Safety Culture: Management levers that drive safety performance

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Managing Risk
Systems Planning for Outdoor Adventure Programs

Agenda

1. Review: Variables on safety performance

2. Safety culture research and findings

3. Levers for changing safety performance

Bottom line:

- Safety Culture as ambiguity reduction
- Goal to align organization values and individual values
- Routines, social influence, and team structure as levers for safety performance
- Culture as a form of sensemaking and means of interpreting cues

Question:

Do we produce risk
or protect from risk?

- Production pays for protection

(Reason, 1997)

- Org culture as complex "internal accommodations to deal with inconsistencies"
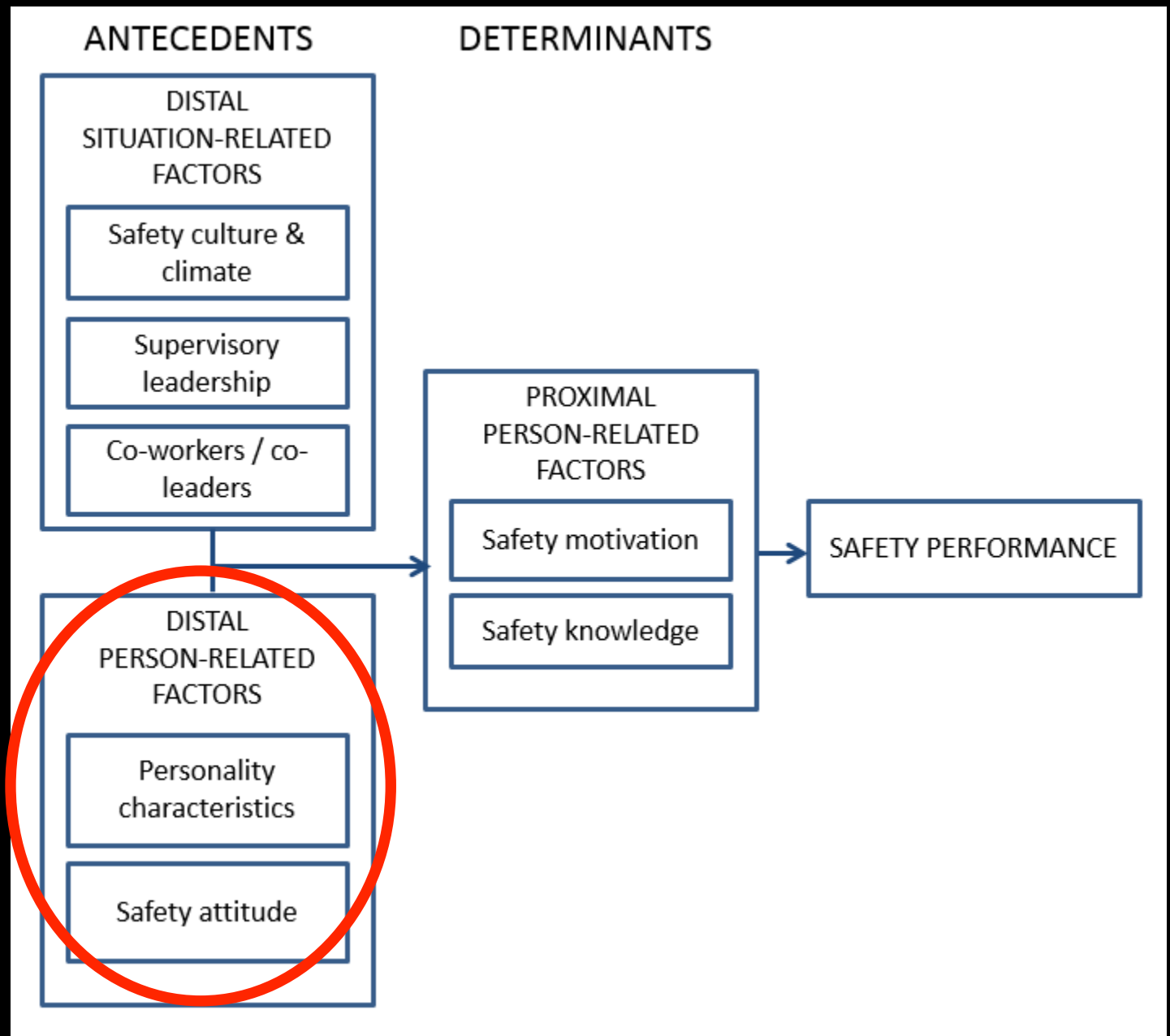
(Schein, p. 223).
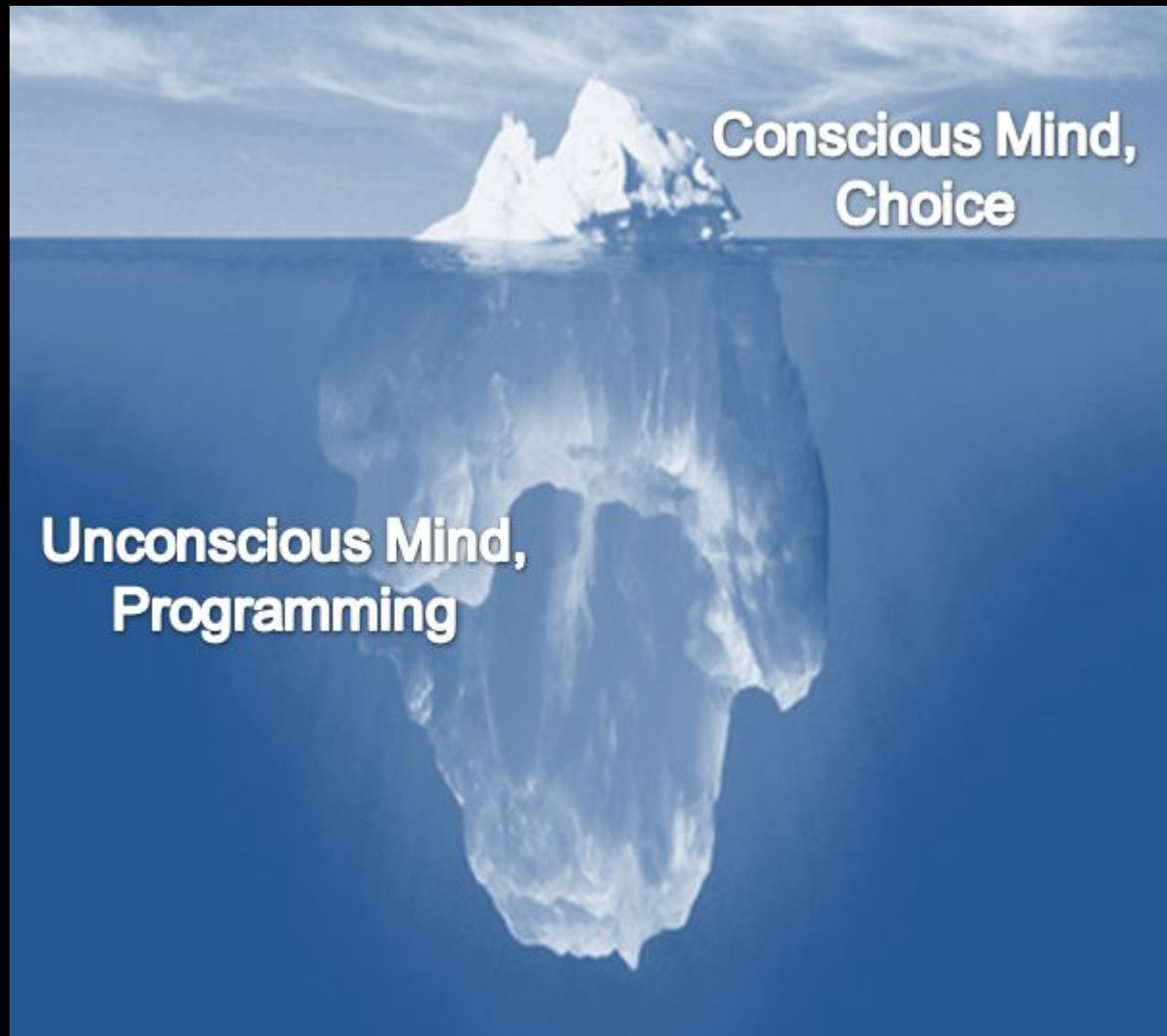
So what do we know about safety so far?

