

HUMAN BE-ING



in

uncertainty

change

disruption

(Robert Koch)

We spend our lives trying to discern
where we end

and the rest of the world begins

We snatch our freeze-frame of life
from the simultaneity of existence

by holding on to illusions

of permanence,

confidence,

and linearity;

of static selves
and lives that unfold in sensical narratives.

All the while, we mistake chance for choice,
our labels and models of things
for the things themselves,

our records for our history.

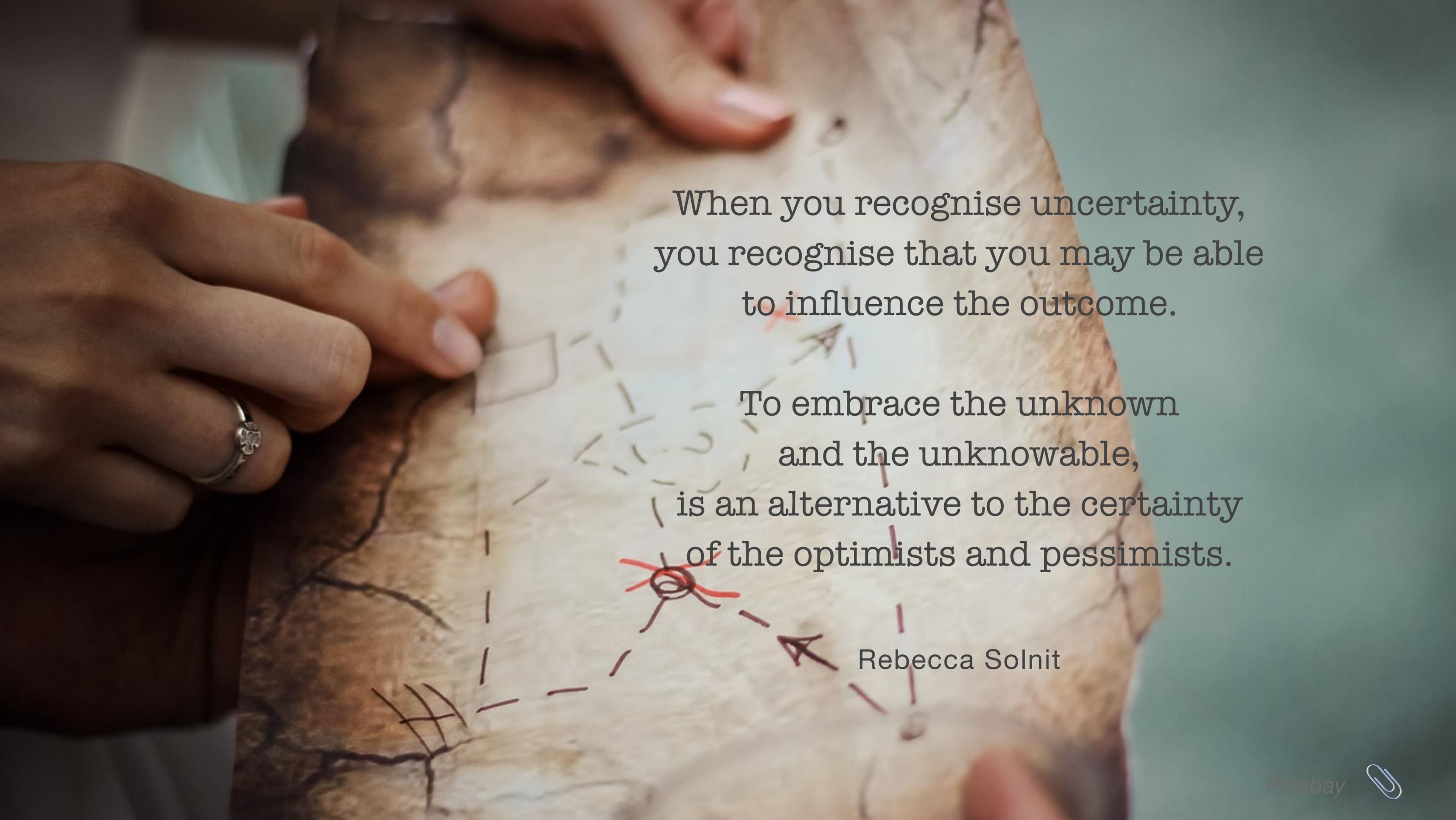
History is not what happened,
but what survives
the shipwrecks of judgement and chance.

Maria Popova



what does it feel like?

“change is the new normal”



When you recognise uncertainty,
you recognise that you may be able
to influence the outcome.

To embrace the unknown
and the unknowable,
is an alternative to the certainty
of the optimists and pessimists.

Rebecca Solnit



How we think about the world
determines how we live in it,
and act in it.



mastery

tools





instruments





being in the world

uncertainty

change

disruption



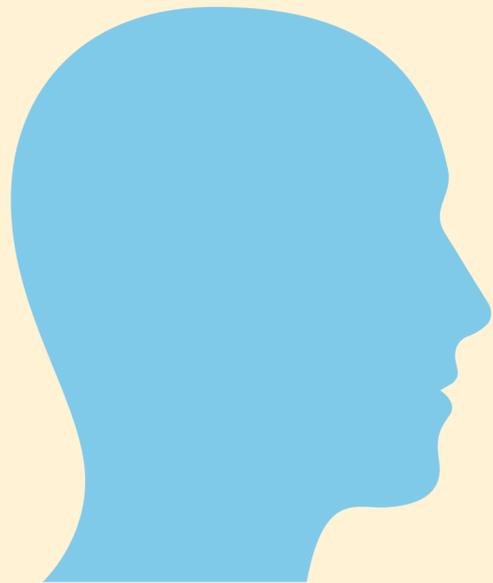
The shape we will find
only when we start to draw -
a mixture of making and looking ...

