



Systems thinking for transformative change

a comparison of systems points of
leverage



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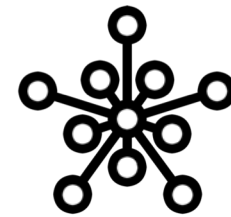
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Evolve Agility

Which one is a butterfly?

- A. Crawls, munches on leaves
- B. Flies, drinks nectar from flowers

a Transformation



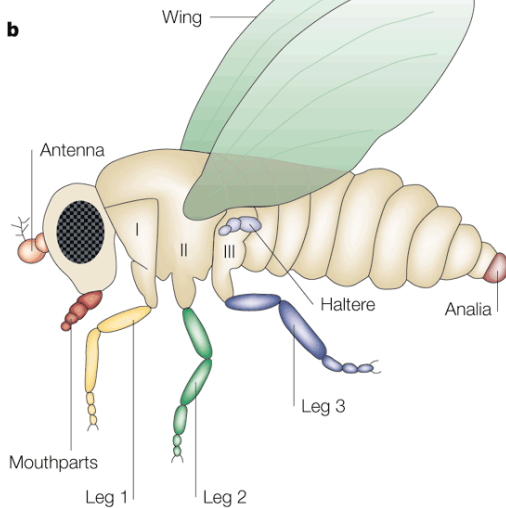
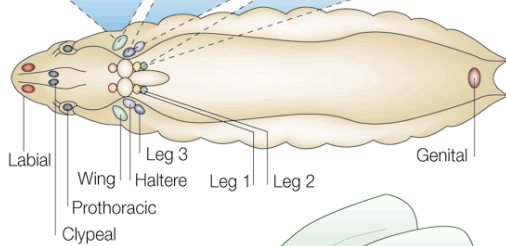
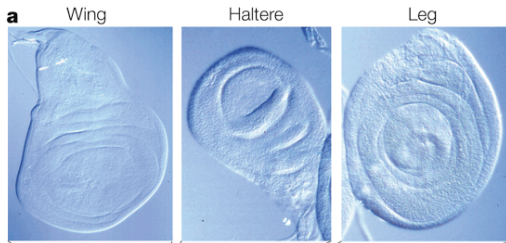
Of Butterflies and Caterpillars

*The butterfly, radiant and popular
Looks down on the caterpillar
Forgetting that it too used to be one*

*The caterpillar, in confusion
Looks up to the butterfly with admiration
Not knowing it too will become one
And in time past was also begotten by one*

*What a curse!
What an irony!
Not to value your origins
Not to know your destiny*

© Kiros Berhane (November, 2000)

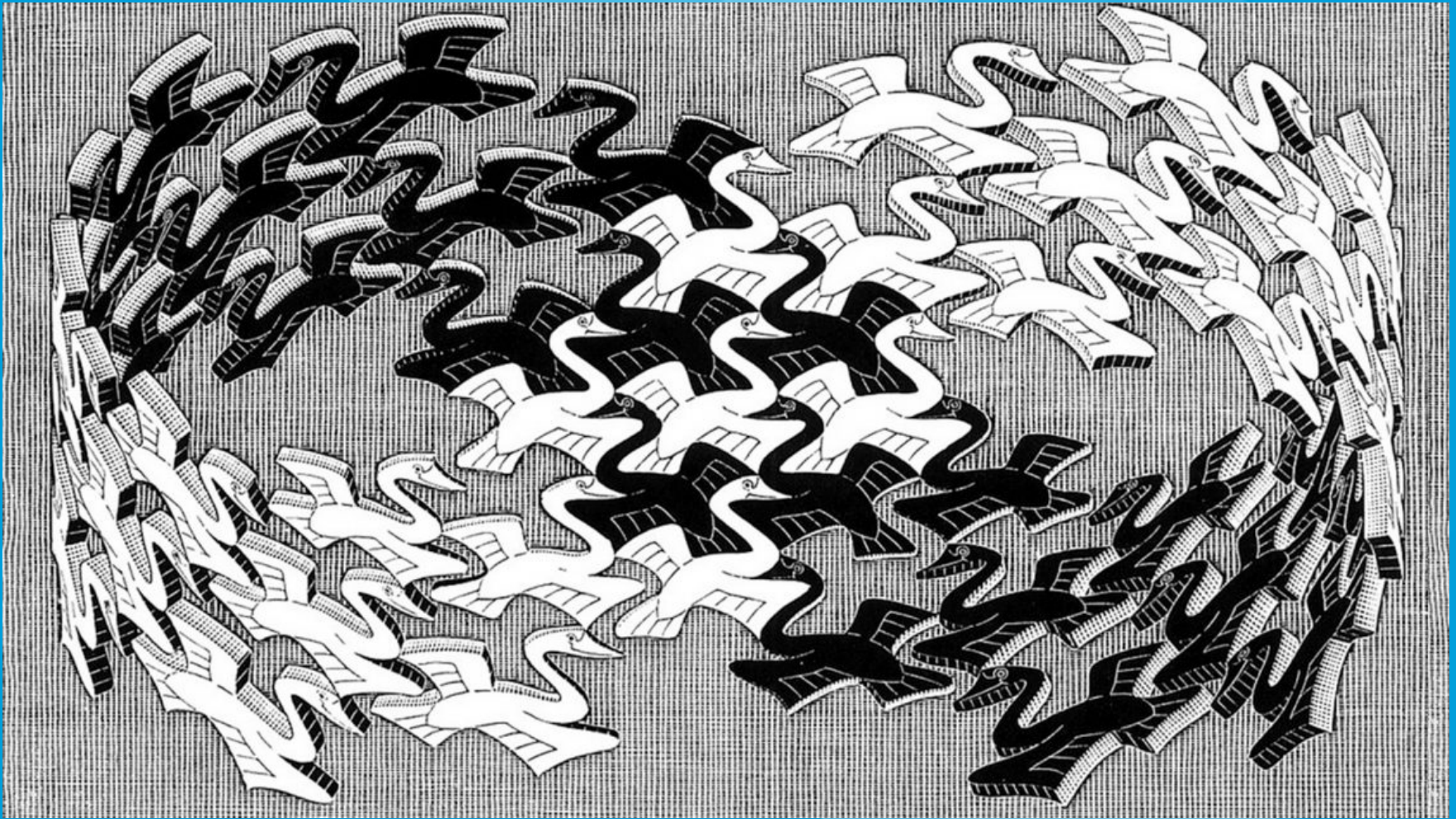


“To become a butterfly, a caterpillar first digests itself. But certain groups of cells (imaginal discs) survive, turning the soup into eyes, wings, antennae and other adult structures”

Source:

<https://www.scientificamerican.com/article/caterpillar-butterfly-metamorphosis-explainer/>

Culture Vulture, Strange loop



artist: M.C. Escher

Culture Myth : #1 barrier to adoption

❁ Culture: “This is how we do things around here ...”

