



Training to Failure and Other Unlikely and Highly Effective Training Strategies

AORE 2015

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**Managing
Risk**

Systems Planning
for Outdoor
Adventure
Programs



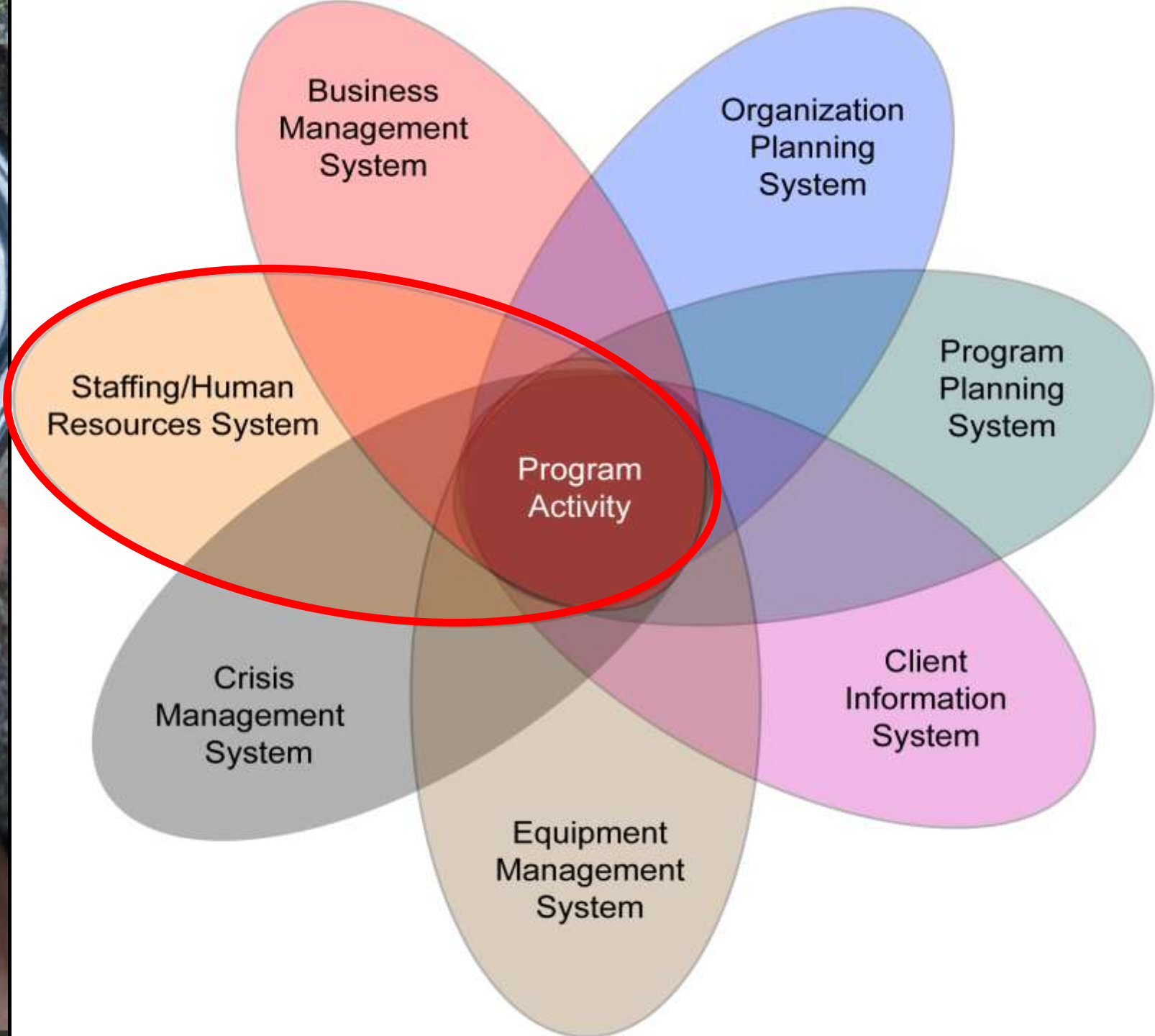
Agenda

1. Schema and sensemaking
2. Motivated behaviour model
3. Training to non normal and failure



Bottom line:

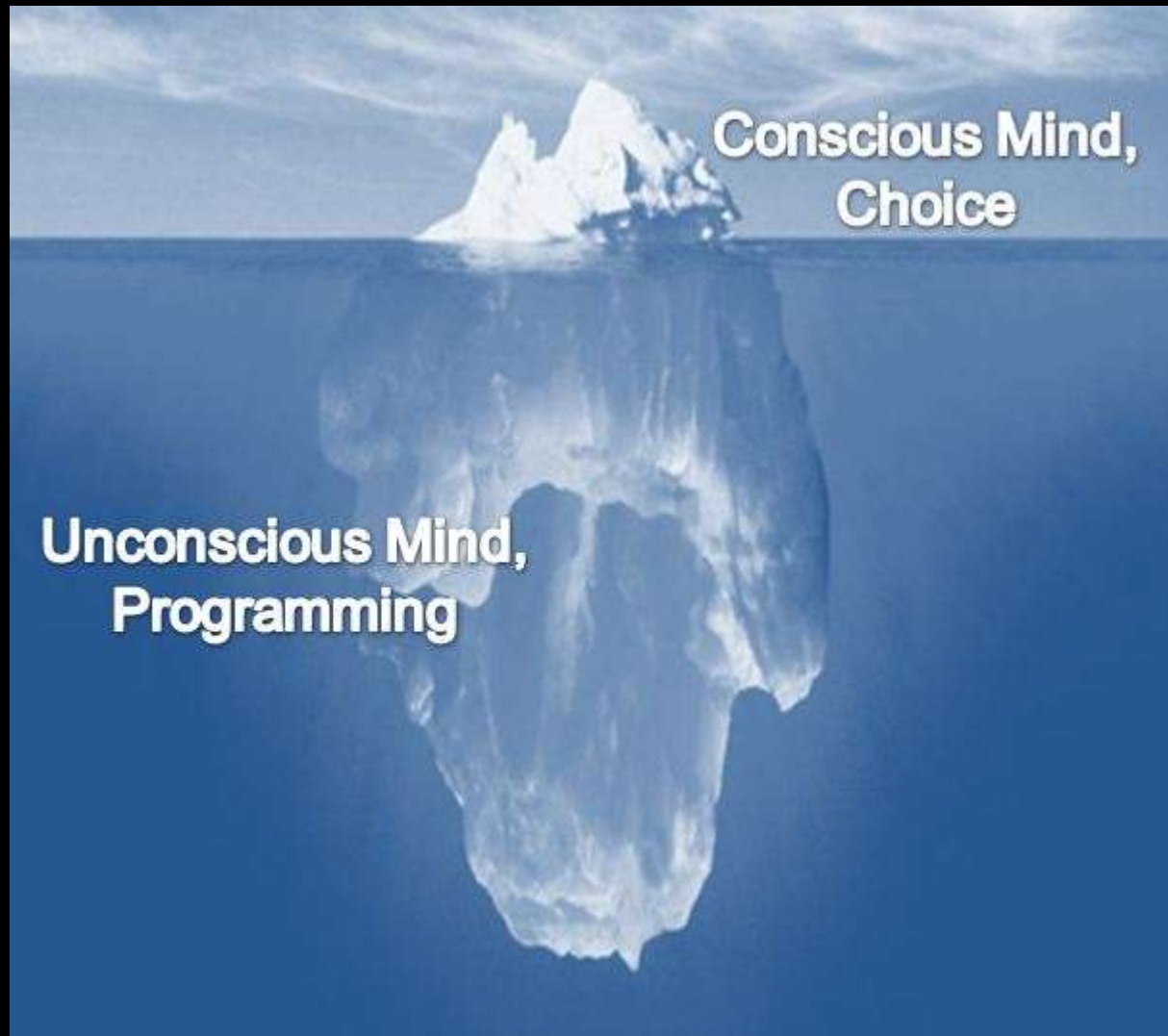
- Spending training time in 'normal' in no way prepares one for non-normal
- Meaningful interaction with inherent risk defines non normal and builds coping skills at the boundaries
- Safe Failure needs to replace Fail Safe