William Kentridge



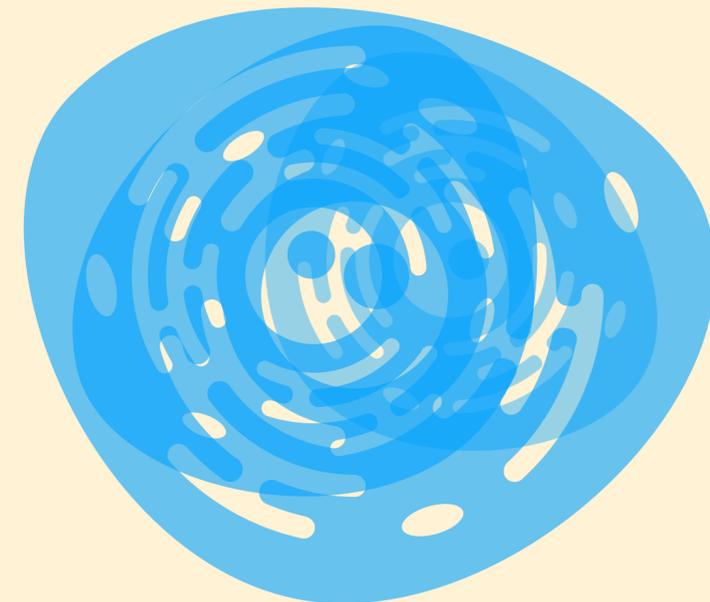
Risk

uncertainty
objectives



Management

causes
controls



When you view the world as a system,
the idea of cause
becomes meaningless,

because there's no way to isolate
an individual cause ...

instead, the world
is a tangled web of influences.

Netflix



PART 1

2 worlds

The world as we have created it
is a process of our thinking.

It cannot be changed
without changing our thinking.

Albert Einstein



rational

goals

control

predict

causal

plans

specify

reduct

experts

case
studies

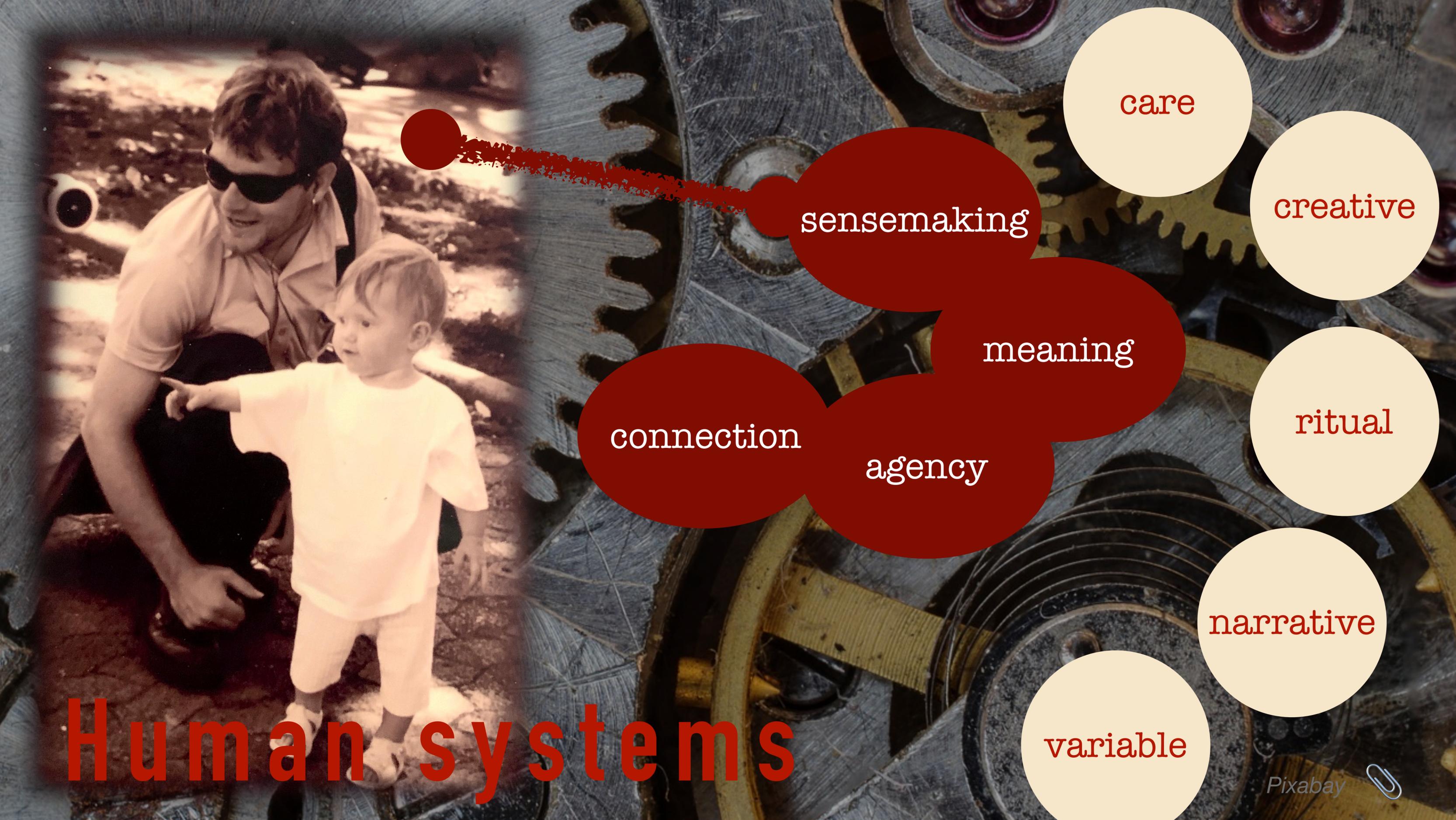
analysis

past

bounded

linear





care

creative

sensemaking

meaning

ritual

connection

agency

narrative

variable

Human systems

What if ...

ordered

deterministic

predictable



messy

fragmented

broken

When we try to pick out anything by itself,
we find it hitched
to everything else in the universe.

John Muir



constantly changing
nonlinear dynamics
sensitive to initial conditions
domains of stability
phase transitions tipping points
fundamentally unpredictable
retrospective coherence
contributors not causes
exaptation / adaptation
influence vs. control

many heterogeneous components
(un)known (un)discoverable interactions
interact through feedback
across scales and levels
open to environment
hubs and levers
nested systems of systems
with distributed control
irreducible
whole vs. sum of the parts

time directionality
path-dependency
carries its history

self-organising

distributed local interactions of autonomous components give rise to global patterns of behaviour

emergence

novel, unexpected higher-level properties not easily predicted from the components

surprises (& failure)
are inevitable

Complex adaptive systems



You're not stuck in traffic,
you are traffic.

Kevin Slavin



The only valid model of a complex system
is the system itself.