- Be at the right place at the right time, with the right people and the right gear, doing the right things.

So what do we know about safety so far?

- Safety as INPUT vs OUTCOME
  - (behaviours vs measures)

- Individual behaviours
  - multi-level variables:
    - Individual
    - Contextual
    - Organizational

Conscious Mind, Choice

Unconscious Mind, Programming

Work Motivation and Work Behaviour Influence Map

Proximal influence   **Distal influence**

Situation strength determines extent to which context exerts influence on causal chain

Person/Env fit: supplementary, complementary, job design

Self-regulation: cognition, goal choice, goal striving

Feedback

Needs:
Self concept
Social identity
Prevention/promo
Comp/related/auto

Personality: FFM, self-efficacy, core self evaluations

Context:
Situational
Cues
- **Environment**
- **Task demands**
- **Social demands**

Intention → Goal selection → Level of aspiration → Attention, effort, behaviour → Individual Behaviour & Organizational Outcomes: Task performance; Organization citizenship behaviour

Values: principles vs. norms

Values: preference and attitudes

Affect and Emotion

Self-regulation: emotion management, emotional intelligence

Feedback

Motivated Behaviour System:

Schema & sensemaking

Mobilize response (authority and patterned)

DM&J
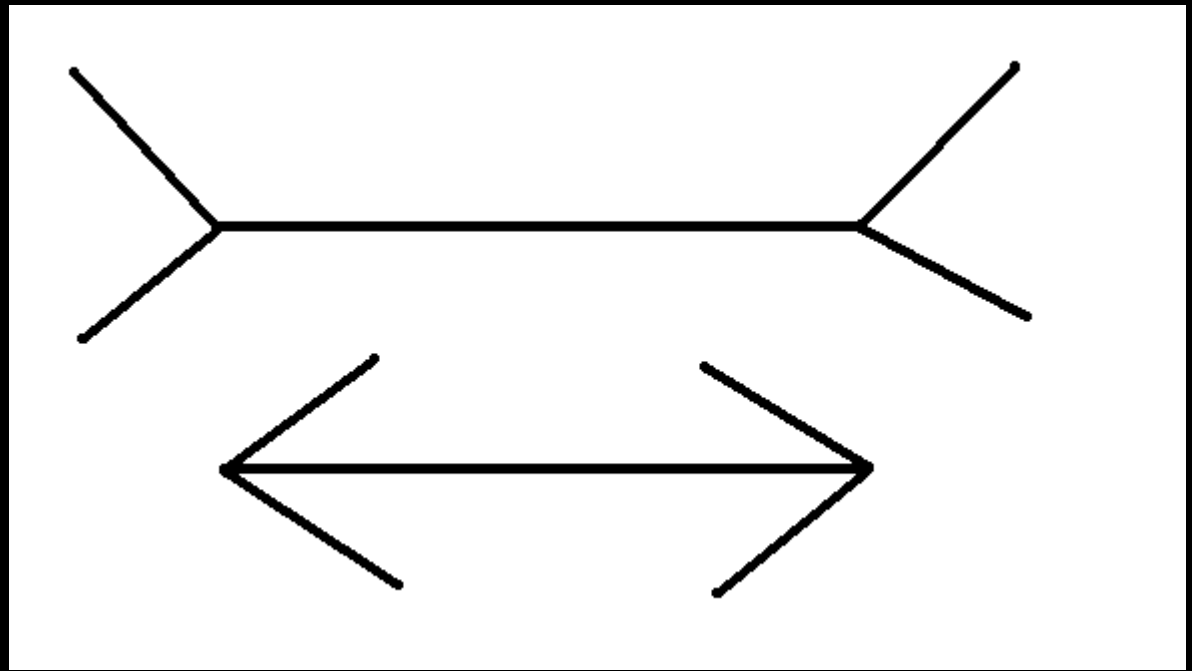
Skills (KSA)

Motivated behaviour or action

17 x 24

Sensemaking vs deciding

17 x 24

Fast & slow

Intuitive & rational

System 1 & system 2

Schema v. Sensemaking

- Schema:
  - Categories (of memory?)

- Sensemaking
  - Ongoing process to categorize ambiguous cues

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Intention → Goal selection → Level of aspiration → Attention, effort, behaviour

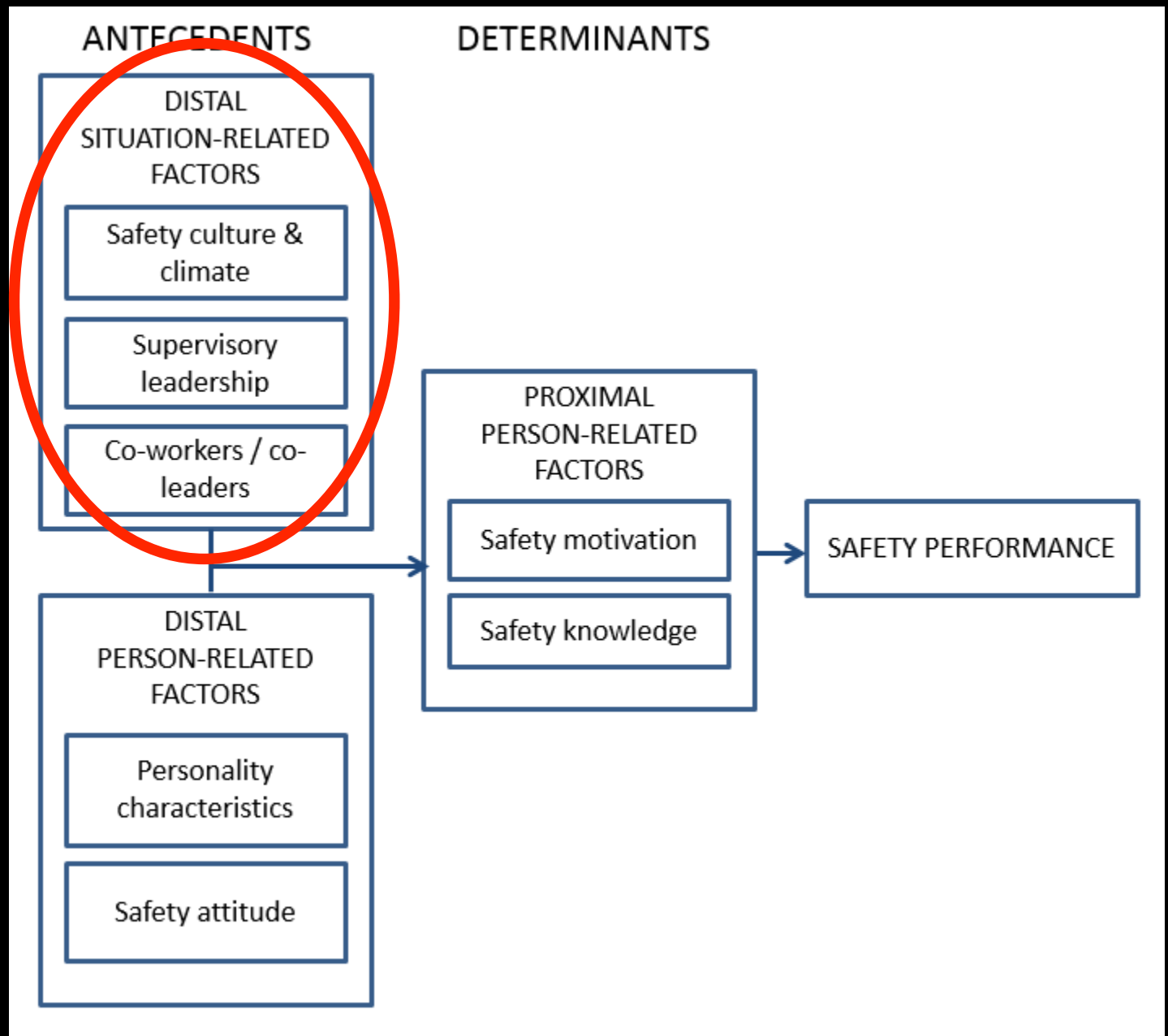**Individual Behaviour & Organizational Outcomes:** Task performance; Organization citizenship behaviour