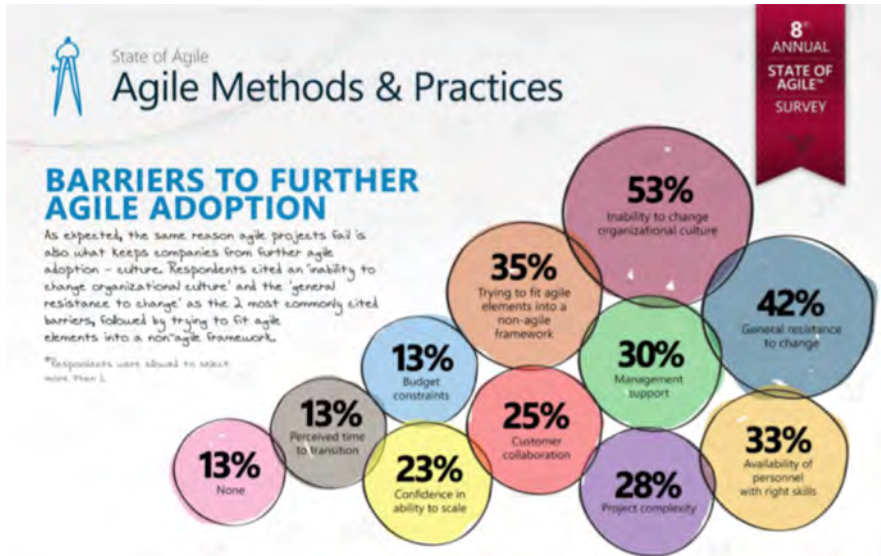
❁ **Culture** is the set of *behaviors* that have been *established* and *accepted* within an organizations



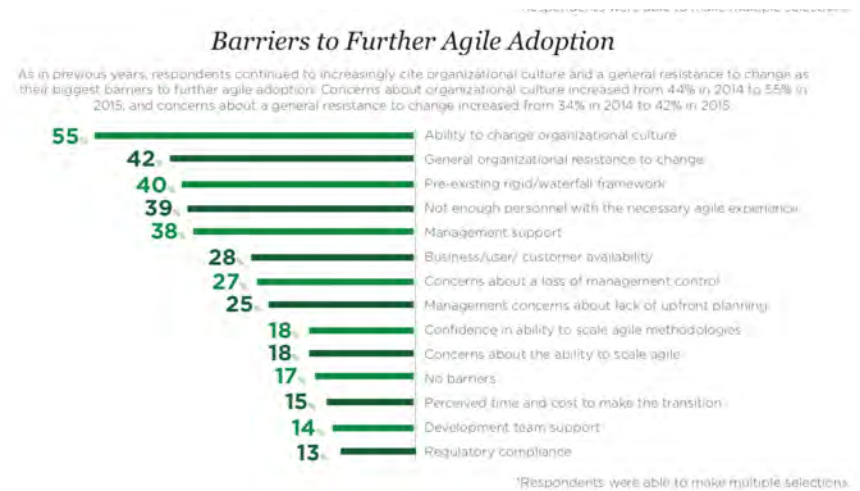
Is culture predictive of behavior across hierarchies, silos, functions, etc?

- A. Yes
- B. No
- C. Maybe

Barriers to adoption (1/2)



2013



2015

source: <http://stateofagile.versionone.com/>

Barriers to adoption (2/2)

Challenges Experienced Adopting & Scaling Agile

While the vast majority of respondents and their organizations have realized success from adopting agile practices, they recognize that there are challenges to scaling agile. The top two challenges cited were organizational culture at odds with agile values (63%), and lack of skills or experience with agile methods (47%).



Challenges Experienced Adopting & Scaling Agile

From last year to this year we saw a decrease in respondents citing "organizational culture at odds with agile values" and "lack of business/customer/product owner availability" as challenges for adopting and scaling agile. Barriers that were cited more this year include "fragmented tooling", "inconsistent processes across teams" and "general resistance to change".



2016

2017

source: <http://stateofagile.versionone.com/>

守 Learn the rules

離 Bend the rules

破 Break the rules

Ha

Ri (being)



Shu (doing)



Shu-Ha-Ri is a way of thinking about how you learn a technique. The name comes from Japanese martial arts (particularly Aikido), and [Alistair Cockburn](#) introduced it as a way of thinking about learning techniques and methodologies for software development.

The idea is that a person passes through three stages of gaining knowledge:

- **Shu:** In this beginning stage the student follows the teachings of one master precisely. He concentrates on how to do the task, without worrying too much about the underlying theory. If there are multiple variations on how to do the task, he concentrates on just the one way his master teaches him.
- **Ha:** At this point the student begins to branch out. With the basic practices working he now starts to learn the underlying principles and theory behind the technique. He also starts learning from other masters and integrates that learning into his practice.
- **Ri:** Now the student isn't learning from other people, but from his own practice. He creates his own approaches and adapts what he's learned to his own particular circumstances.

source: <https://martinfowler.com/bliki/ShuHaRi.html>

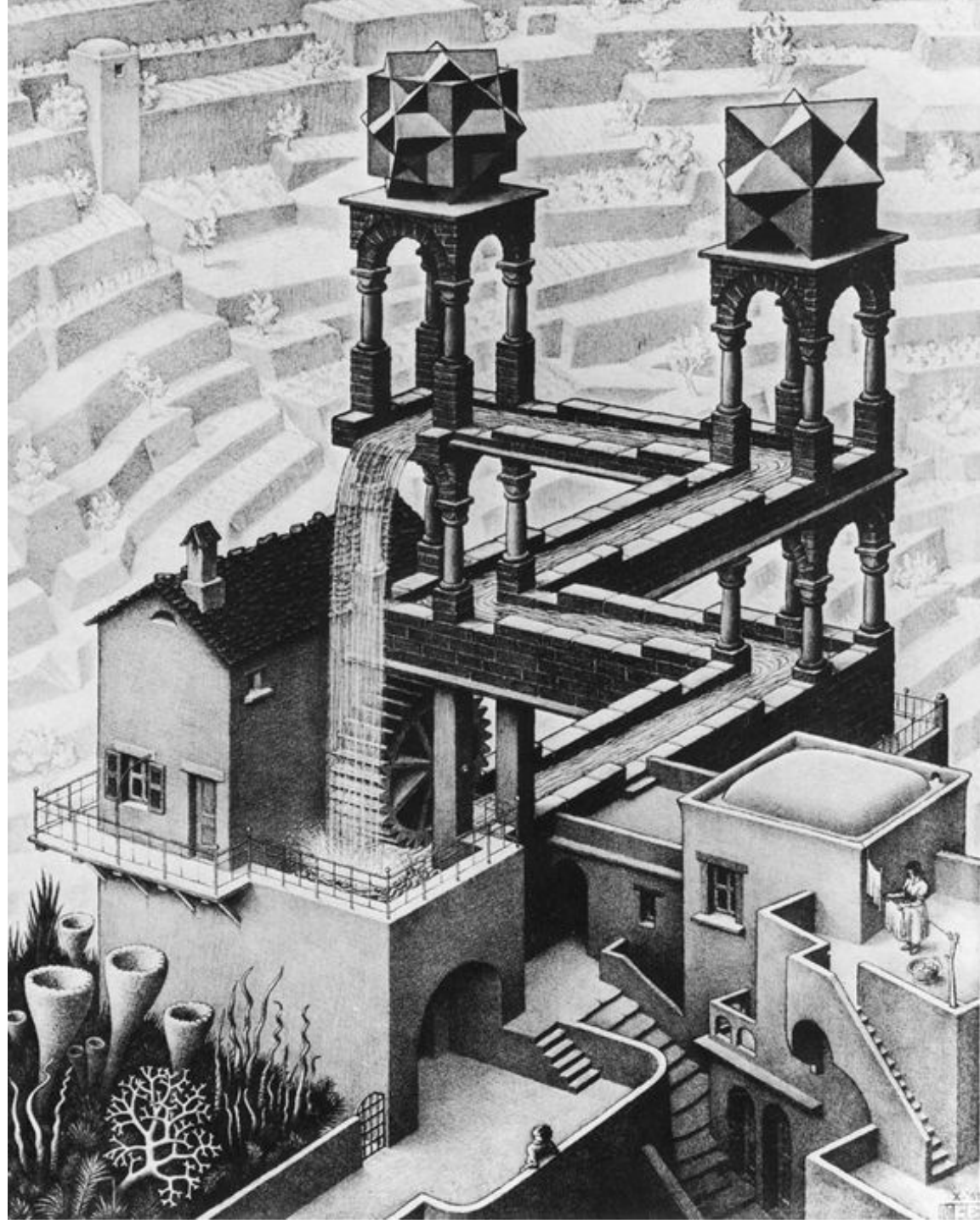
When will your organization Shu-Ha-Ri into agility?