Murray Gellman



the

evolutionary

potential of the

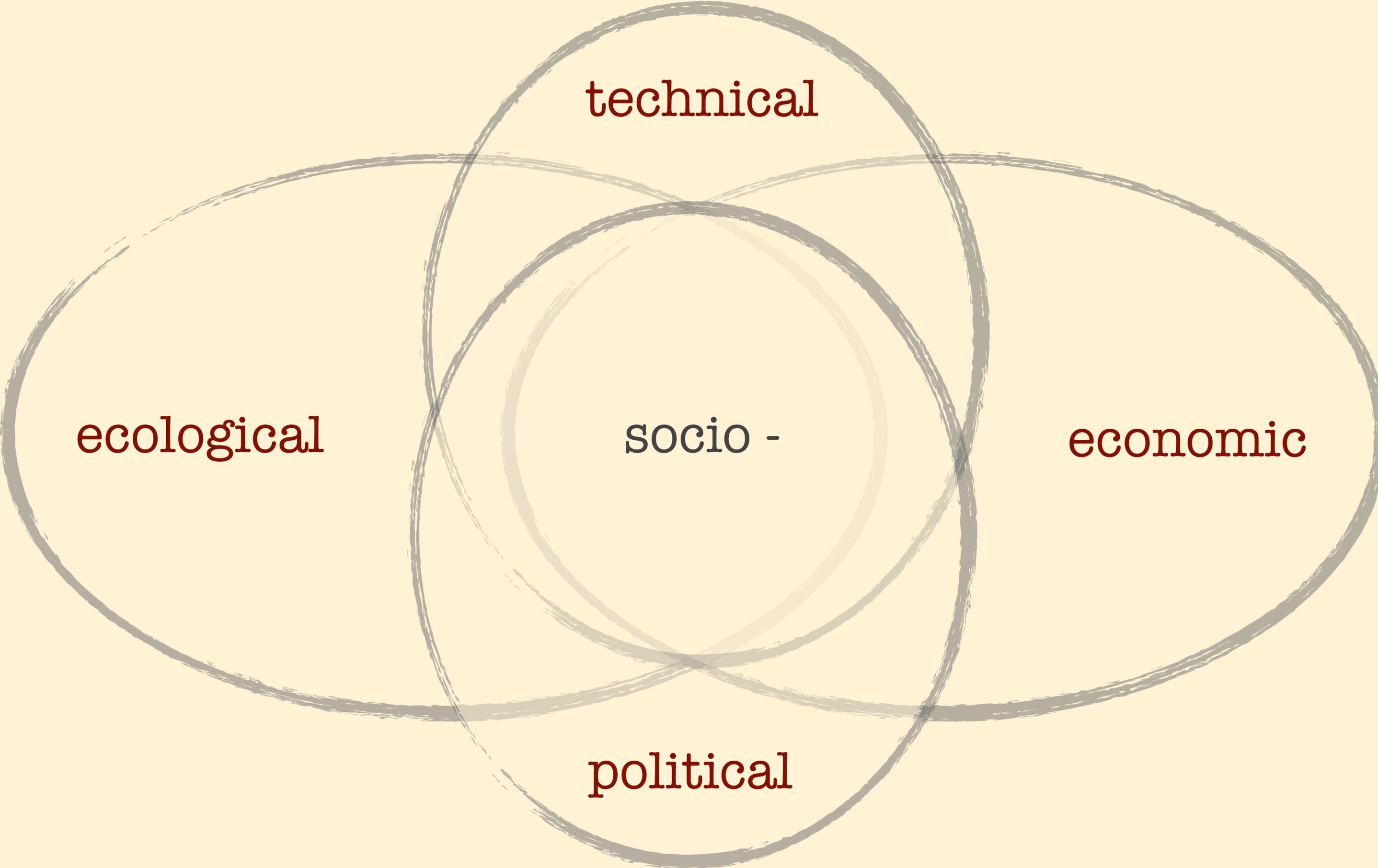
present

Both the dream of omnipotence
and the nightmare of impotence
in a fully knowable
but deterministic world
dissolve with complexity science,

which in many ways represents
an important cultural awakening.

The Sage Handbook of Complexity and Management





technical

ecological

economic

socio -

political

ENGEN

ENGEN
7plus

EDV
E10



M.P.
DURBAN
SOUTH AFRICA
C/T NO. 77
MADE IN CHINA

DAY ABORTION
0670715522

62 US 80
ABORTION
367 155 0833

TREERING
CHEAP PRICE
CALL NOW 4 QUOT
073 4 86 [REDACTED]
THOMAS

8

ecological



political



economic



technical



TREERING
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DURBAN
SOUTH AFRICA

ENGEN

PART 2

resilience

Resilience:
the science of dealing with surprise.

Buzz Holing

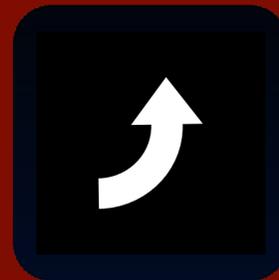


Resilience (a verb)

persist



adapt



transform



Specified vs. General Resilience

Social	Structures Protocols Plans	Thinking Culture Networks	
Technical	Designed Redundant Systems	Smart meters Mobile substations	
	Specified	General	

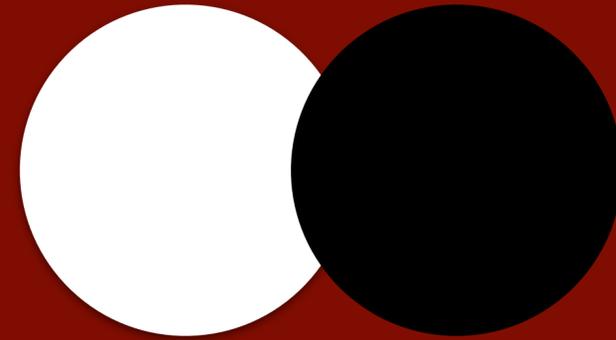


Accidents



Emergent outcome
of various influences
(some discoverable)