Question:

- Do you teach decision making?
How?









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Schema

Using what I
already know to
help me
understand new
information

I know
alligators live
in swamps.

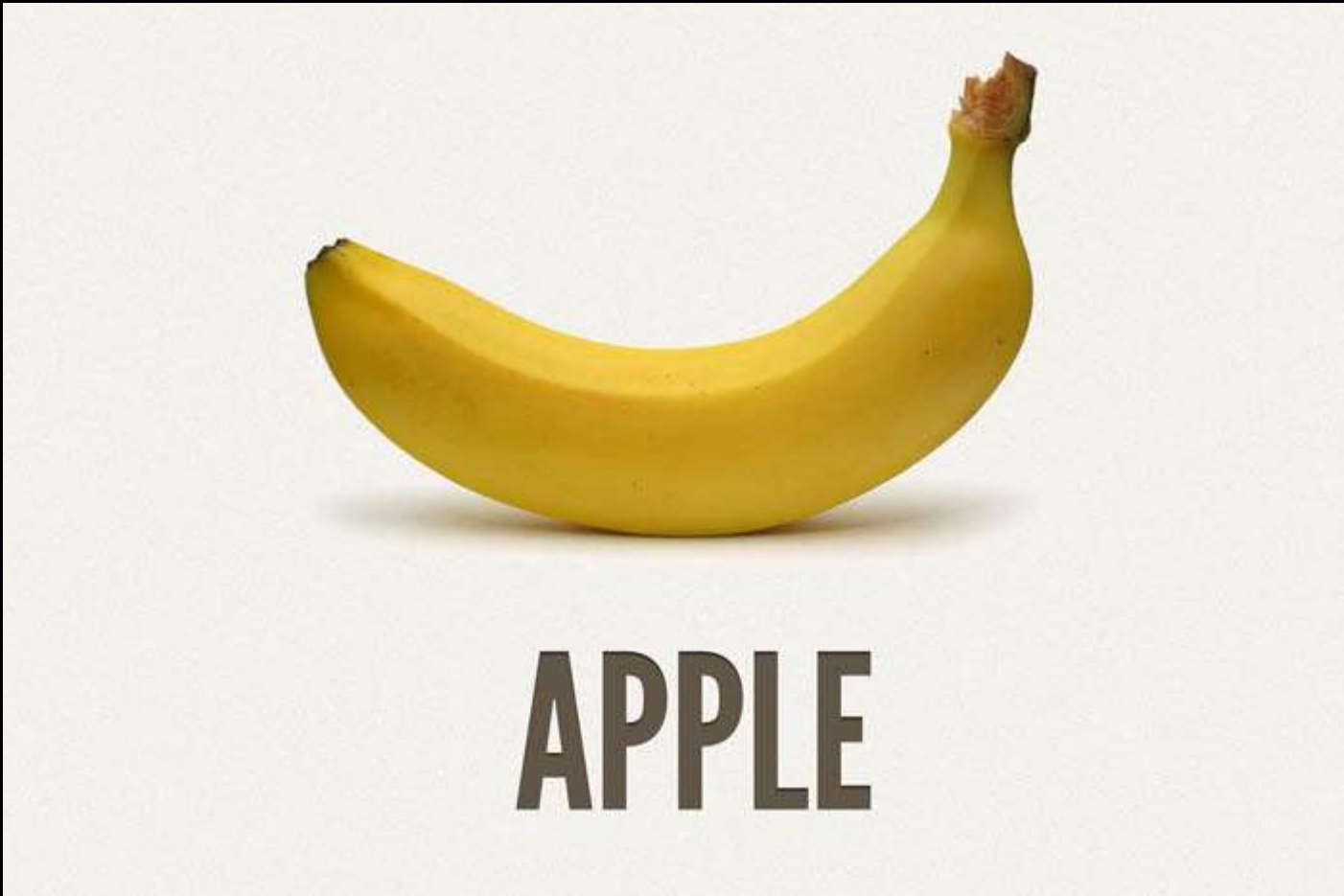


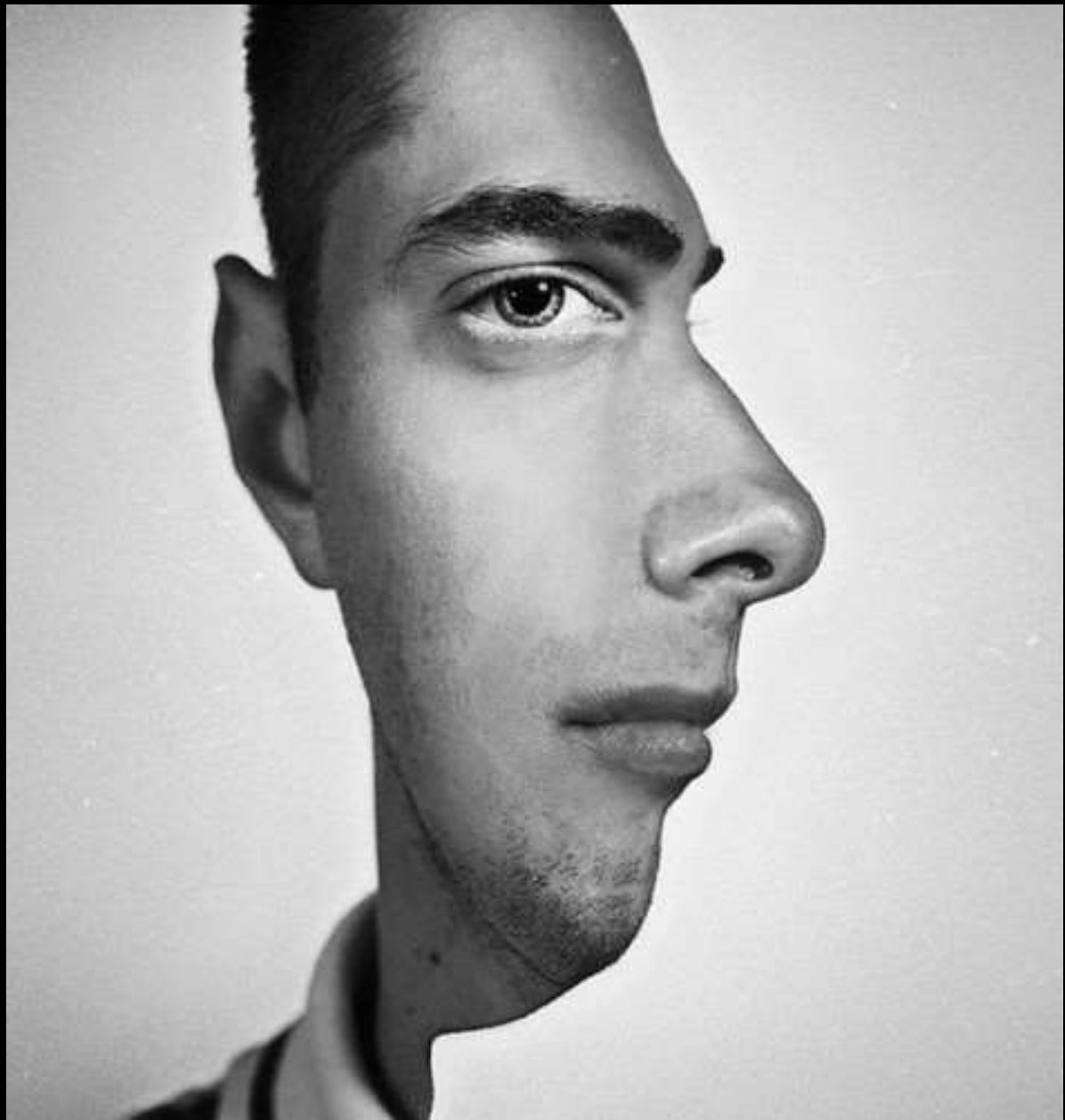


Schema

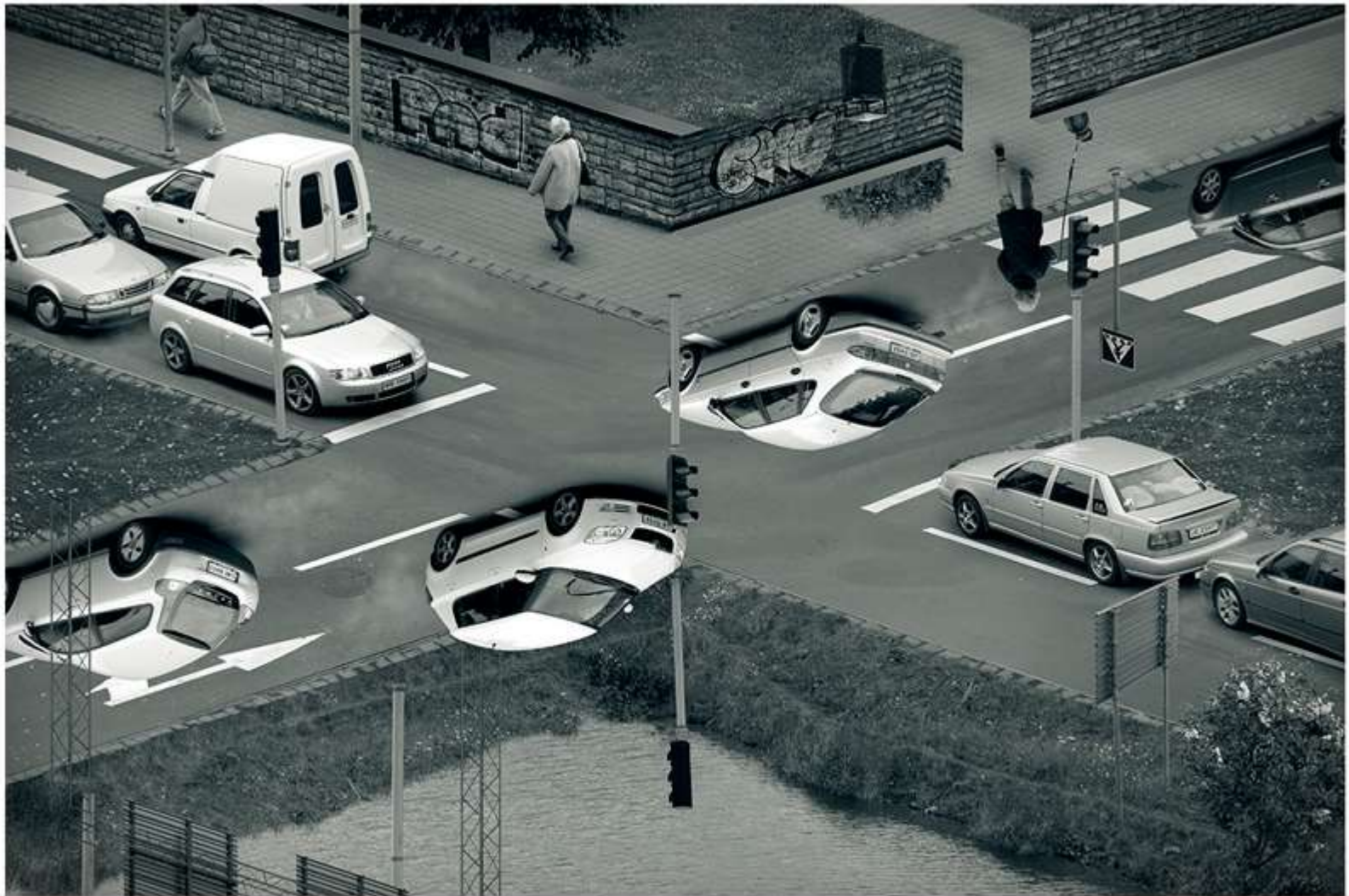
- template for recognizing a particular class of relevant environmental threats or opportunities