- A. Never
- B. Dumb question
- C. a few years
- D. Don't know

Strange loop

A cyclical structure that goes through several levels in a hierarchical system. It arises when, by moving only in upwards or downwards through the system, one finds oneself **back** where one started.

artist: M.C. Escher




Shu-Ha-Ri trap

- ❁ Culture is often targeted as impediment
- ❁ Direct attempts at changing culture are haphazard
- ❁ Focus on technique level adoption (Shu-Ha-Ri) is necessary but not sufficient.



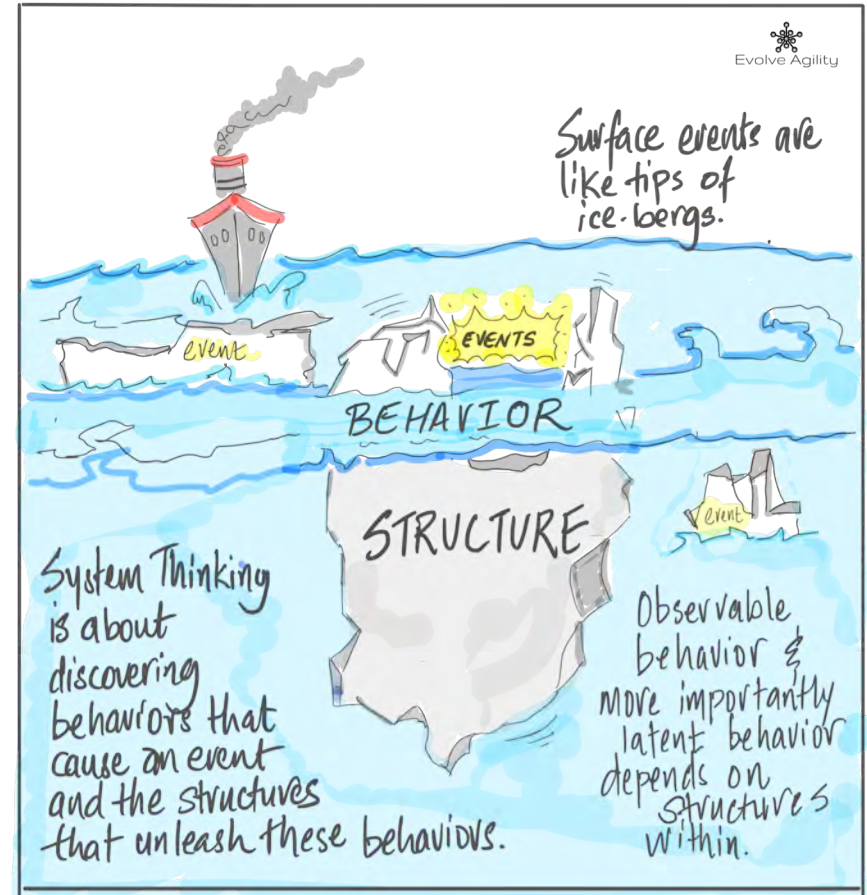
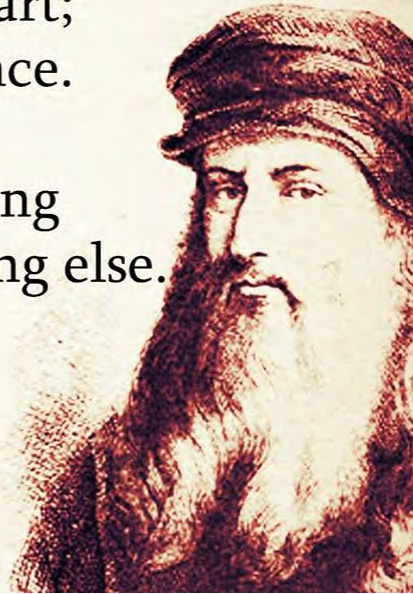
<https://www.halloweencostumes.com/adult-vulture-costume.html>

Not just.. Behavior Change

- ✿ Context is king
 - ✿ Systems structure, overrides behavior changes
 - ✿ Most “Agile transformations” are one re-org away from obsolescence
-  tip: Measure your transformation success on number of re-orgs it can survive, not by number of teams that do Agile.

To develop a complete mind:
Study the science of art;
Study the art of science.
Learn how to see.
Realize that everything
connects to everything else.

Leonardo da Vinci



Powerful truth: Culture Change is free

“Attempts to change an organizations culture is a folly, it always fails. Peoples behavior (culture) is a product of the system; when you change the system peoples’ behavior changes.”

– John Seddon

<https://vanguard-method.net/wp-content/uploads/2015/07/culture-change-is-free.pdf>

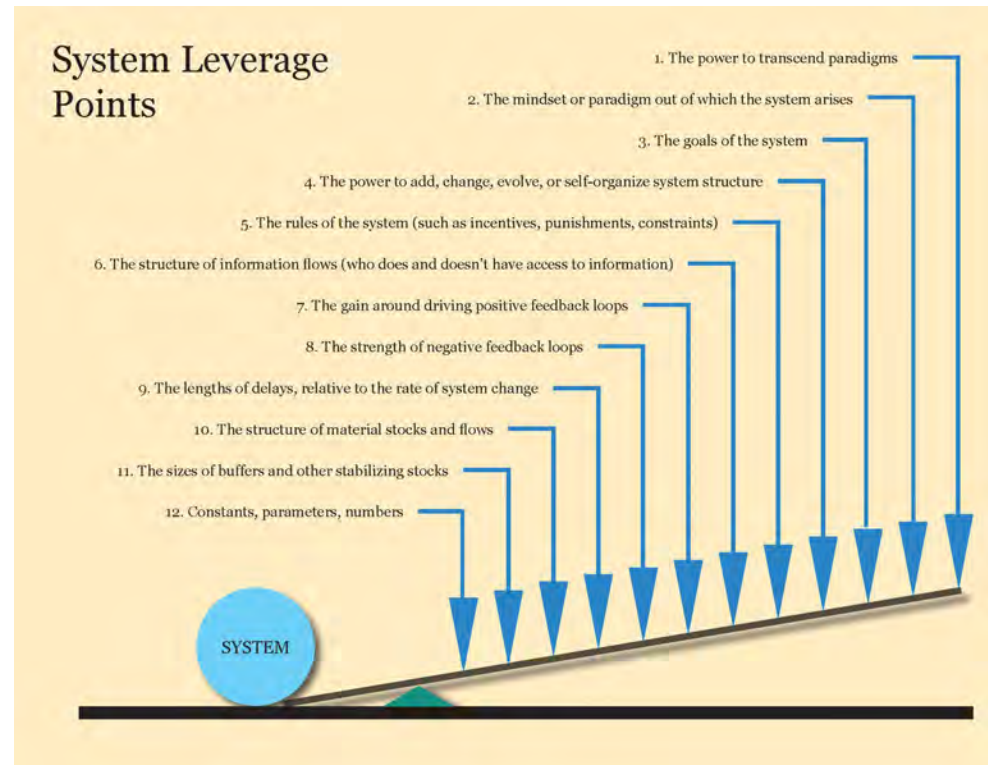
Culture follows structure

Larman's Laws of Organizational Behavior

Leverage points are points of power

✿ Points of leverage are places within a complex system where a small shift in one thing can produce big changes in everything.