human
variability



Root cause:
human error vs.
technical error

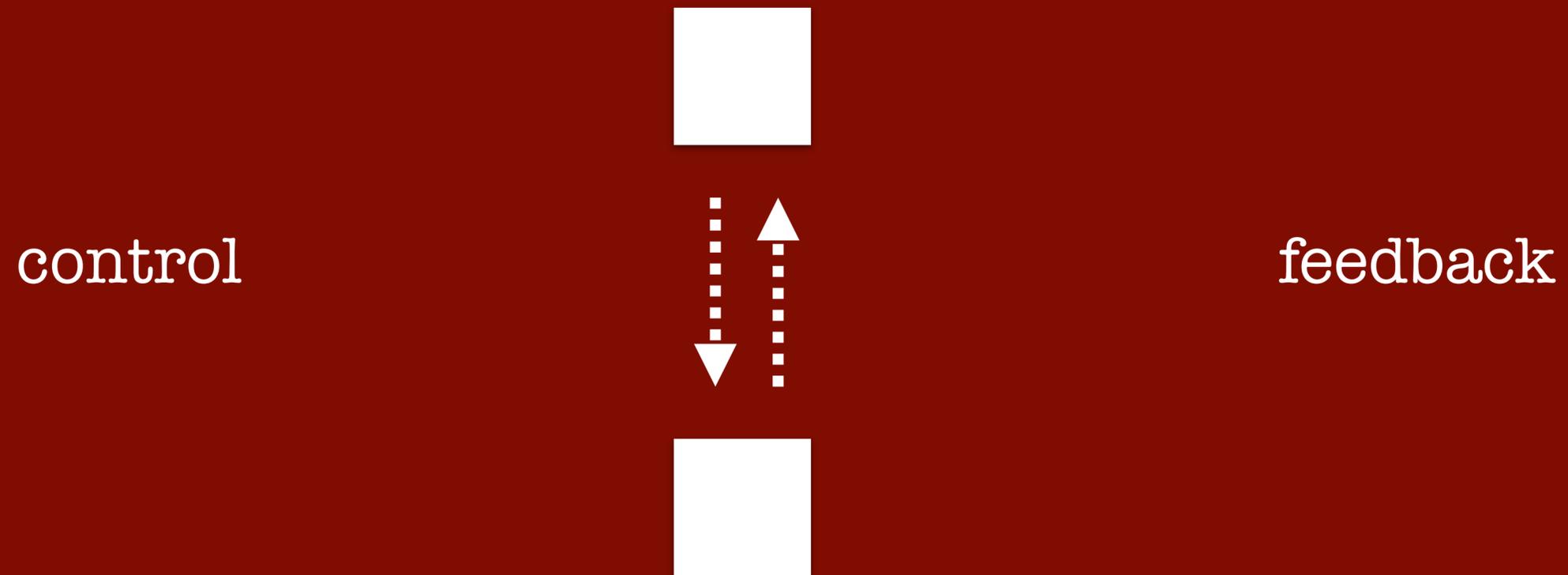
(retrospective coherence)

History is the fiction we invent
to persuade ourselves that events are knowable
and that life has order and direction.

Bill Watterson



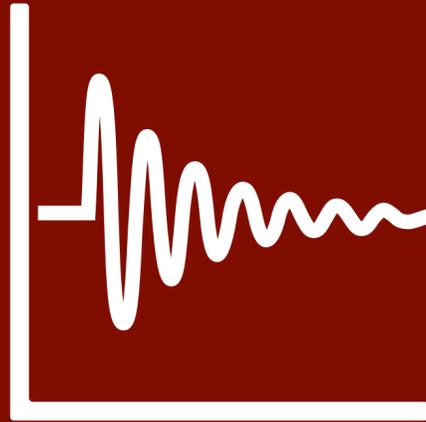
Management as “root cause”



work “as done” vs. “as imagined”

Learning

unexpected surprises



“how” not “why”

(rapid)

Resources are finite.
Surprise is fundamental.
Change never stops.

David Woods



N

Following an operational surprise,
we seek to understand what the world looked like
from the perspective of the people involved.

We facilitate interviews, analyze joint activity,
and produce artifacts like written narrative documents.

Relationship building is a huge part of this role.

Netflix Job Advert, Snr Resilience Advocate



PART 3

being

A white circular button is placed on a red and black plaid fabric. The button has the text "WHAT MAKES US HUMAN?" printed on it in a bold, black, sans-serif font. The fabric has a classic plaid pattern with alternating red and black squares. The button is positioned in the lower right quadrant of the image.

