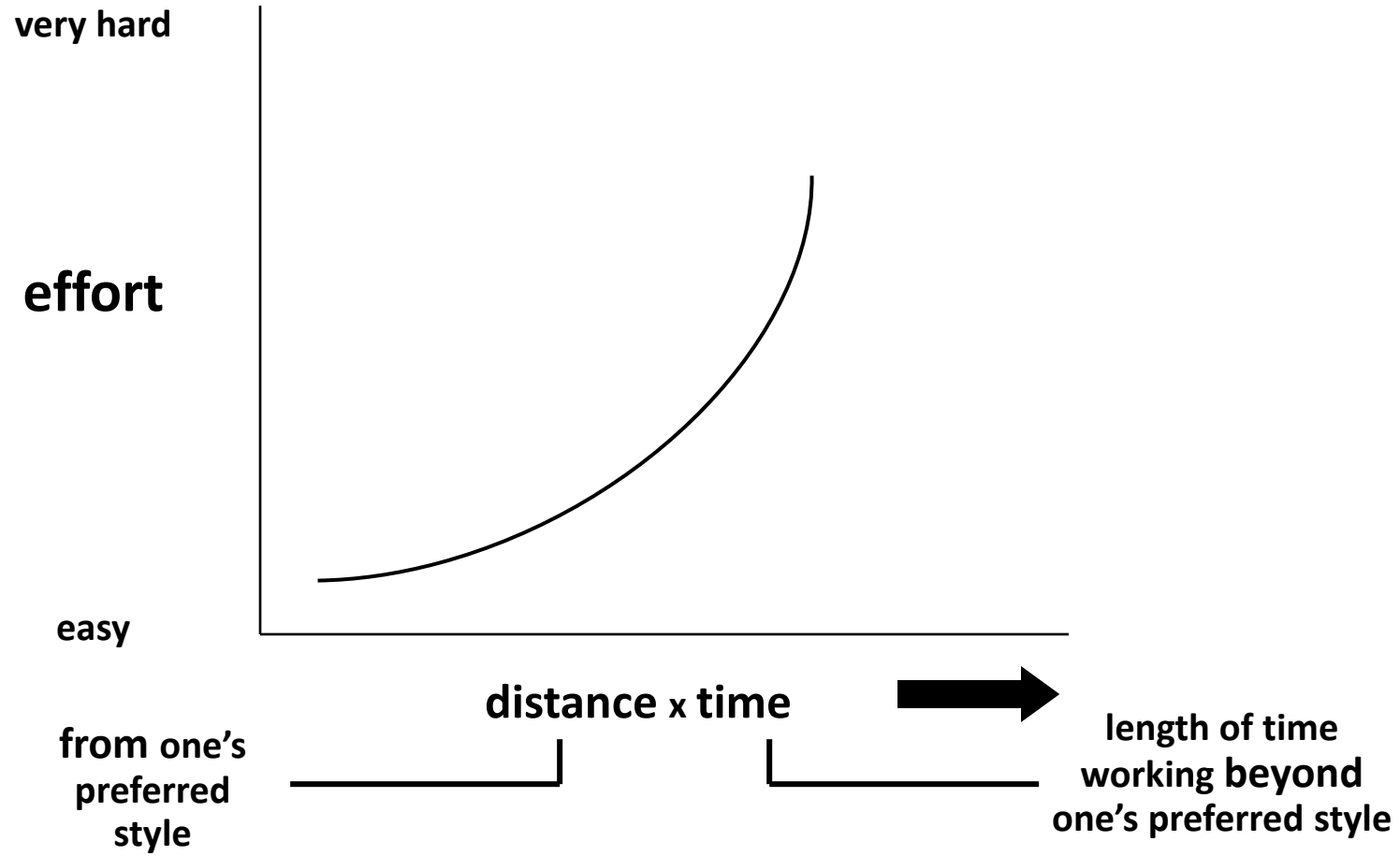


## CHALLENGES OF COGNITIVE GAP