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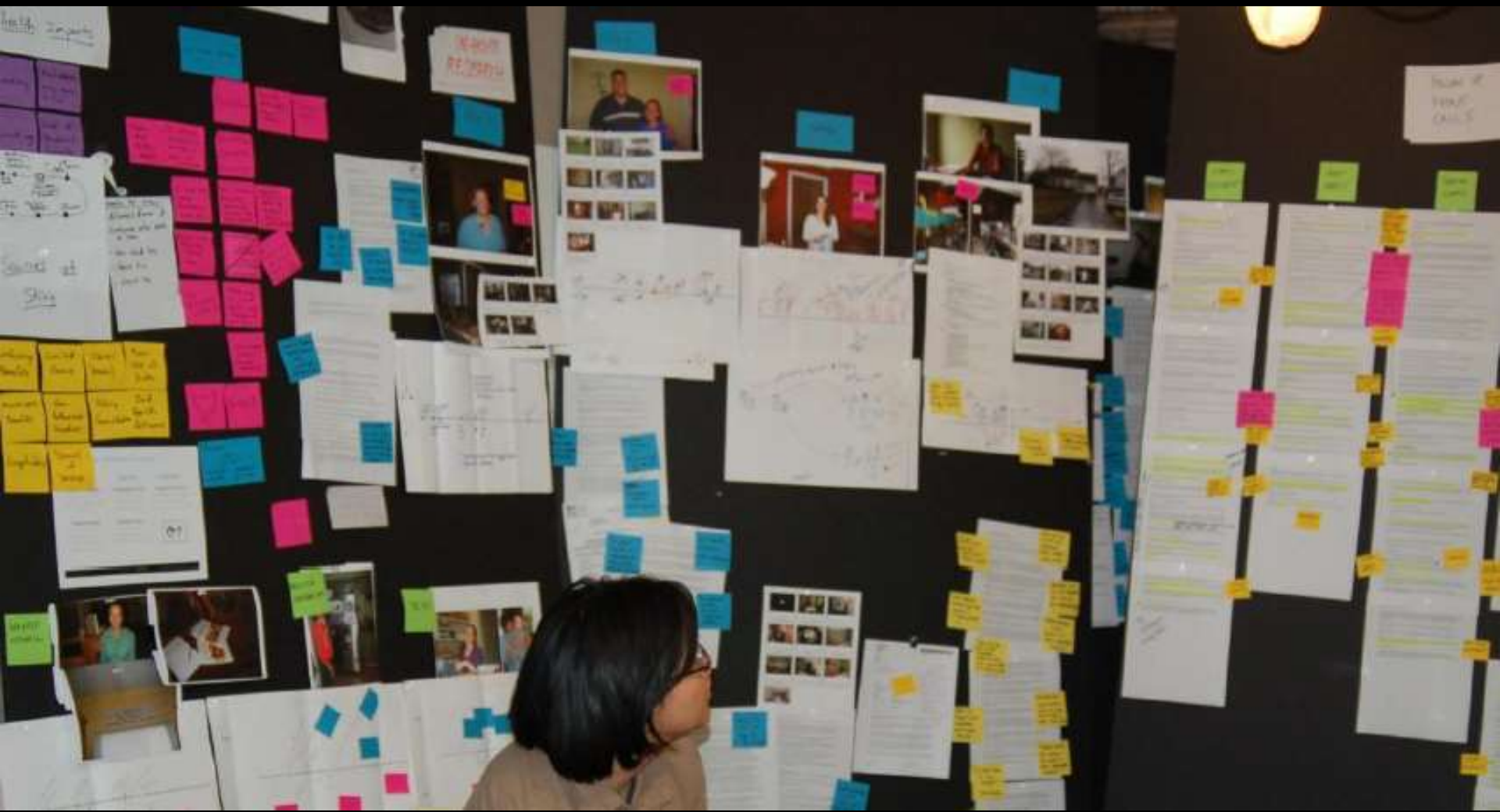
Schema v. Sensemaking

- Schema:
 - Categories (of memory?)
- Sensemaking
 - Ongoing process to categorize ambiguous cues















Agenda

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2. Motivated behaviour model
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Motivated Behaviour Model:

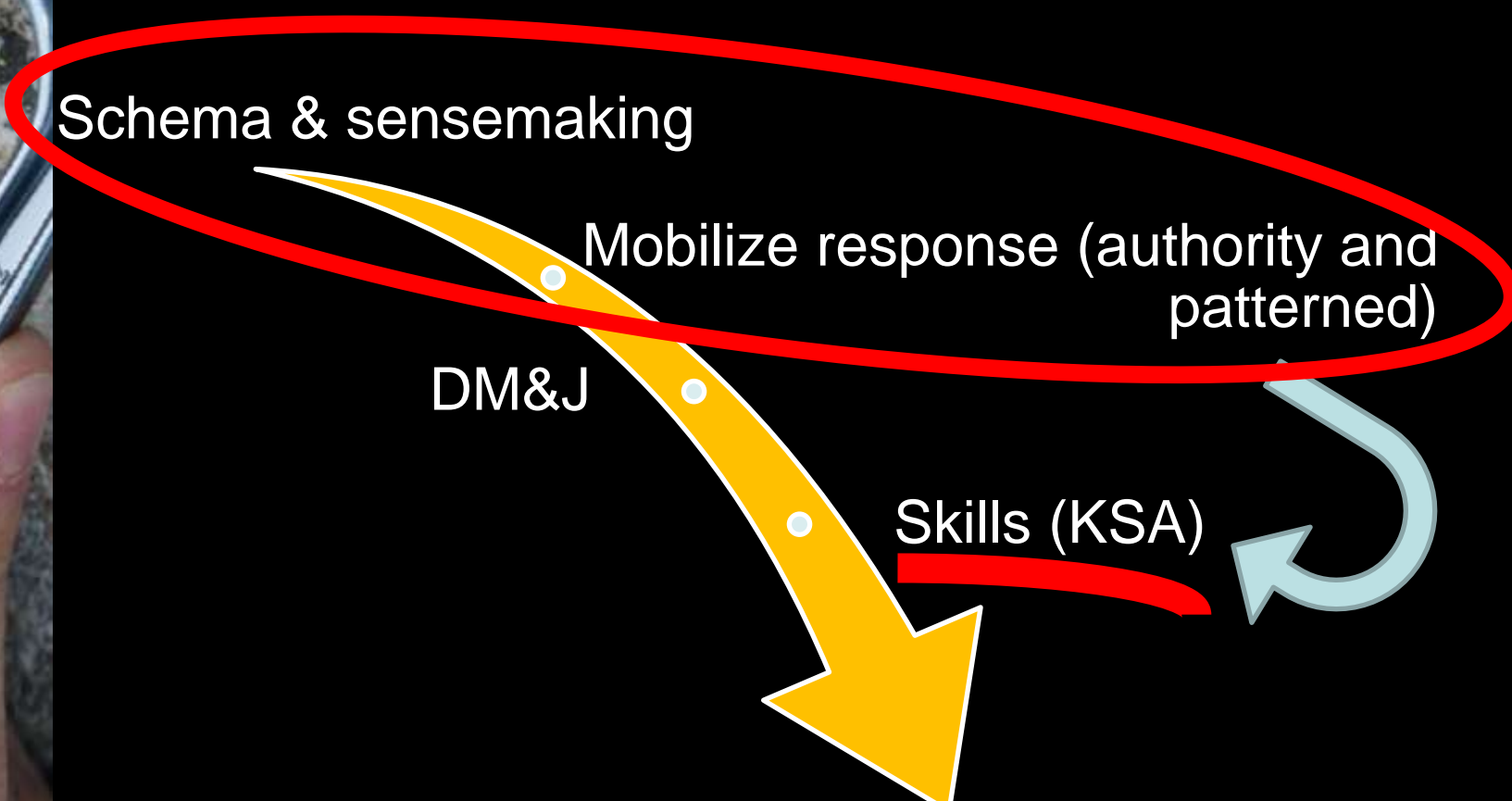
Schema & sensemaking

Mobilize response (authority and patterned)

DM&J

Skills (KSA)

Motivated behaviour or action





Can you find the
the mistake?

1 2 3 4 5 6 7 8 9

Motivated Behaviour Model:

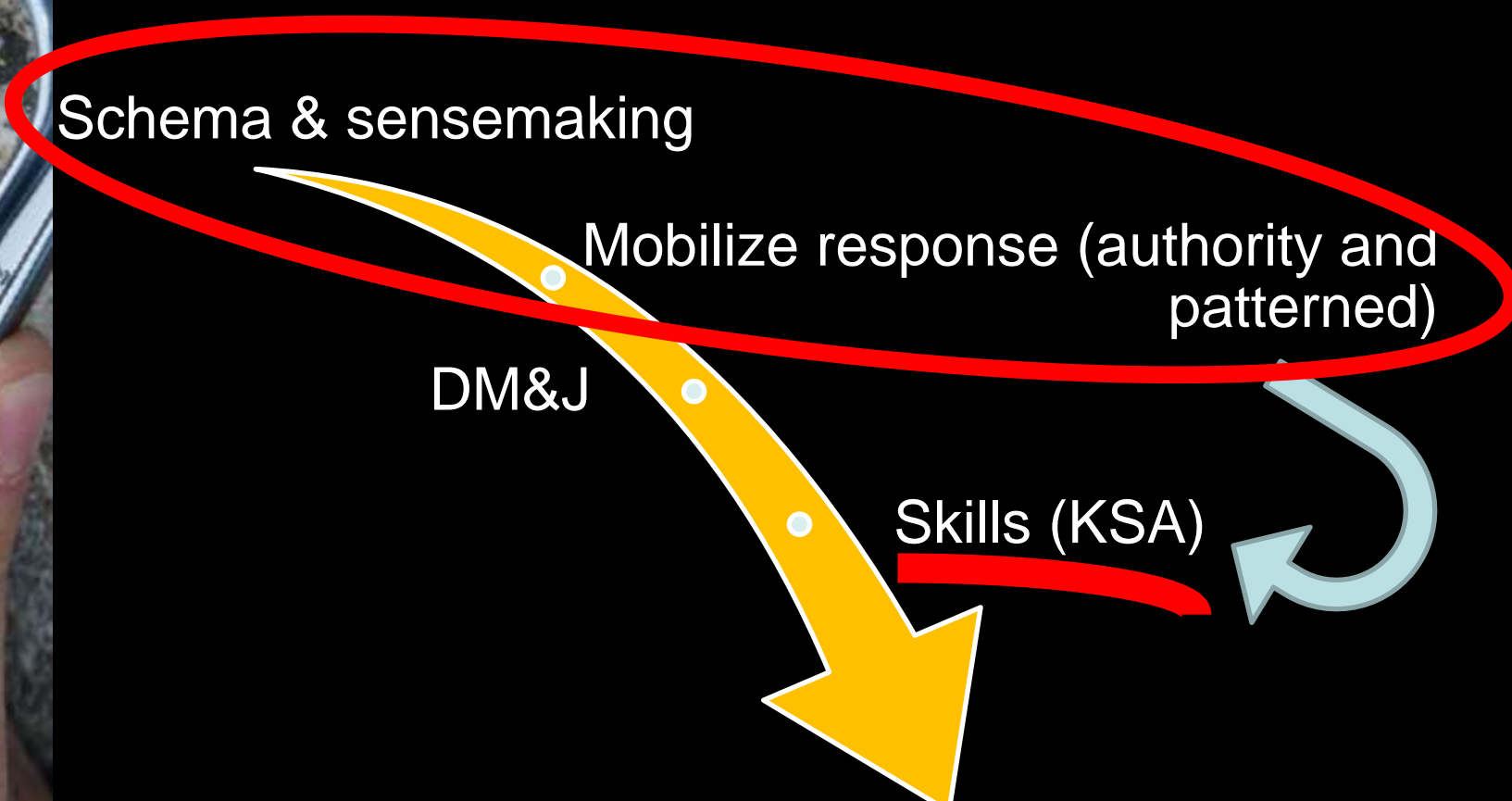
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“Human error is a consequence,
not a cause.”