**WHAT
MAKES US
HUMAN?**

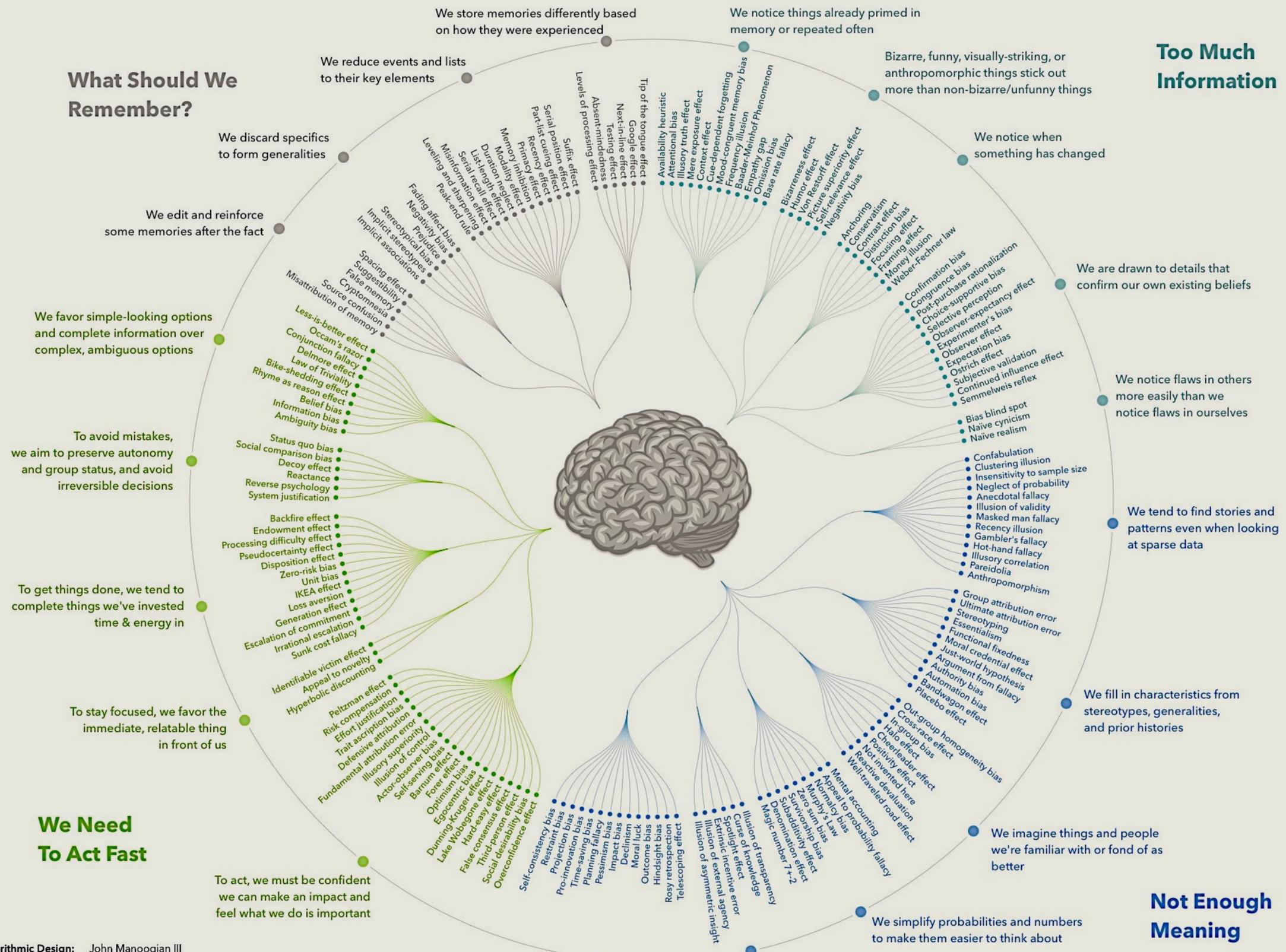
We see things
not as they are

... but as we are.