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Describe your org's Safety Culture as you see it

Safety culture

"Human fallibility, like gravity, weather or terrain, is just another foreseeable hazard..."

"... The issue is not why an error occurred but *how it failed to be corrected.*" (Reason, 1997)

www.pollonthego.com

Survey code: 1662

Empirical Measures of Safety Culture

- Priority of safety (vs production)
- Top down vs participative DM
- Compliance v. Goal v. Process
- Errors: punitive v. Learning
- Communication re safety
- Personal responsibility re safety

1_____2_____3_____4_____5
Low   High

1984, Perrow (OB)

Operationalizing S.Cult

High Reliability Orgs (LaPorte & Roberts, Weick)

High Reliability Orgs

1. preoccupation with failure
2. reluctance to simplify interpretations of problems
3. sensitivity to field level operations
4. commitment to and capabilities for resilience
5. resistance to over-structure systems. (Weick, Sutcliffe, & Obsfeld. 1999)

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HALF FULL

HALF EMPTY

Human Factors & Resilience Engineering

Resilience Engineering

How to cope with complex, underspecified & (partly) unpredictable work? (Hollnagel, 2007)

Eliminate risk
Constrain perf.
"what not to do wrong"

Sacrifice efficiency (time, output)
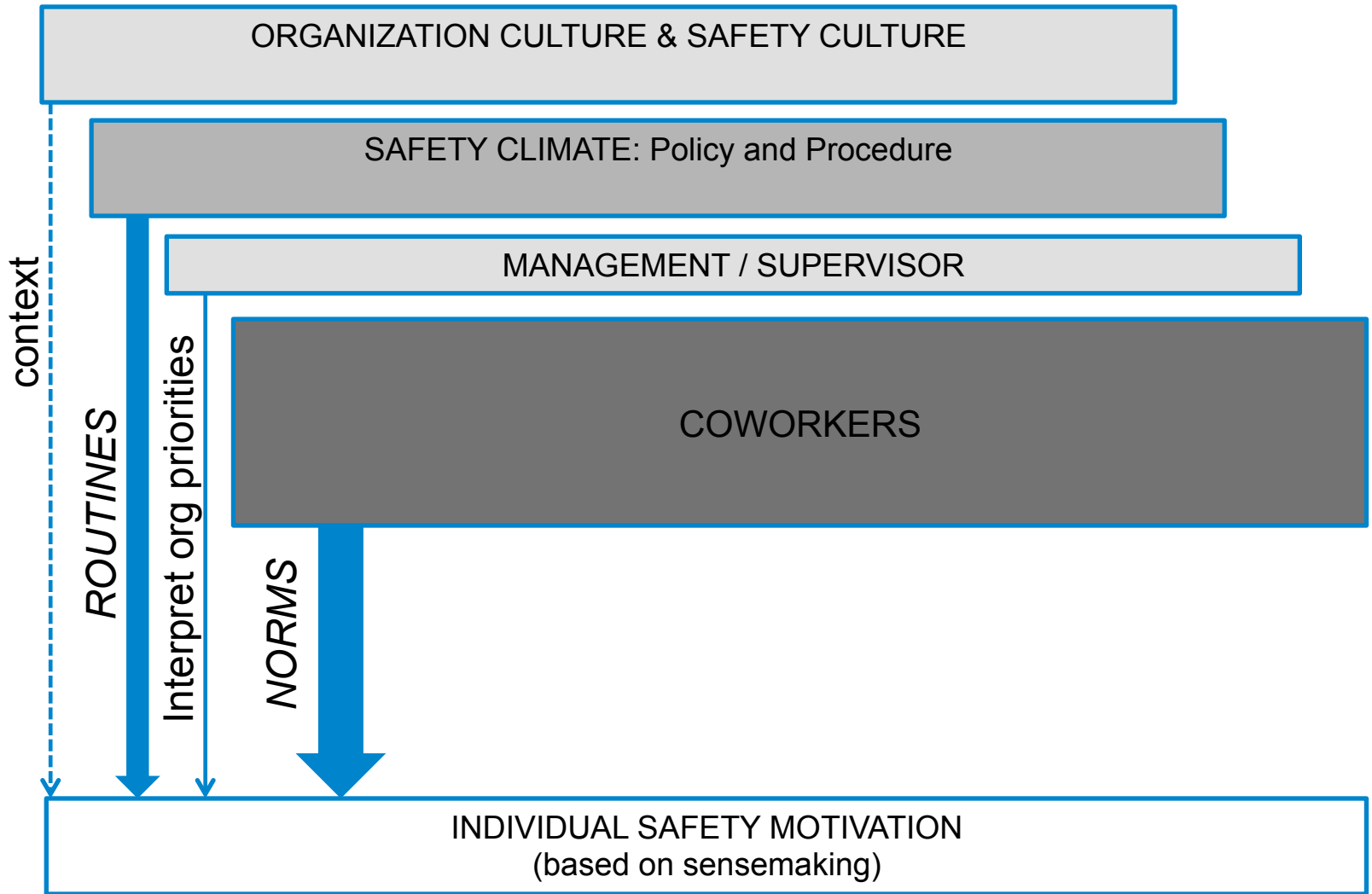Build adaptability
"what can we do right"
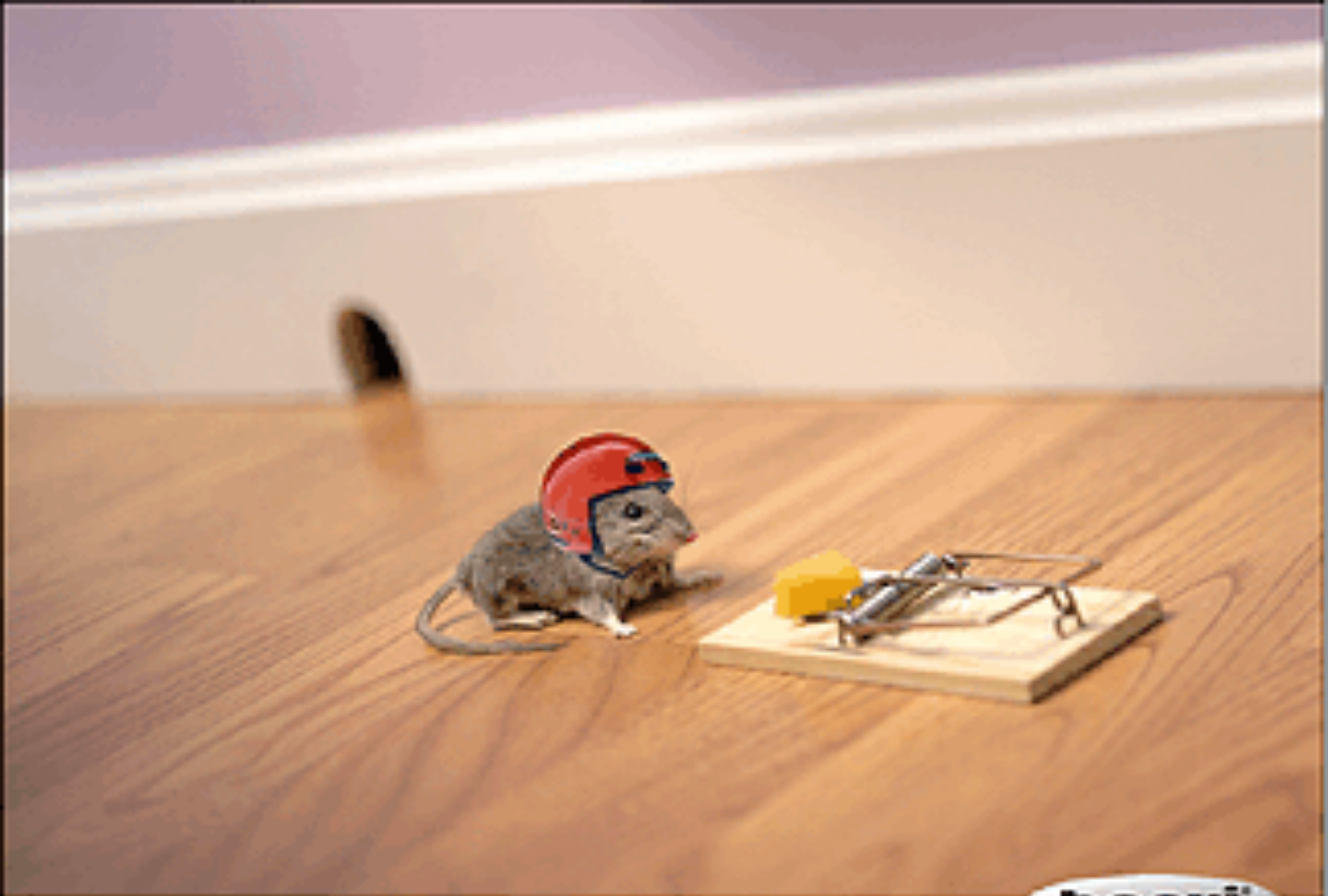
Resilience Engineering