✿ The higher the leverage point, the more the system will resist changing it.



<http://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>

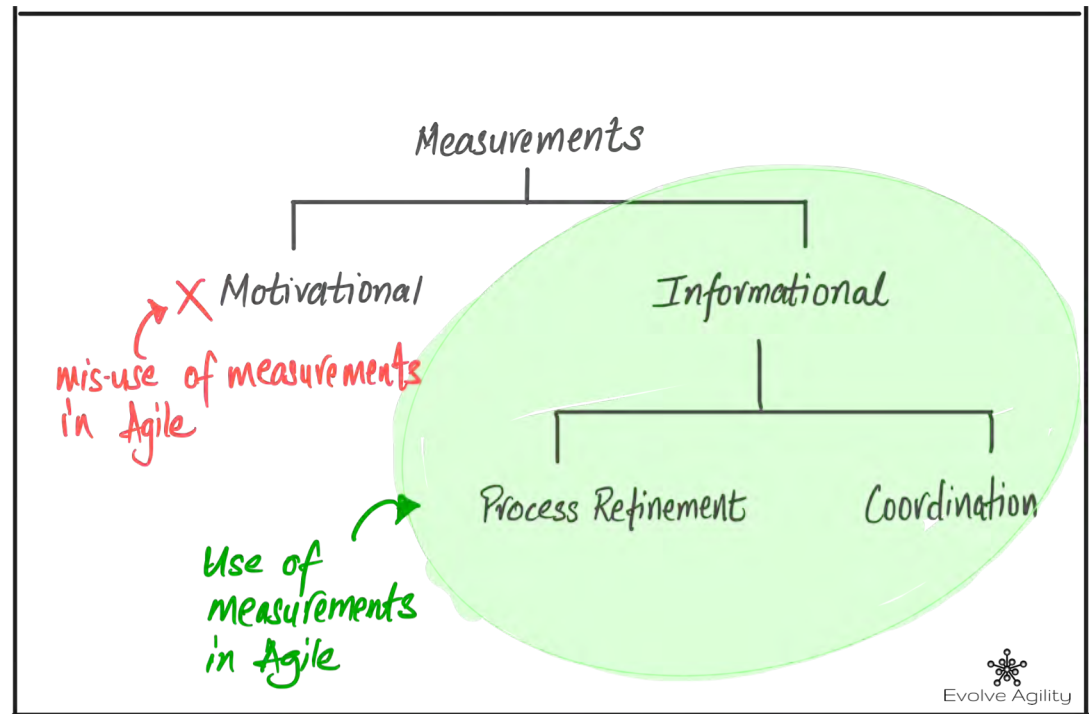


(12) Constants, parameters, & numbers VS
(6) Structure of information flows

Intended use of measurements

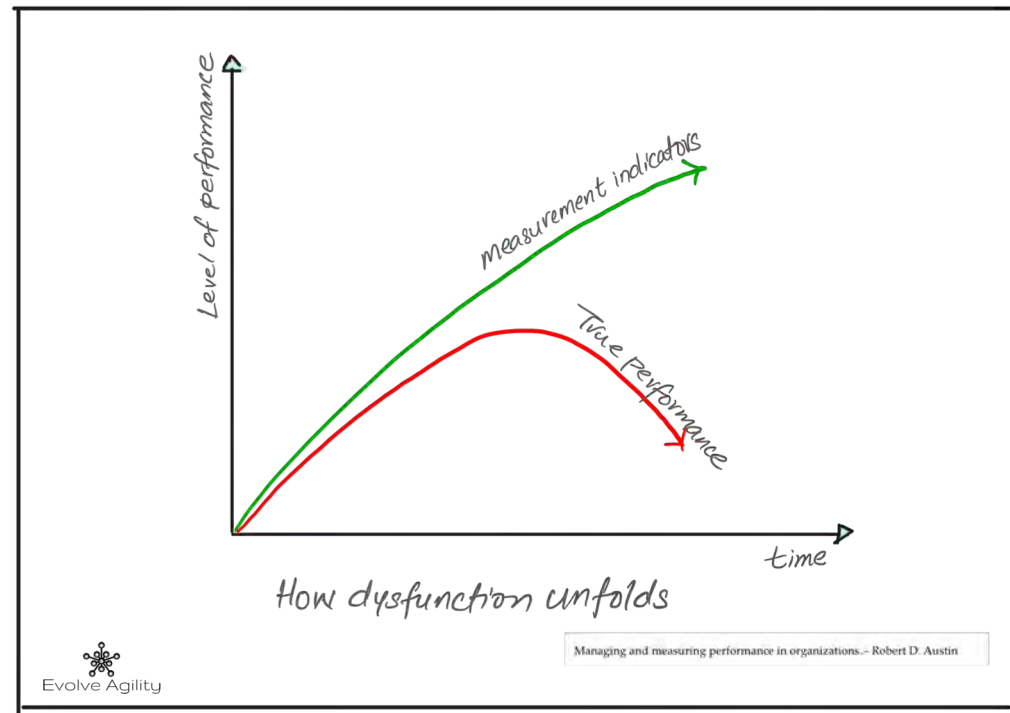
“Nothing about a piece of information makes it inherently motivational or informational. Rather, it is the way in which the information is used that determines the measurement category.”

- Robert. D. Austin



Dysfunctional Measurement Systems

- ❁ *Use of measurements is more important than measurements you use.*
- ❁ *Even when measurements are intended for informational purposes, these are interpreted to reflect important aspects of job and hence have implications for motivations of behavior.*



Poll: Which is better at regulating driver behavior?