Anaïs Nin



COGNITIVE BIAS CODEX



Visual & Algorithmic Design: John Manoogian III

Concept & Categorization: Buster Benson

List of 188 Cognitive Biases: Wikipedia

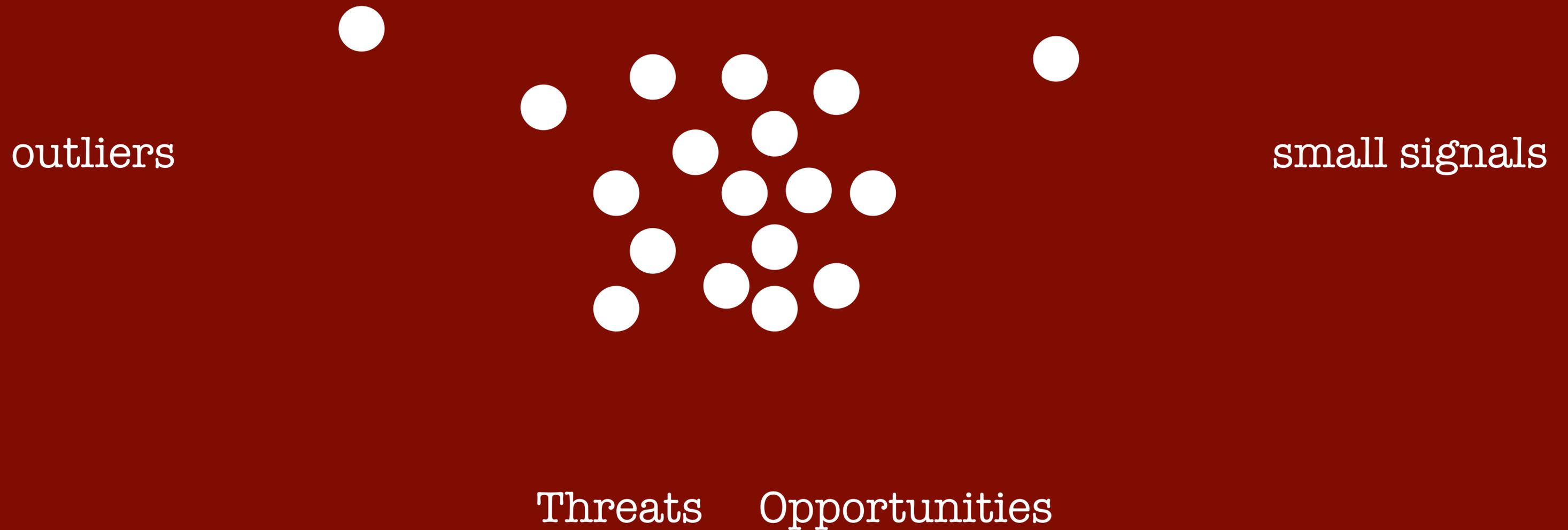


Experts

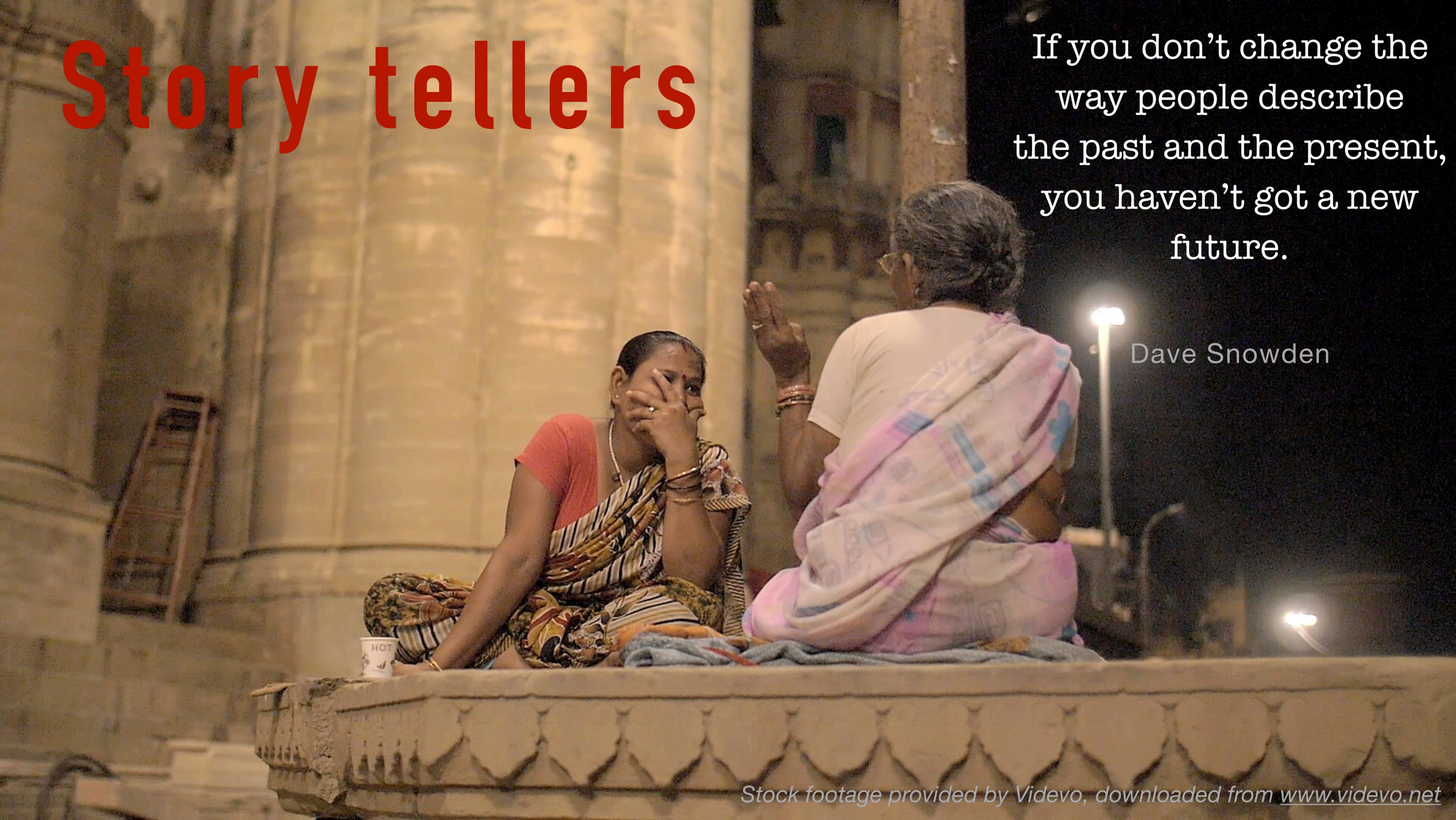
83%

radiologists

Where the Possibilities Lie



Story tellers



If you don't change the way people describe the past and the present, you haven't got a new future.

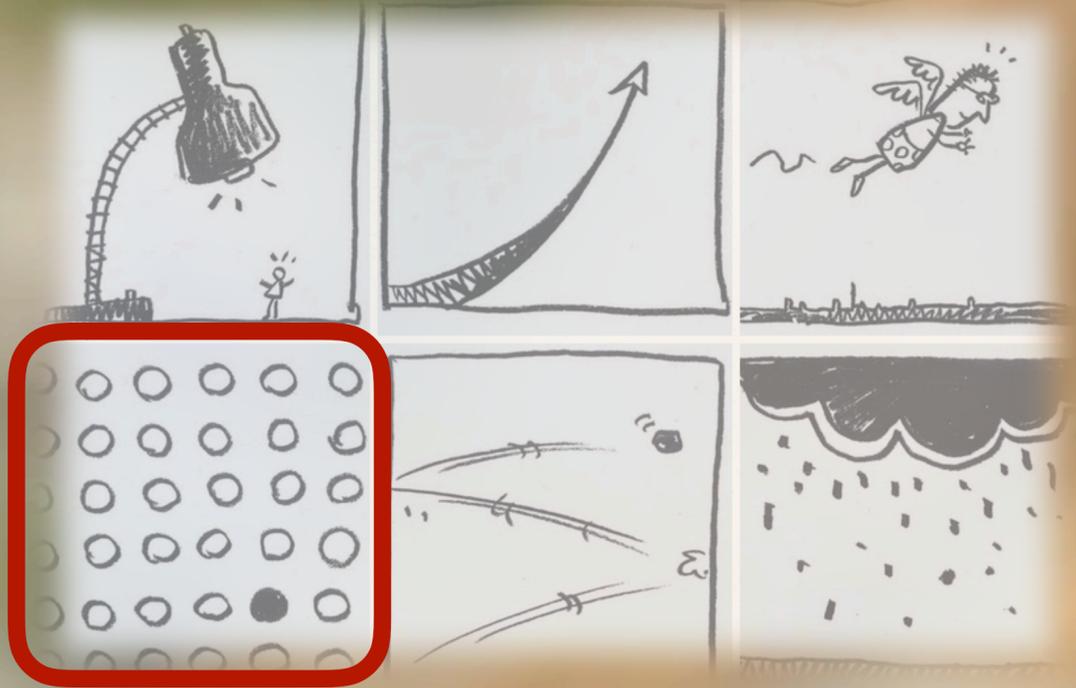
Dave Snowden

Maybe stories are just data
with a soul.

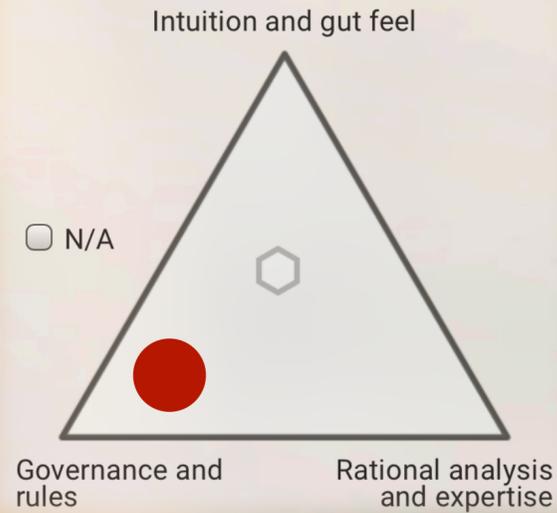
Brené Brown



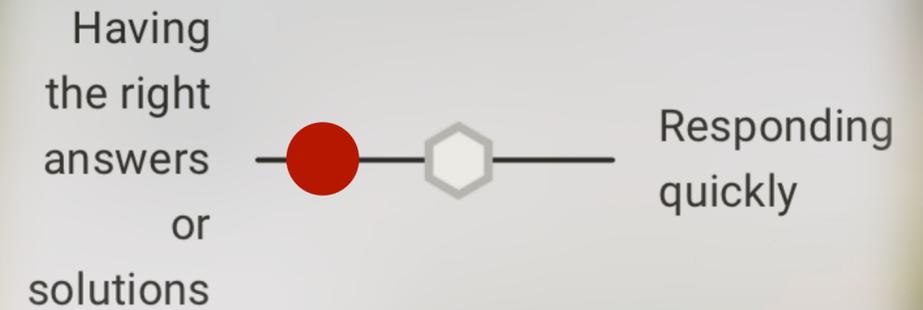
Human sensor networks



In my story, our decisions about what to do were guided by ...