Reason (1997)

...decision making as “continuous
control task”

Rasmussen (1997)

Question:

- Do you teach decision making?
How?
- Do you teach how to fail?





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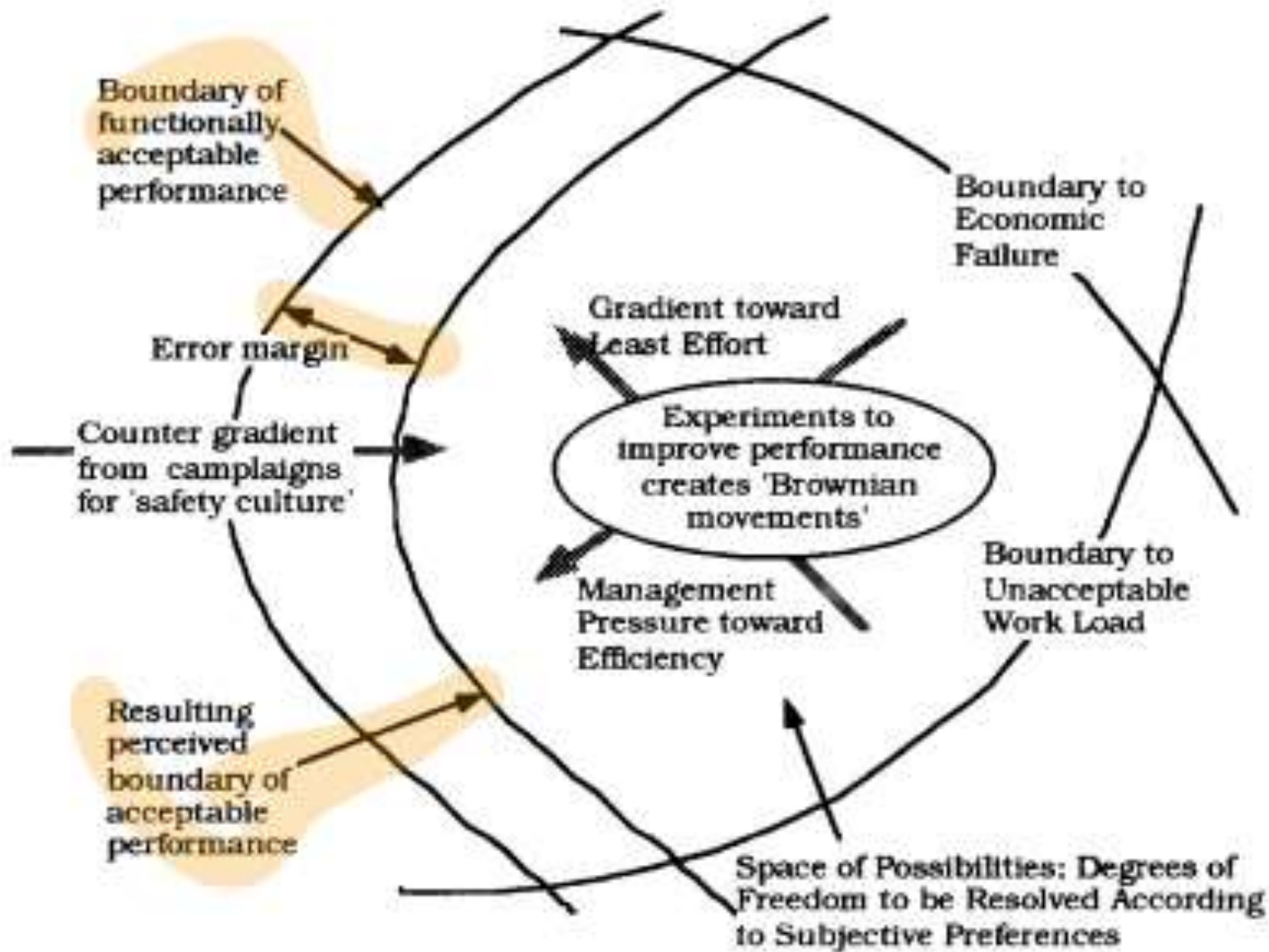