A



B



Compelling feedback

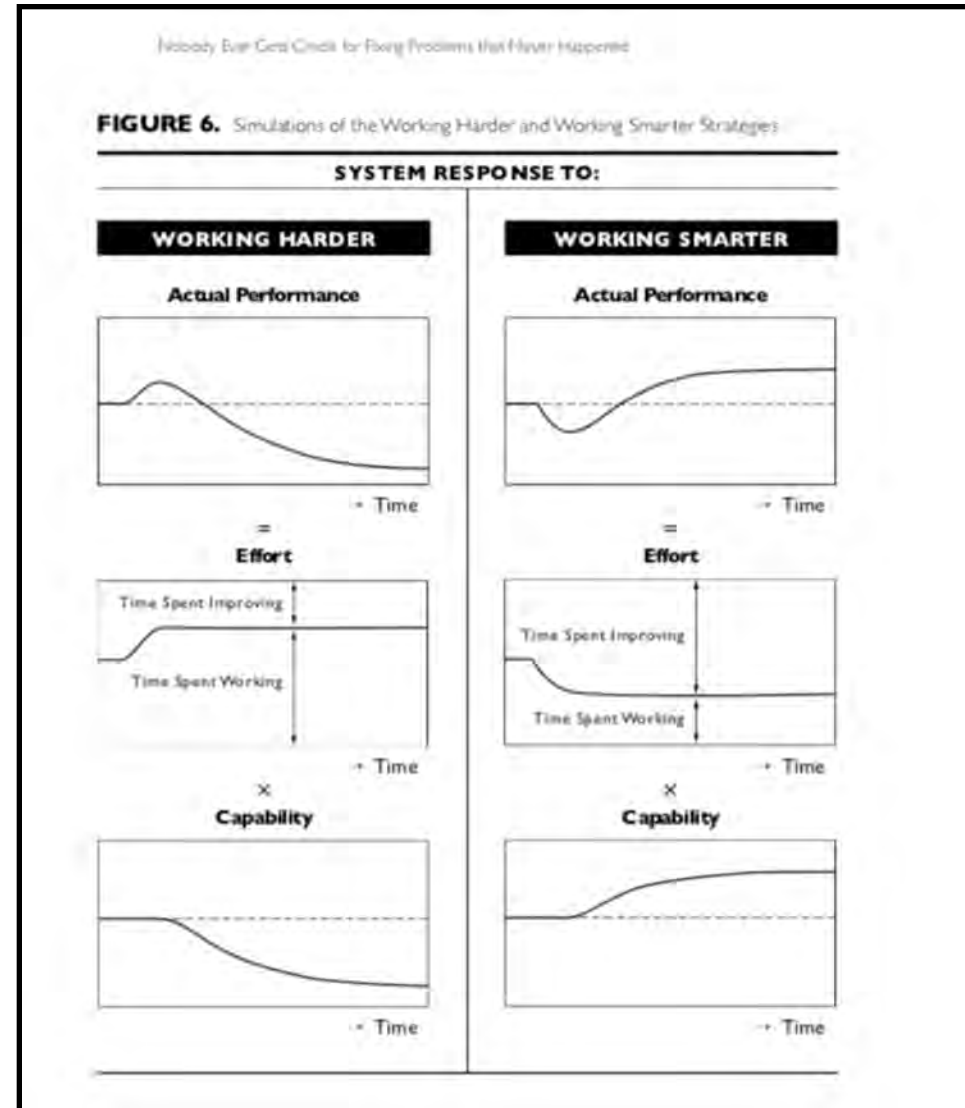
- ❄ Missing feedback is most common cause of system dysfunction.
- ❄ Tampering with arbitrary measures such as: budget, utilization, velocity, estimates, etc. has minimal impact on system capability.
- ❄ Compelling feedback requires building new information flows.

Examples:

- ❄ TDD (Red, Green, Refactor)
- ❄ PO/Developers spend time on customer support calls.
- ❄ Team responsible for product, also fixes reported bugs.
- ❄ Product code health, operations metrics on information radiators in team area.

If it feels like a slogfest!

- ❁ Test of a good measure: *Does this measure help us understand and improve performance?*
- ❁ Are you lacking *compelling feedback loops?*
- ❁ Focus on improving quality of product, and quality of life of people developing and using your product. Speed will follow.





- (5) Rules of system VS
- (4) Power to self-organize system structure

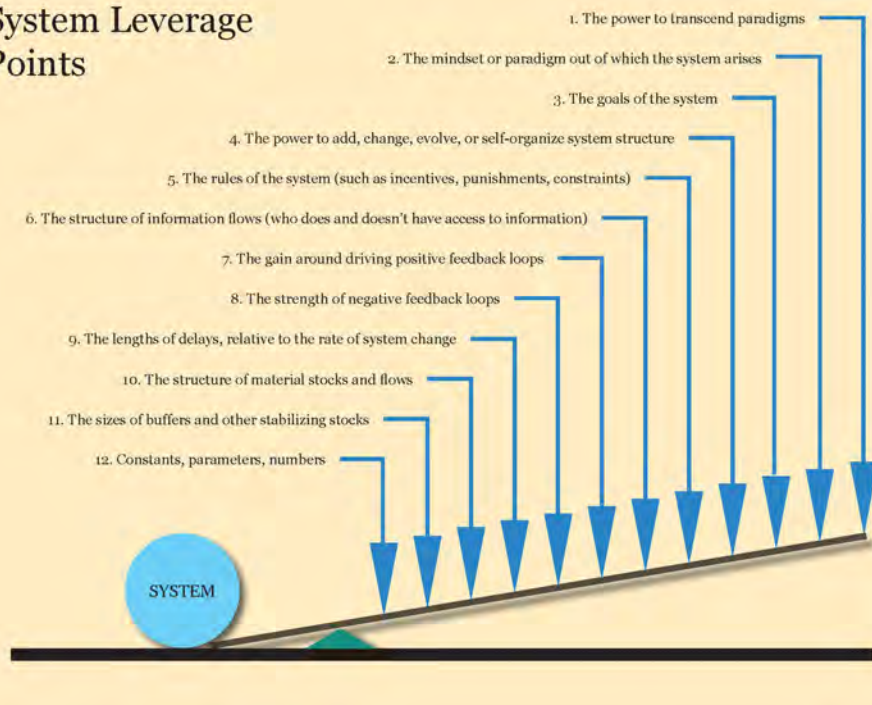


imagine

Different rules for your organization. Please write it down, and share at end of presentation.

(5) Rules of system (incentives, punishments, constraints)

System Leverage Points



“If you want to understand the deepest malfunction of systems, pay attention to the rules, and to who has power over them.”

- Donella Meadows

Fear is most dominant feeling in organizations

- * Fight
- * Flight
- * Freeze

Blame:

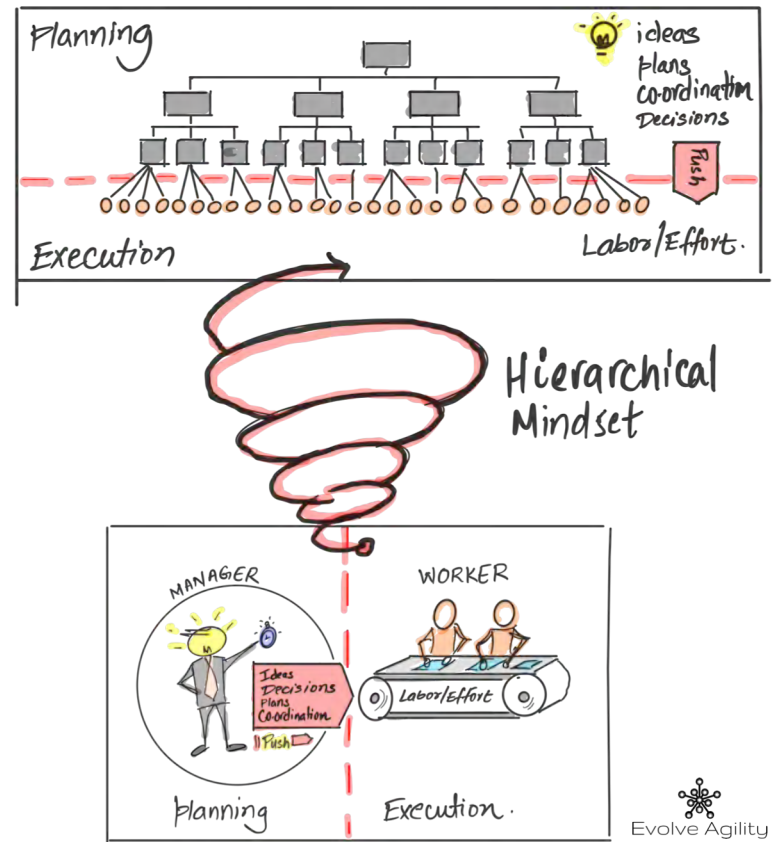
Fear feeds and grows in organizations, when people are treated as part of the problem instead of part of the solution.