In my story, the focus was on



Please give your story a title or describe it in a #tag:

no one saw it

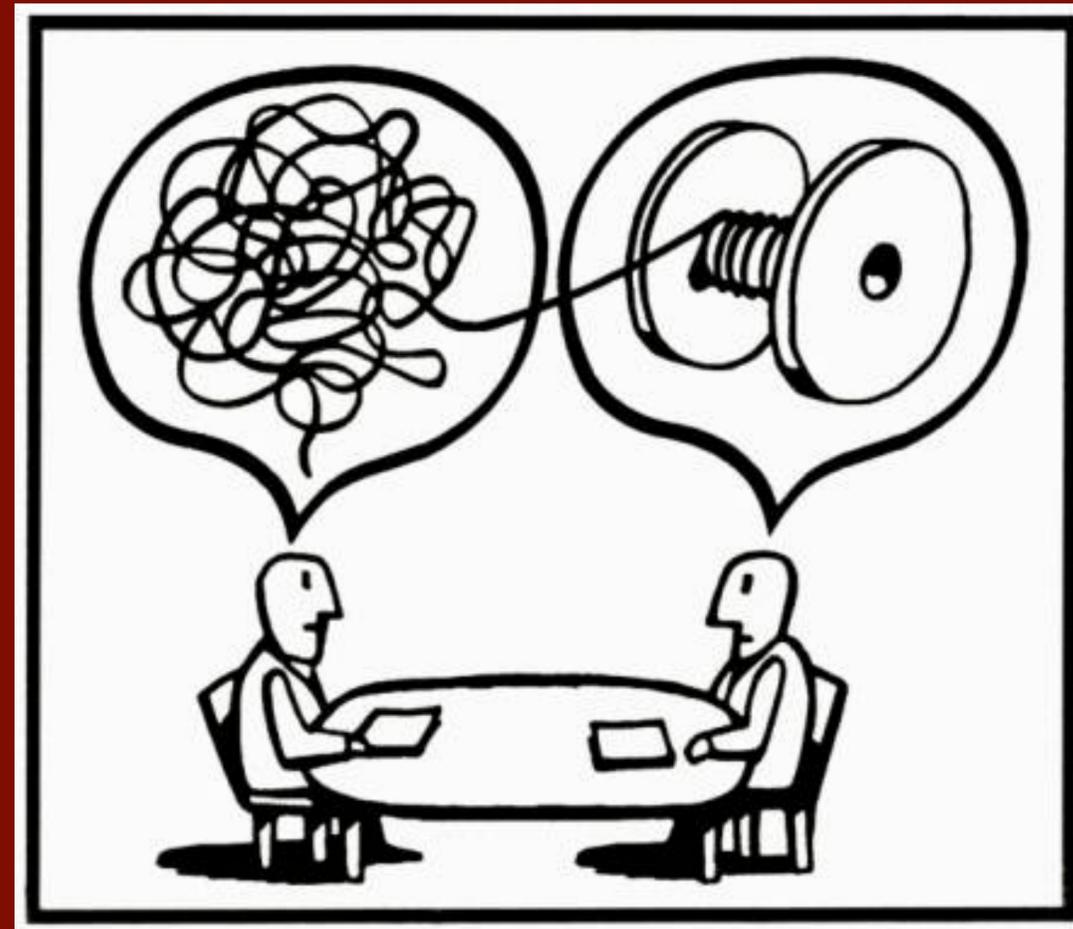
- Situational Awareness
- Curiosity
- Sensemaking
- Embracing Diversity
- Unlearning & Relearning
- Experimental mindset

In the end we all become stories.

Margaret Atwood

Sense of Coherence

Meaning



Sensemaking

Agency and
connectedness

(the requisite) imagination
enables better decision making,
because the unintended consequences of decisions
are factored into the process
of coming to a decision

Karl Weik, Kathleen Sutcliffe



Simulation Exercises

Ritual



“entering an ‘as-if’ world”

Rituals are transformative
because they allow us to become a different person for a moment.

They create a short-lived alternative reality
that returns us to our regular life slightly altered.

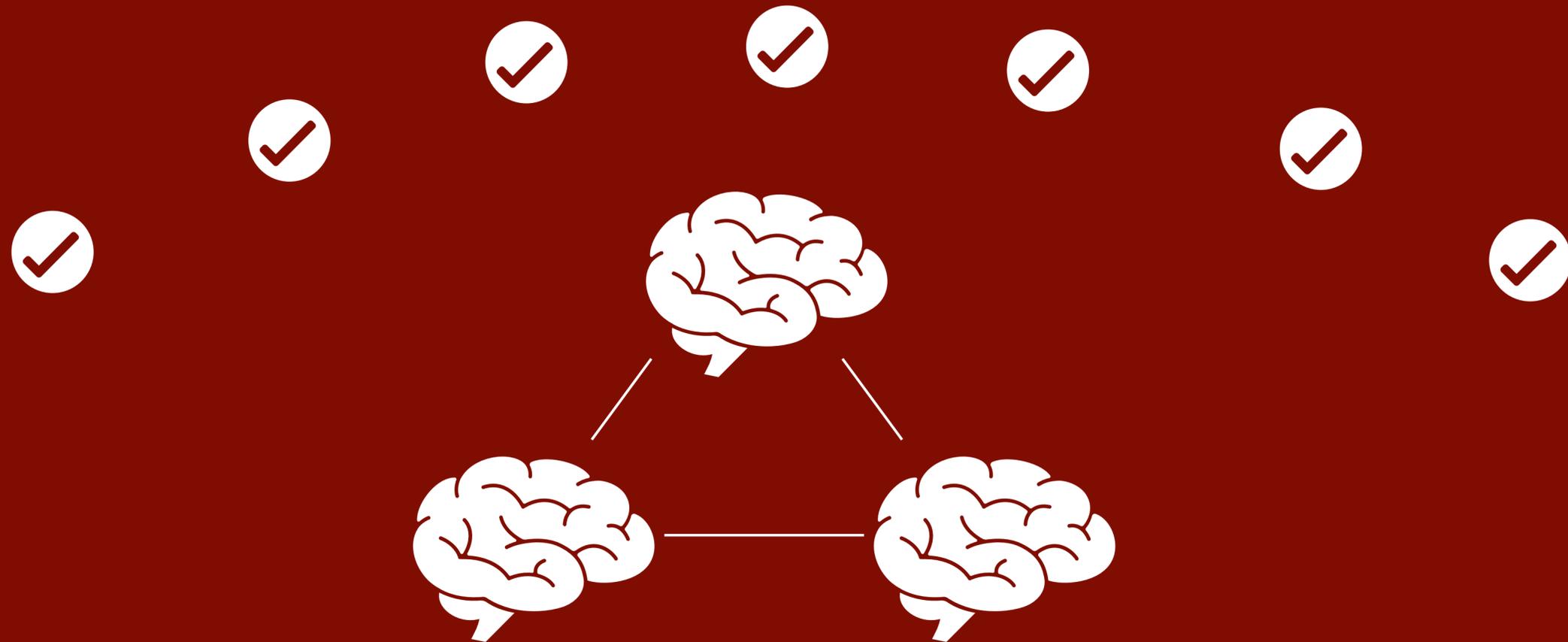
For a brief moment,
we are living in an "as-if" world.