1. Past results don't predict the future

2. Continually question risk exposure and safety systems

3. Look for opposing perspectives

4. Invest in safety & resilience

S.Cult: key findings

1. Org accident transcends ind error
2. S.Cult & Institutionalization
3. S.Cult vs S.Climate
4. Correlation is not causation

ORGANIZATION CULTURE & SAFETY CULTURE

SAFETY CLIMATE: Policy and Procedure

MANAGEMENT / SUPERVISOR

COWORKERS

context

ROUTINES

Interpret org priorities

NORMS

INDIVIDUAL SAFETY MOTIVATION
(based on sensemaking)

boeri

it's your head

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Safety Culture: Mngt Levers

- Normal Accident Tx

  1. See beyond operator error
  2. Reduce complexity
  3. Reduce coupling – add slack

Normal **Accidents**

Living with High-Risk Technologies

Charles **Perrow**

Safety Culture: Mngt Levers

- High Reliability Orgs
  4. Focus on failure and boundaries
  5. Focus on front line sensemaking
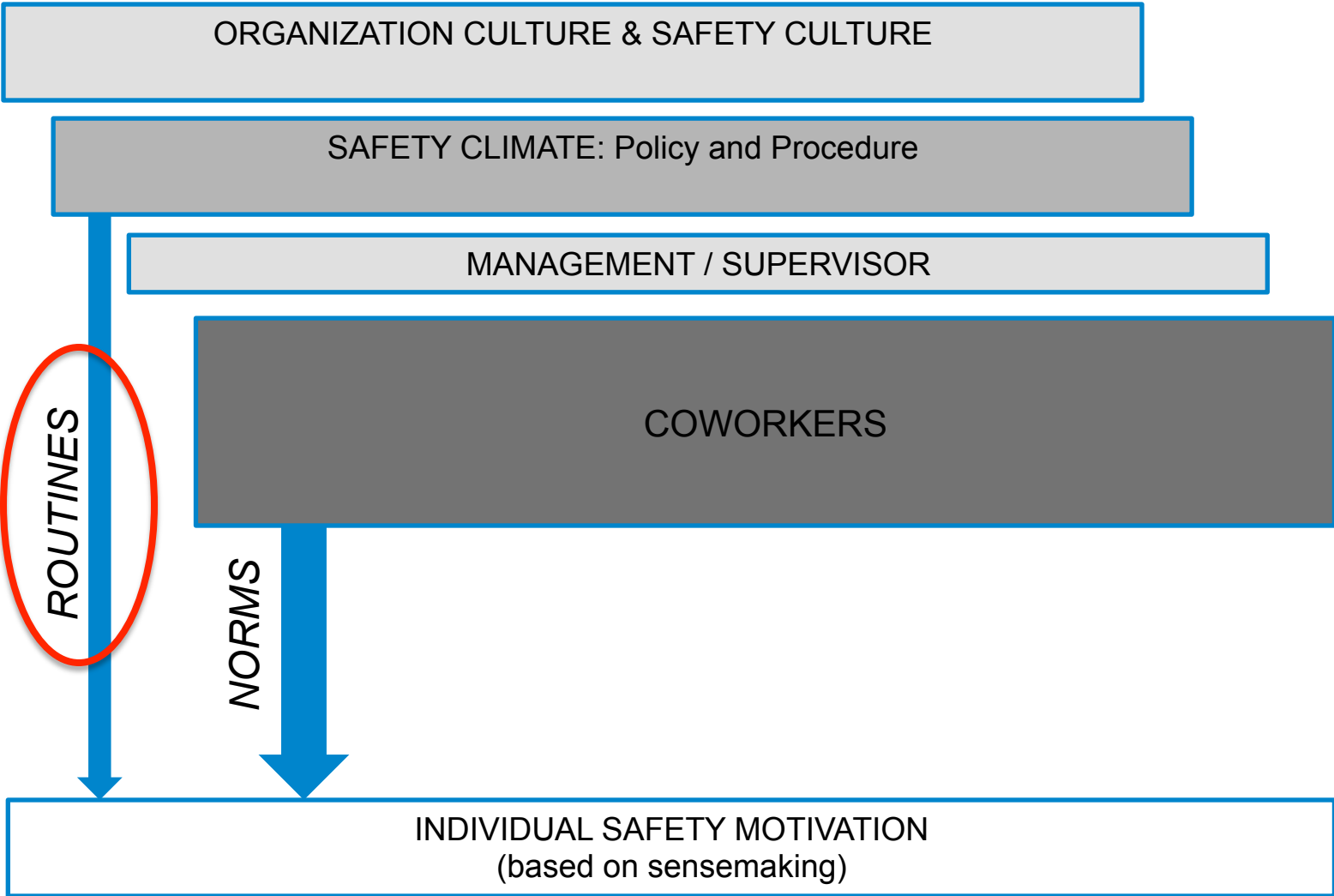 6. Avoid simplification of problems