The face of war (1940), Salvador Dali

Fear factories

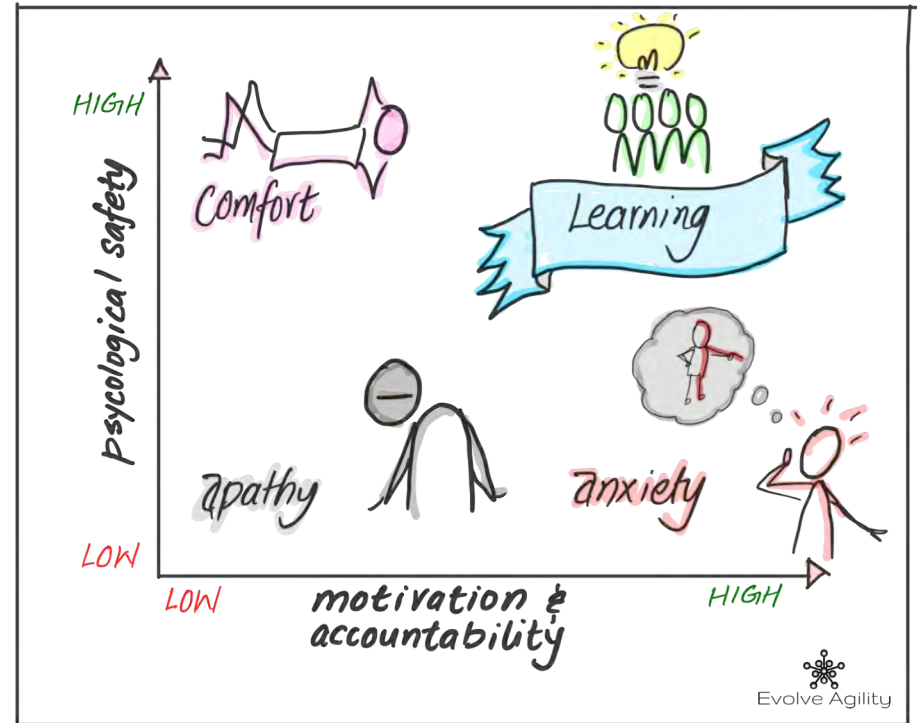
- * Managers rely on abstractions (dashboard of metrics) but have no hands-on understanding of day to day realities.
- * Workers lack context, contact with customers, in order to make right products.
- * Managers designing organization policies, information flows (systems) rely on sampling of opinions, “best-practices”, etc. with no feedback loops to balance Org-design assumptions.



Psychological safety

❁ Psychological safety is individual's perception that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes.

- Amy Edmondson

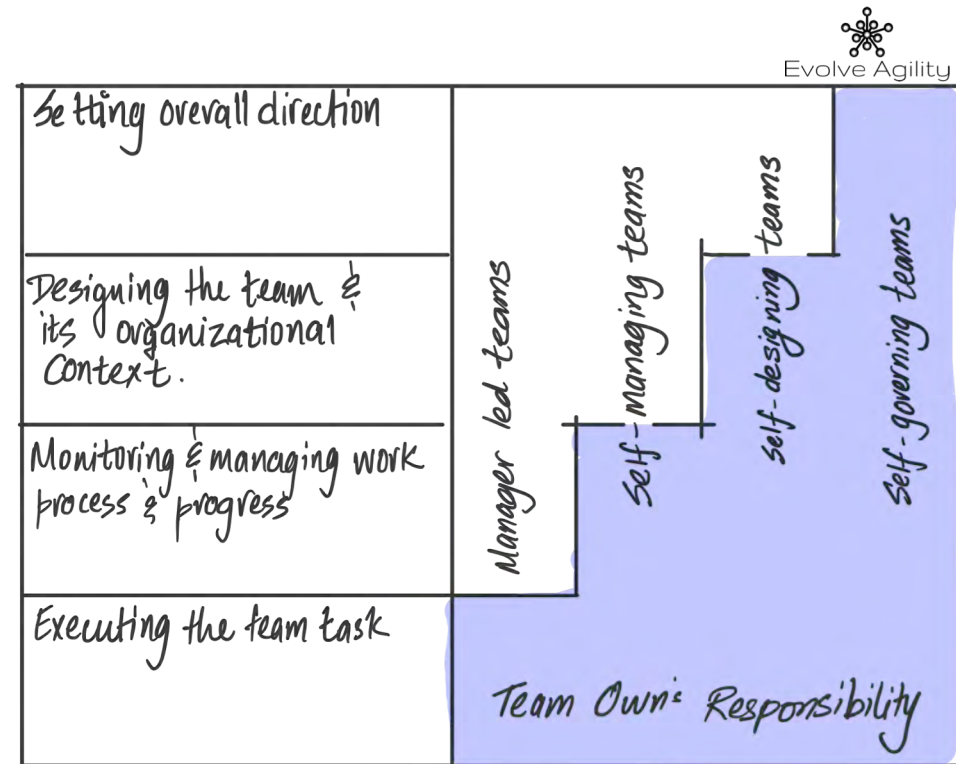


Recommended further study: Project Aristotle -

<https://rework.withgoogle.com/guides/understanding-team-effectiveness/steps/introduction/>

Power over the rules is real power

- ❁ Management sets overall direction and purpose of organization.
- ❁ Management defines meta-rules: Rules about making, changing, removing rules.
- ❁ Self-Managing teams have autonomy to change rules, measurements, information flows of their system.



Authority Matrix - "Leading teams" by Richard Hackman



- (3) The goals of system VS
- (2) Mindset out of which system arises

Paradox of progress, and choice

Less is More

“A New York banker vacationing in Greece, who, from talking-to a fisherman and scrutinizing the fisherman’s business, comes up with a scheme to help the fisherman make big business. The fisherman asked him what the benefits were; the banker answered that he could make a pile of money in New York and come back to vacation in Greece; something that seemed ludicrous to the fisherman, who was already there doing the kind of things bankers do when they go on vacation in Greece.”

- *Skin in the game, Nassim Nicholas Taleb*



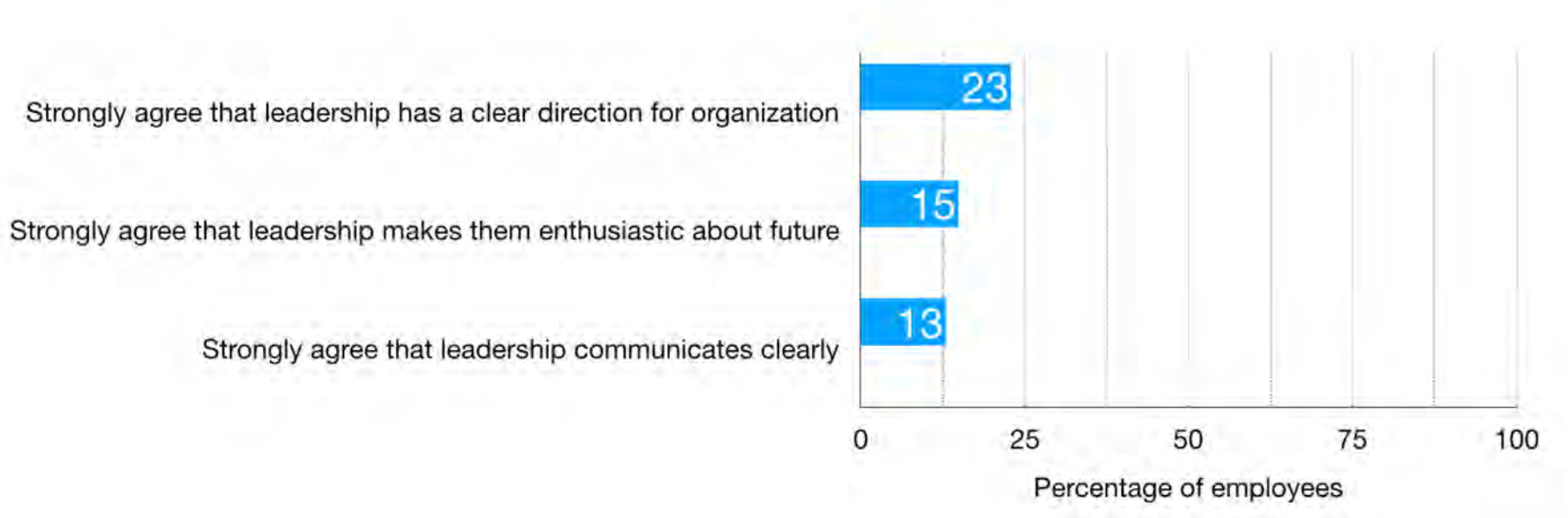
This parable is ancient, author unknown, characters keep changing but structure remains same.