The key for the players is to be conscious
that they are pretending;
that together they have entered an alternative reality
in which they imagine
different aspects of themselves.

Michael Puett, Christine Gross-Loh



Collective Creativity



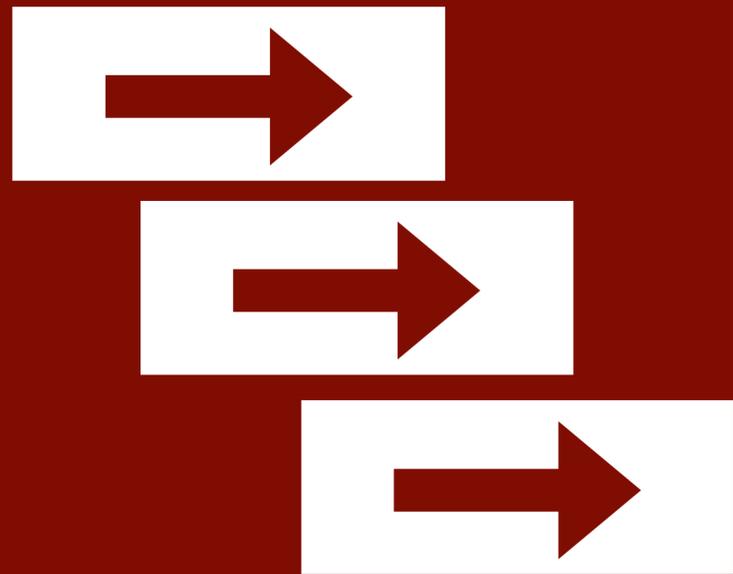
“objectives that match the complexity of what we face”

The thing you are doing now
affects the thing you see next.

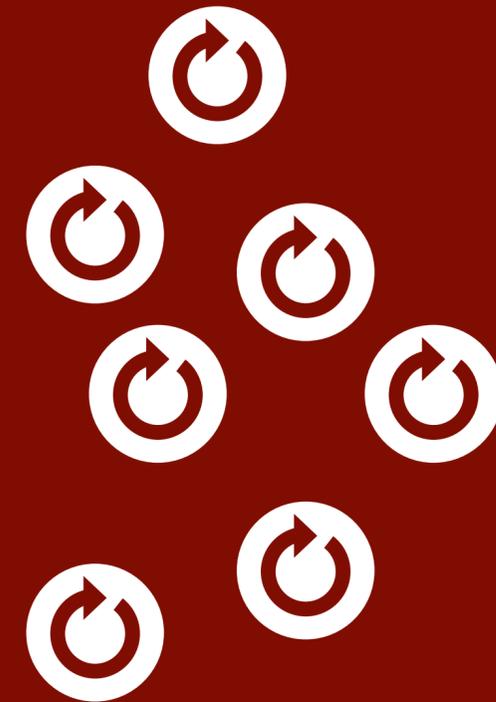
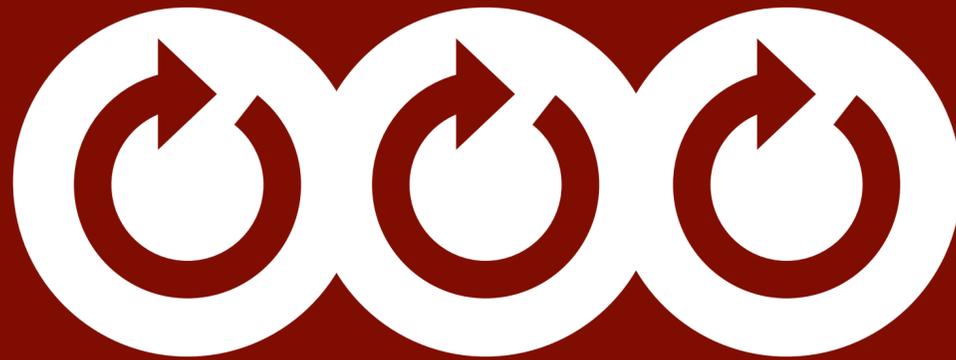
Alexandra Horowitz



Acting in Complexity



waterfall



agile / scrum
“multiple safe-to-fail-
experiments”

We see in order to move;
we move in order to see.

William Gibson





mastery

Pixabay





sensemaking

meaning

connection

agency

CONCLUSION



Complex adaptive systems

story telling as warm data

human sensor networks

small signals & outliers

influence vs control

ritual as influence

uncertainty

change

disruption

Resilience thinking

human variability vs human error

causes vs. influence

root cause

sense of coherence

human creativity

the agile journey

evolutionary potential of the present



You will come to a place
where the streets are not marked.
Some windows are lighted. But mostly they're darked.
A place you could sprain both your elbow and chin!

Do you dare to stay out? Do you dare to go in?
How much can you lose? How much can you win?
And IF you go in, should you turn left or right ...
or right-and-three-quarters? Or maybe not quite?
Or go around back and sneak in from behind?

Simple it's not, I'm afraid you will find,
for a mind-maker-upper
to make up his/her mind.