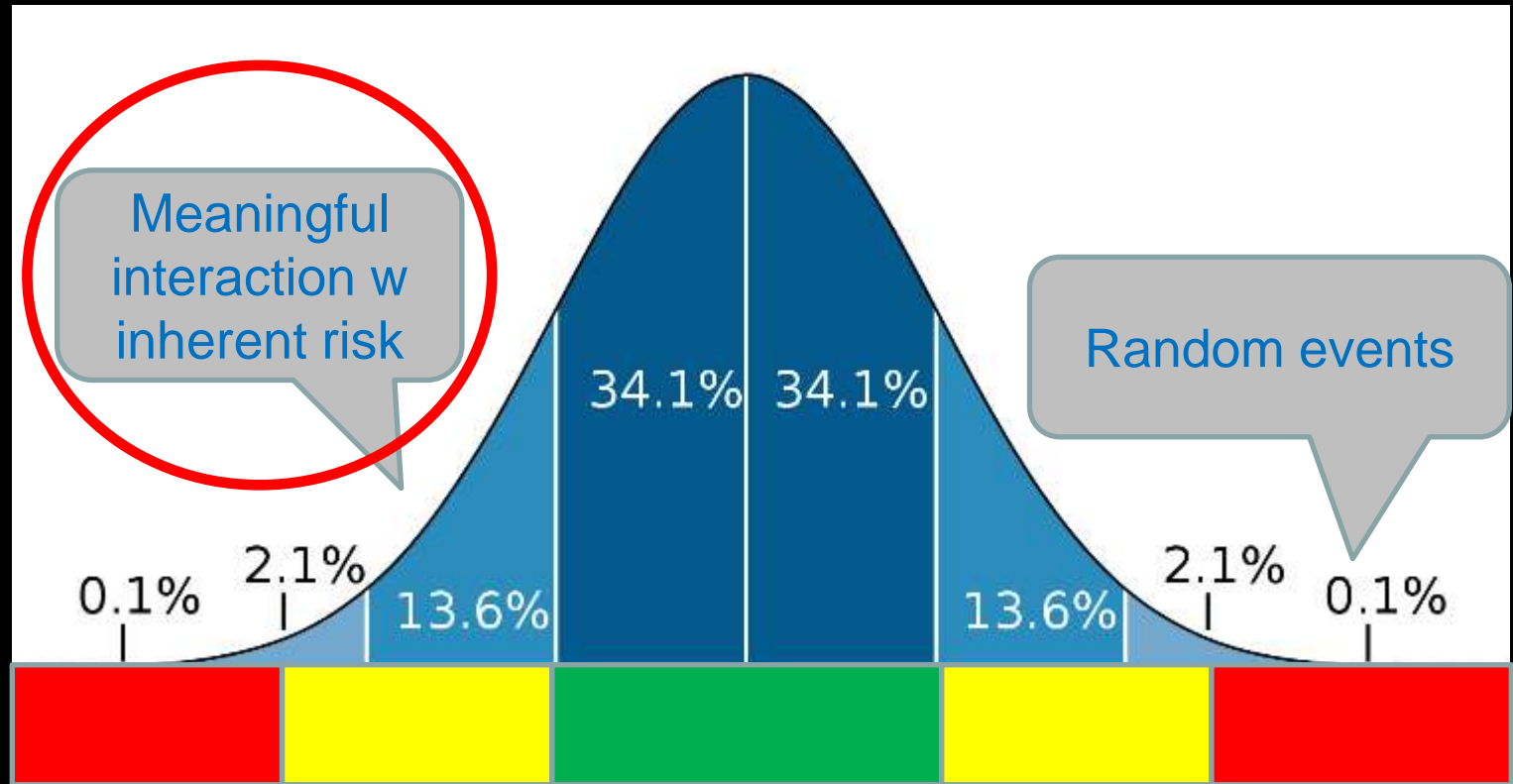
“...rather than striving to control behaviour by *fighting deviation*...

Control behaviour by *making the boundaries explicit and known* and by giving opportunities to develop *coping skills at boundaries.*”

Rasmussen (1997)



Normal vs Non Normal





Training for critical events

1. Tech. skill competence
 - Metered progression
2. Peer leadership
 - Coached exp.
3. Understand normal
 - Normal
 - Non Normal
4. Respond to non normal
 - Decision making
 - Sensemaking





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Training for critical events

- Meaningful interaction w inherent risks
- Train to failure
- Define boundaries

← Non Normal

- Sensemaking









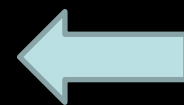
Accelerated Training

- 'What's going on here?'
- Meaning over deciding

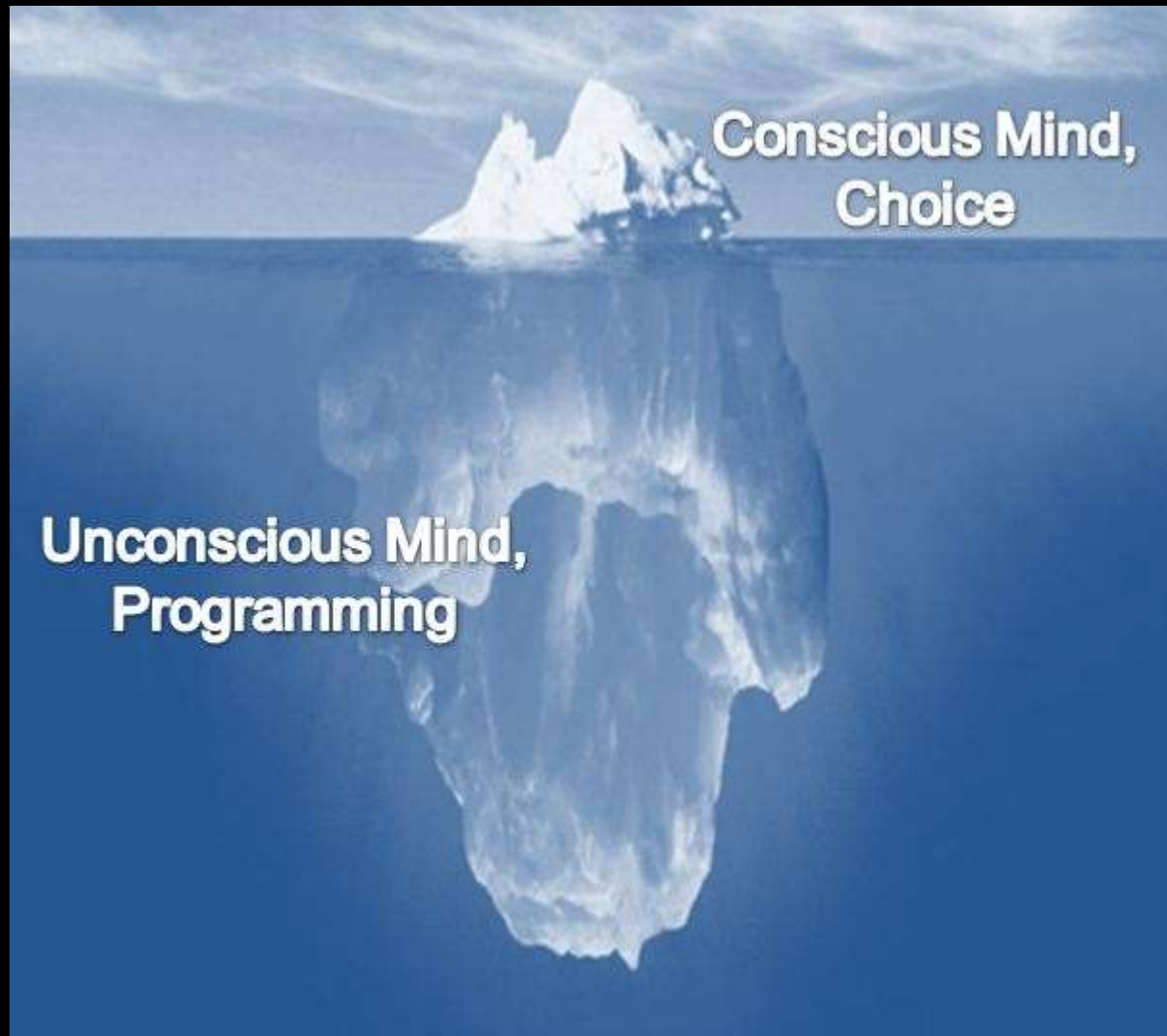
- Non Normal

Coping skills at the boundaries;