If the goal is _____ , then everything further down will be twisted to conform to that goal.

Coercive change anti-pattern

- A. Management sends mission statements, and put up posters.
- B. Sets targets & incentives, provides “playbook”, installs Agile tools
- C. Demands reports on what people are doing?
- D. People (mostly) report what management wants to hear.
- E. Complaints from people are treated as evidence of success. Change is supposed to be hard, they believe.

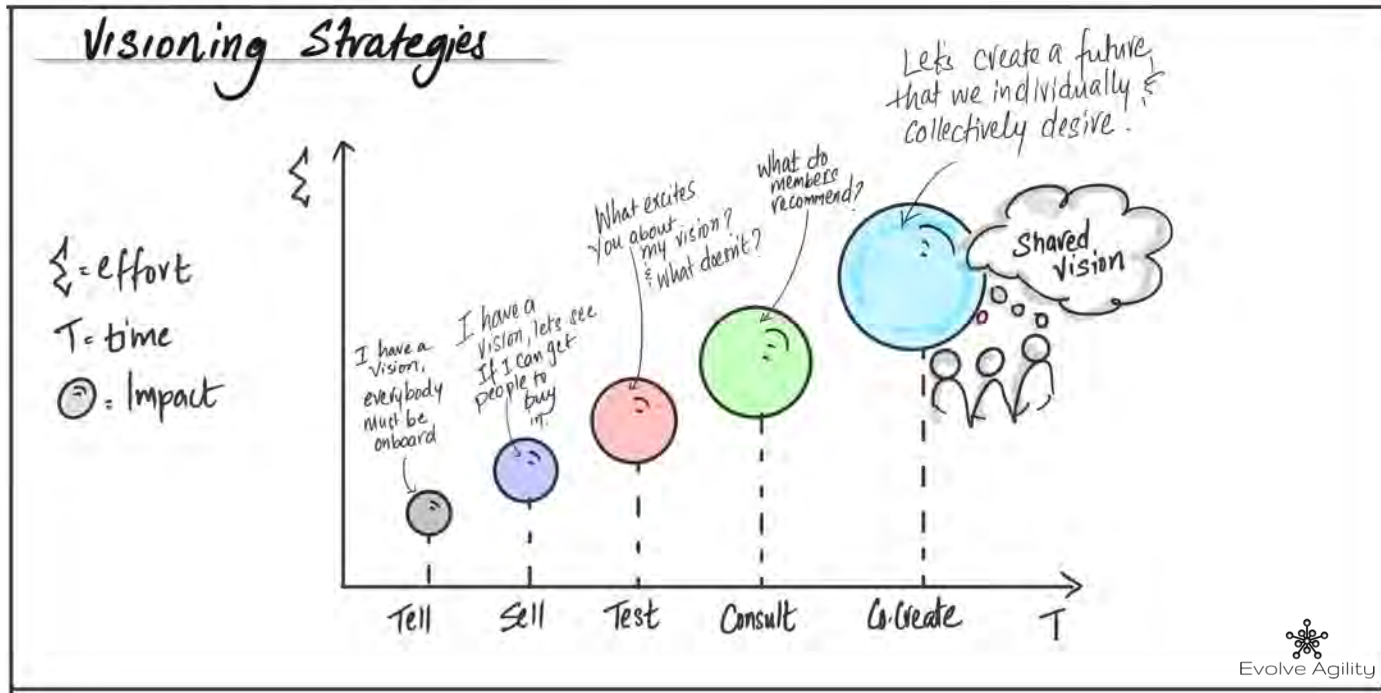
Employees have little belief in their company's leadership



Source: Gallup state of the American workplace report 2017

Gallup developed State of the American Workplace using data collected from more than 195,600 U.S. employees via the Gallup Panel and Gallup Daily tracking in 2015 and 2016, and more than 31 million respondents through Gallup's Q Client Database.

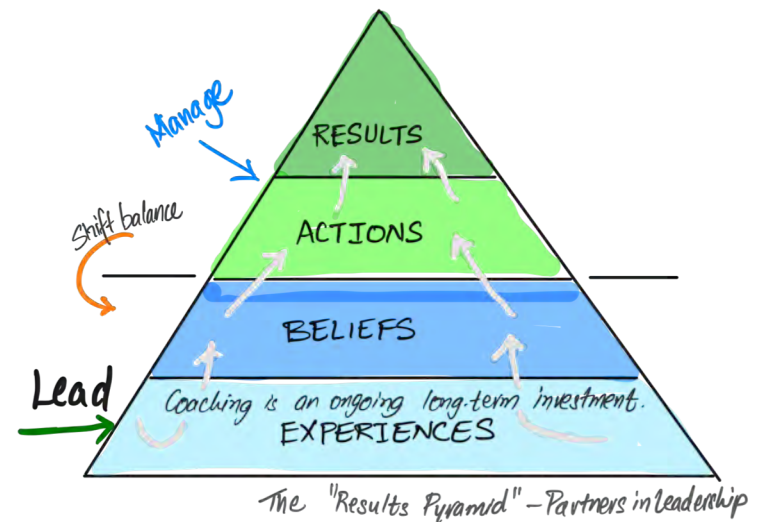
Mindset (Paradigms) are sources of systems



From shared agreements on nature of reality, come system goals and information flows, and feedback loops, and everything else about your organization system.

Leading transformative change

- * Focus of change in actions is mechanistic view of change process, hoping agile-like actions will yield better results.
- * Without change in underlying belief systems, people face uncertainty and fear in pursuit of management 'approved' behavior.
- * People grow & learn in supportive environments, and integrate new way of thinking and belief systems.
- * Leaders lead from the trenches, building shared understanding of common reality. *gemba*
- * Leaders shift balance from "telling" to act differently to co-creating shared positive experiences. *Developing on strengths over fixing weaknesses.*



Leading transformative change

❄ Agile leader is not a therapist:

Deeper individual structures - personally belief systems, images, “rules”, and biases are deep rooted and formed over individual’s life journey.