Safety Culture: Mngt Levers

- Resilience Engineering
  7. Focus on doing things right
  8. Accept trade offs
  9. Understand history does not predict future

"culture controls the manager more than the manager controls culture" (Schein, p. 314).

Routines:

"It is hard to change the attitudes and beliefs of adults by direct methods of persuasion.

But acting and doing, shaped by organizational controls, can lead to thinking and believing" (Reason, 1998).

Routines:

Change ind's values by mandating new routines…

Cognitive Dissonance: inconsistency that results in psychological tension that the individual will act to relieve (Festinger, 1957)

ORGANIZATION CULTURE & SAFETY CULTURE

SAFETY CLIMATE: Policy and Procedure

ROUTINES

- New routines replace old routines

- Humans as short cut experts

- Humans as seekers of rewards

- Programmed response requires extensive practice/testing

INDIVIDUAL SAFETY MOTIVATION
(based on sensemaking)

Make visible and reward desired behaviours

Self Determination Tx

How to build positive social influence:

- New staff 'attachment'
- Leverage social leaders
- Make teams and keep together
- Reward desirable behaviours ie mentor of the year, staff nominated awards
- Encourage peer pressure: 'we rely upon you to uphold our values…'
- Make norms explicit: 'we believe..
- Share history; part of lineage

Safety Culture: Mngt Levers

- Routines
  10. Change values by imposing routine
  11. Train, test and measure routines

- Social influence
  12. Foster social 'attachment'
  13. Make values part of language
  14. Create real teams

What is a real team?

- Defined roles
- Leader
- Tested
- Have history
- Real knowledge of co-w abilities
- Real knowledge of combined abilities

Psuedo-teams

- Strong v. weak
- 'fallacy of social redundancy'

Motivated Behaviour System:

Schema & sensemaking

Mobilize response (authority and patterned)

DM&J

Skills (KSA)

Motivated behaviour or action

Safety Culture: Mngt Levers

- Structure ambiguity:
  15. Risk tolerance (espoused v. implied)
  16. Test at boundaries & failure
  17. Clear expectations
  18. Leads as field supervisors
  19. Provide authority to respond

Safety Culture: Mngt Levers

- Management functions

  20. What gets attention, is measured or controlled (and what does *not* get attention and is therefore condoned or unimportant)

  21. Reward and status allocation (noting potential conflict between espoused rewards and actual or political rewards)

  22. Hiring as culture replication

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References / further reading

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Weick, K. E., and Roberts, K. "Collective mind in organizations: Heedful interrelating on flight decks." *Administrative science quarterly* (1993): 357-381.