Schema selection



Sensemaking















Accelerated Training

- Situational awareness
- Recognize patterns
- Defined roles
 - Non Normal
- Empowerment to act

← Sensemaking

Motivated Behaviour Model:

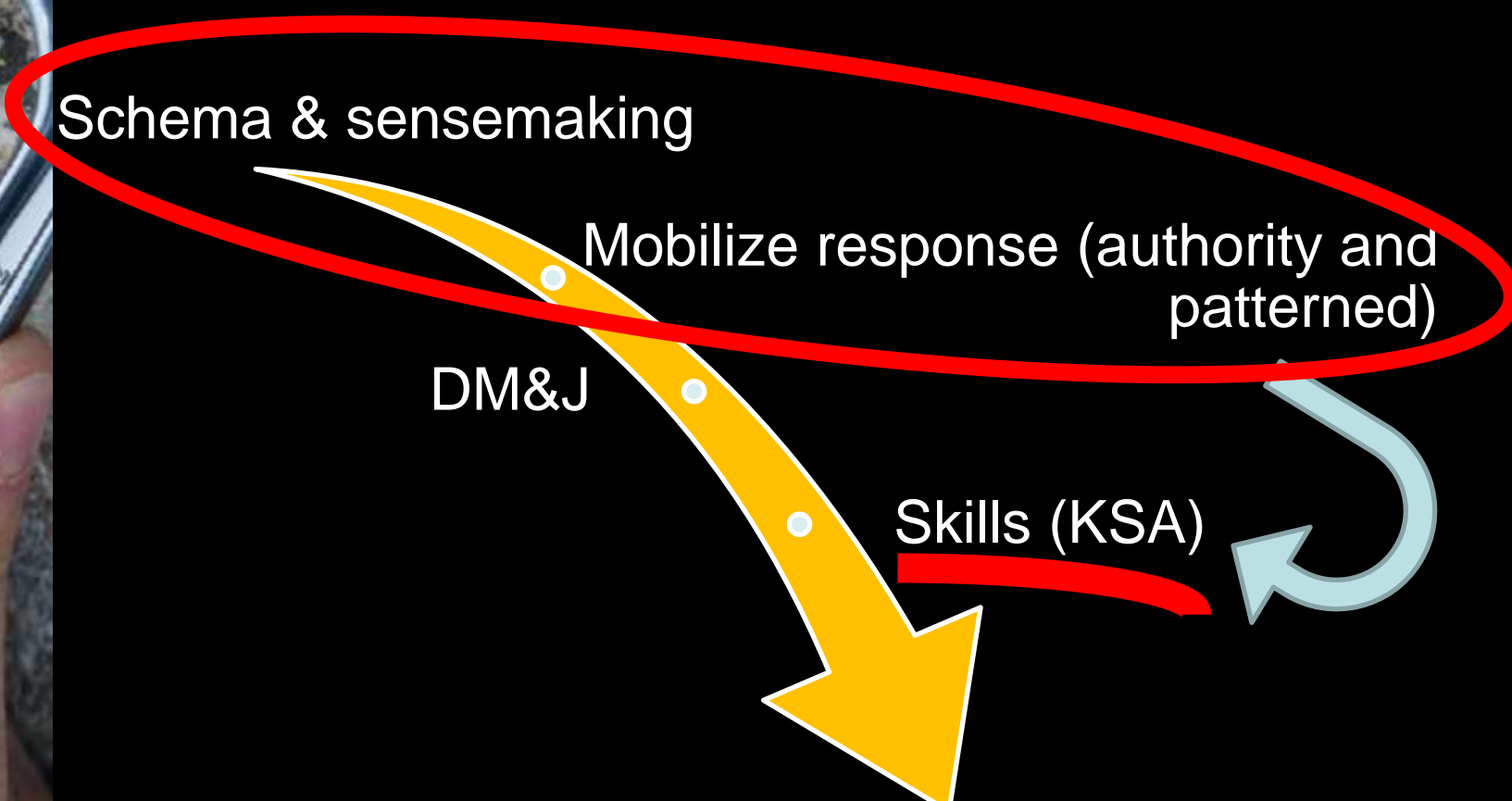
Schema & sensemaking

Mobilize response (authority and patterned)

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Skills (KSA)

Motivated behaviour or action



Safe failure v. fail safe





Ends vs Means

- Outcomes and boundaries
 - Critical events; failure
1. Identify program specific inherent risks: provide meaningful interaction
 2. Make boundaries clear; build coping skills
 3. Case study org IRF's



Take away points:

1. multiple schema > a single durable schema
2. Focus on non-normal and boundaries
3. define roles and authority to act
4. Safe failure over fail safe

References / further reading

- 
- A close-up photograph of a hand holding a silver metal carabiner against a rock face. The carabiner is a D-shaped metal hook used in climbing. The hand is visible on the left side, with the thumb and index finger gripping the carabiner. The rock face is a light-colored, textured surface. The carabiner has some text on it, including 'PETZL' and 'MIDIE L'.
- Jackson, J. & Heshka, J. (2010). *Managing Risk, Systems Planning for Outdoor Adventure Programs*, Direct Bearing Inc., Palmer Rapids, ON.
- Kegan, R. (1998) *In Over Our Heads*. Harvard University Press.
- Perrow, C. (1999). *Normal Accidents, Living with high risk technologies*. Princeton University Press, Princeton, N.J.; reprint of 1984 Basic Books.
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- Weick, K. (1988). 'Enacted Sensemaking in Crisis Situations'. *Journal of Management Studies* 25:4

Managing Risk

Systems Planning for Outdoor Adventure Programs



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Book info:

TheManagingRiskBook.com

Adventure
Risk Report

AdventureRiskReport.blogspot.com

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