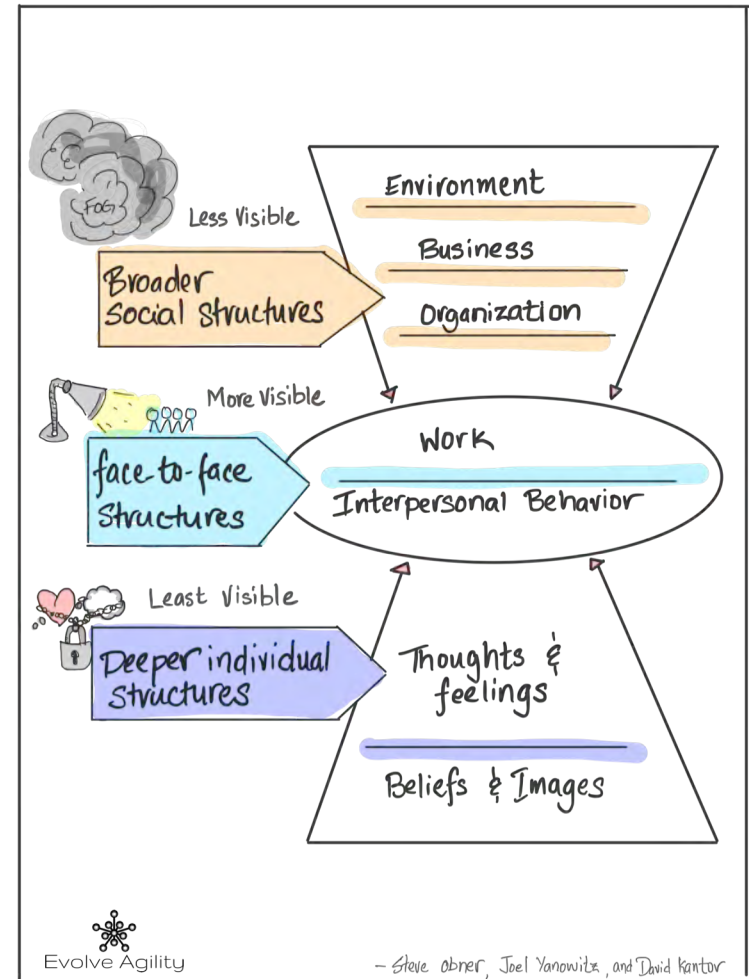
Leaders have an obligation to do no physiological harm to people under your ward.

This means recognizing situations where a person may be helped by trained professionals in such matters.

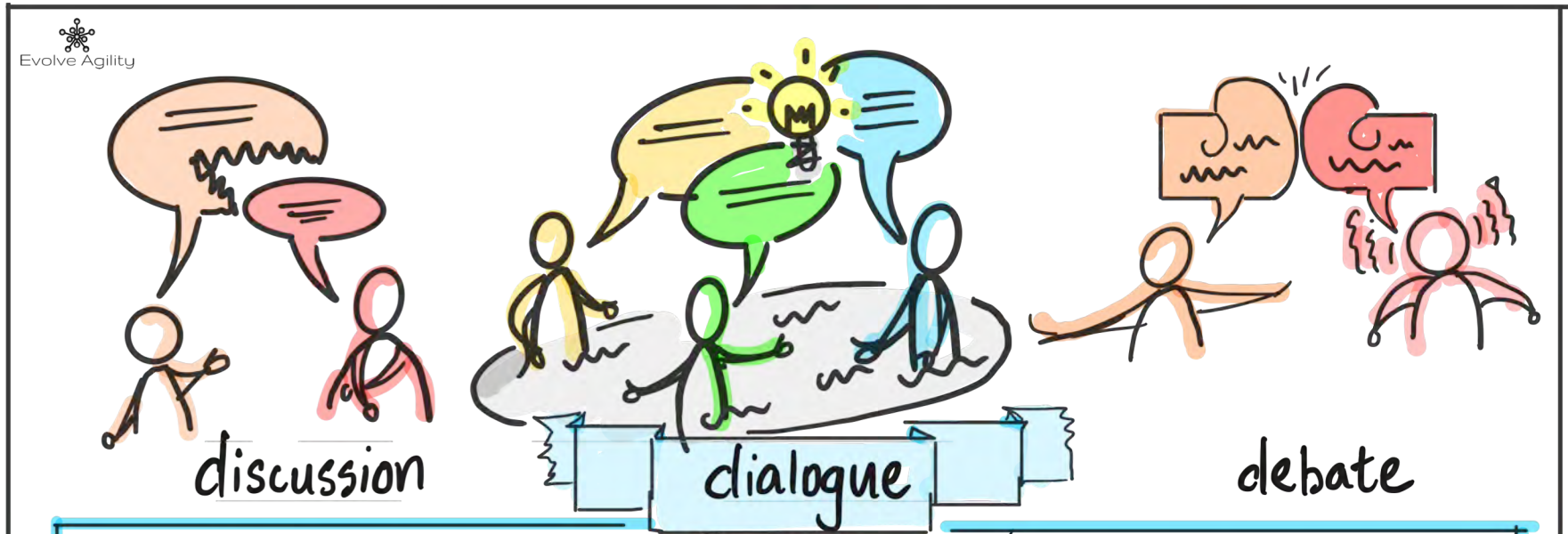
❄ Gardner’s mindset:

Paying attention to broader social structures a leader can cultivate an environment that is conducive to creating and sustaining healthy teams. Much like a good gardener pays attention to soil conditions and weather.

Which factors are you sensitively tuned to?



Leading transformative change



Learning Together

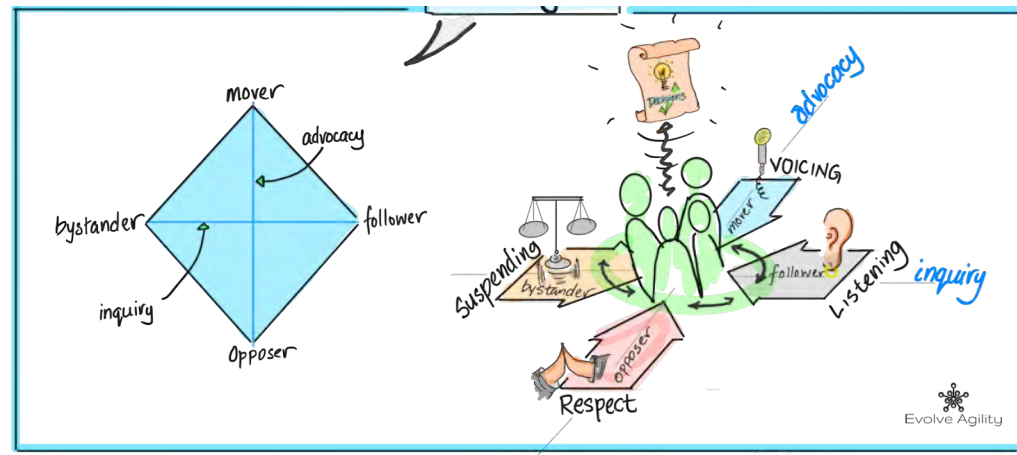
“The discipline of team learning starts with “dialogue”, the capacity of members to suspend assumptions and enter into a genuine “thinking together”. To the Greeks dia-logos meant a free flowing of meaning through a group, allowing group to attain insights not attainable individually.”

[Peter M. Senge, The Fifth Discipline.]

Leading transformative change

- * **Listening deeply:** When we don't listen, all we have is our interpretation.
- * **Voicing:** Expressing your genuine voice and helping the collective to express what is true regardless of other influences.
- * **Respecting:** Holding space for and other people's views a legitimate.
- * **Suspending:** Let go of certainties, which are rigid, non-negotiable, and limit dialogue.

Leaders create environment, where others feel empowered.



William N. Isaacs, Dialogic Leadership



Replace willpower for knowledge

<http://blog.dilbert.com/2013/11/18/goals-vs-systems/>

Q&A

Upcoming CAL Class

Dec 12-13, Houston, TX

<https://evolveagility.com/training/>