Managing Risk

Systems Planning for Outdoor Adventure Programs

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Direct Bearing Incorporated

Book info:
TheManagingRiskBook.com
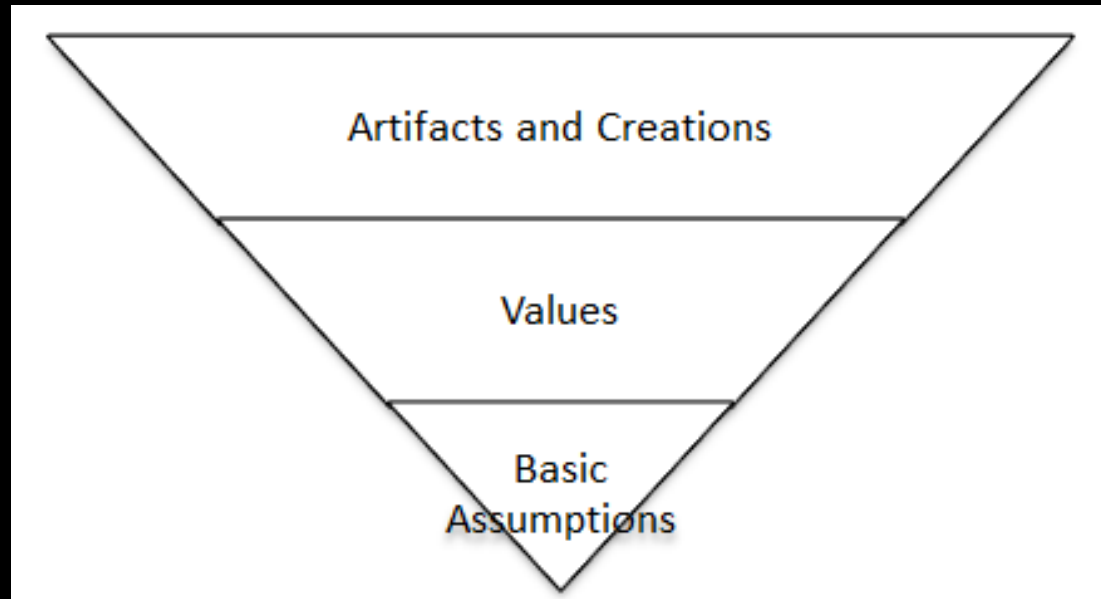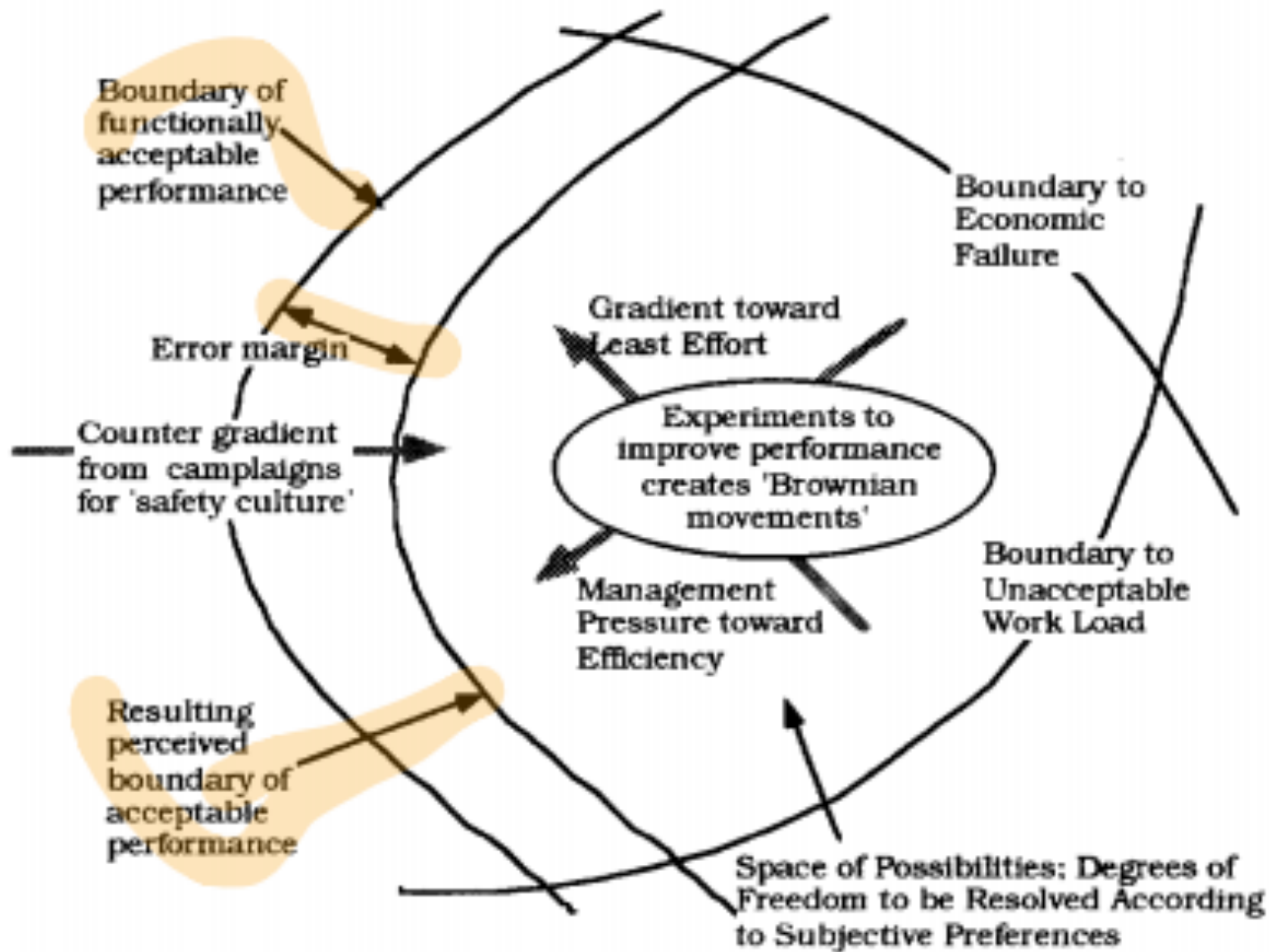
Adventure
Risk Report
AdventureRiskReport.blogspot.com

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Schein's culture

"learned product of group experience"

(Schein, 1985)

Artifacts and Creations

Values

Basic Assumptions

Boundary of functionally acceptable performance

Boundary to Economic Failure

Error margin

Gradient toward Least Effort

Counter gradient from camplaigns for 'safety culture'

Experiments to improve performance creates 'Brownian movements'

Boundary to Unacceptable Work Load

Management Pressure toward Efficiency

Resulting perceived boundary of acceptable performance

Space of Possibilities: Degrees of Freedom to be Resolved According to Subjective Preferences

Resilience Engineering