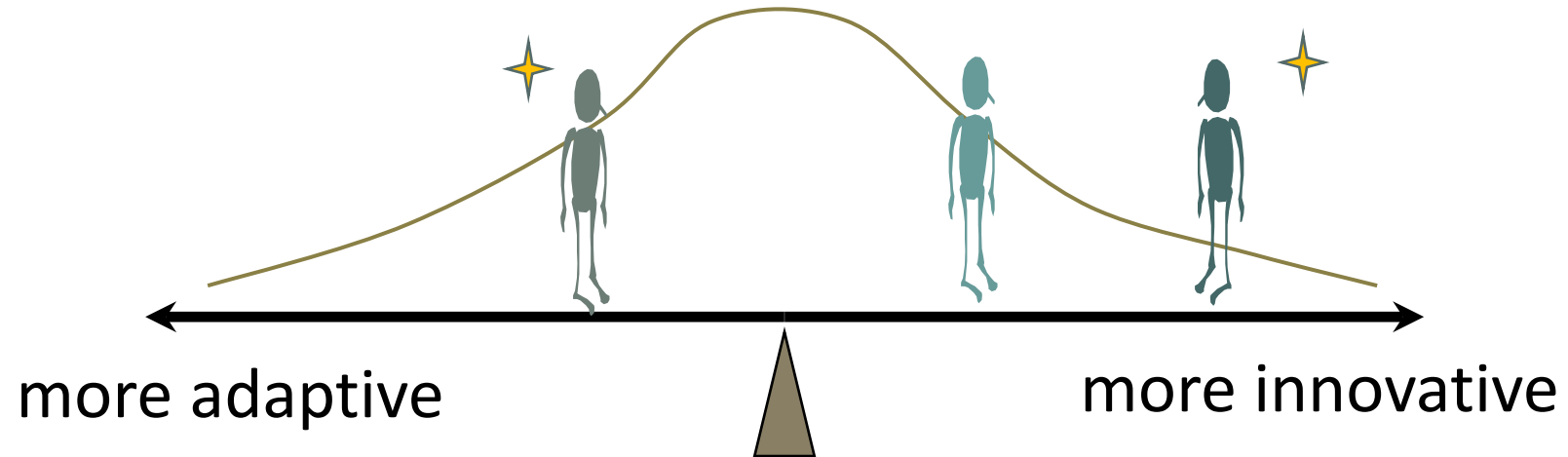
A 20-point style gap  
between individuals  
may inhibit:

- Communication
- Working together
- Trust

# Coping Behavior



# Cognitive Gap in Practice

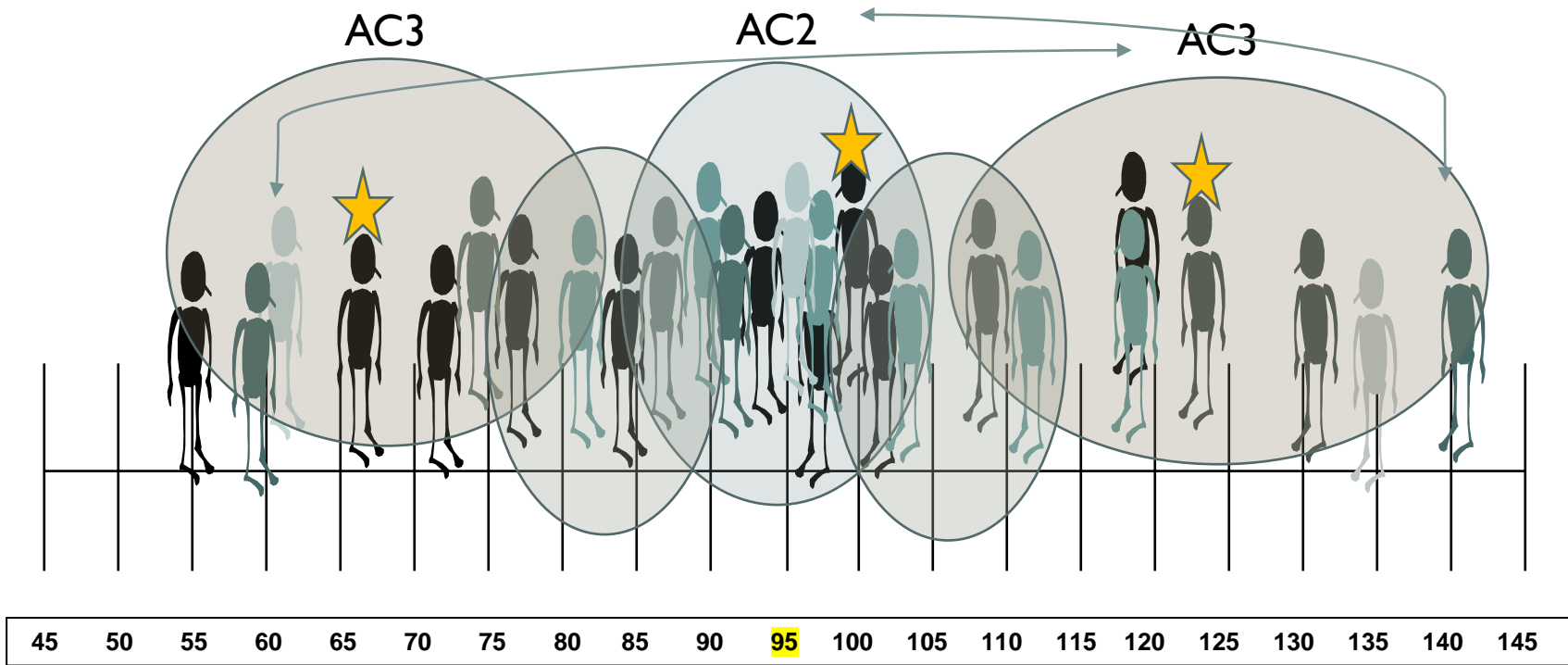


# Agents of Change (normal distribution example)

AC1: each of us

AC2: +/- 10 points of the group mean

AC3: >10 points more A or more I than the mean



*Bridging*

range: 55-140 mean: 95

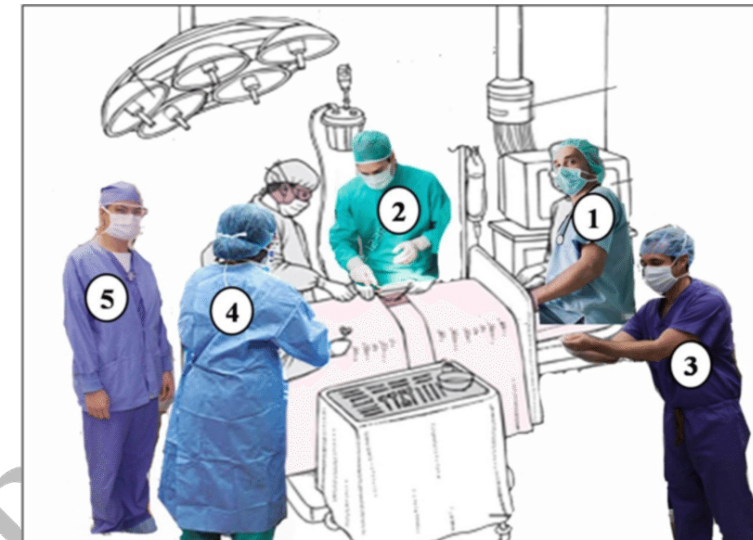
*Coping*

# Leadership

A good leader:

- Gets the best from everyone even in a widely heterogenous team
- Is effective even if located as an AC3
- Uses bridgers to integrate others not easily reached

“Some teams, by their very success, often create new conditions and these new conditions can give rise to needs that the current team is not best equipped to solve. In short, the team’s very success is the source of the need to build it anew.” (Theory workbook, p. 68).



# Applying Your Style...

Use of problem solving acumen to promote communication and an inclusive organization...

- monitor the effects of your own preferences
- effectively manage differences to best engage others
- strive to manage differences in ways that meet the needs of the task





THANK YOU!  
QUESTIONS?

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