

The Viable Systems Model and human systems dynamics through the lens of Barry Oshry's Organic Systems Model

Benjamin Taylor
Metaphorum
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Benjamin Taylor
+4479 3131 7230
benjamin.taylor@redquadrant.com

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Systems community of enquiry: www.syscoi.com

Blog: chosen-path.org / antlerboy.medium.com

systems | cybernetics | complexity
business evolutionary | avid learner

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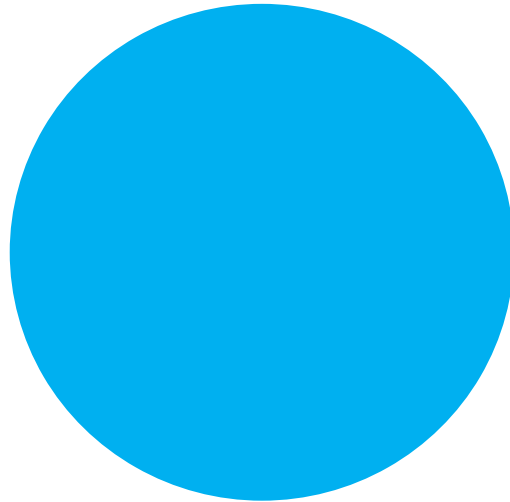


All the links are at bentaylor.com

What I'll (roughly) cover

- The blue dot!
- People and essential, fundamental aspects of organisation
- History and liberation: New Hope
- Sensemaking worlds
- The dynamics of worlds (intra and inter), and the payoff of the devil's bargain
- How come it goes the way it goes – and what else is possible?
 - Spaces and their patterns – organisational, culture
- Seeing the system
- Encounters with the other and 'robust systems'
- Management cybernetics
- Power and love in parts and in wholes
 - Five core practices
 - Development of organisations and Organisational Development

Complementary essential patterns



THE BLUE DOT



PEOPLE AND FUNDAMENTALS

A tall, narrow stone sculpture composed of many human figures stacked vertically, set against a blue sky. The figures are arranged in a way that they appear to be supporting each other, with some figures at the base looking upwards. The sculpture is made of a light-colored stone, possibly limestone or marble.

Organisations are made up of people



Sometimes
it isn't
comfortable

- **History and hope**
- Power+Systems
- Systems **blindness** and systems **sight**,
reflexive action and **reflective** action

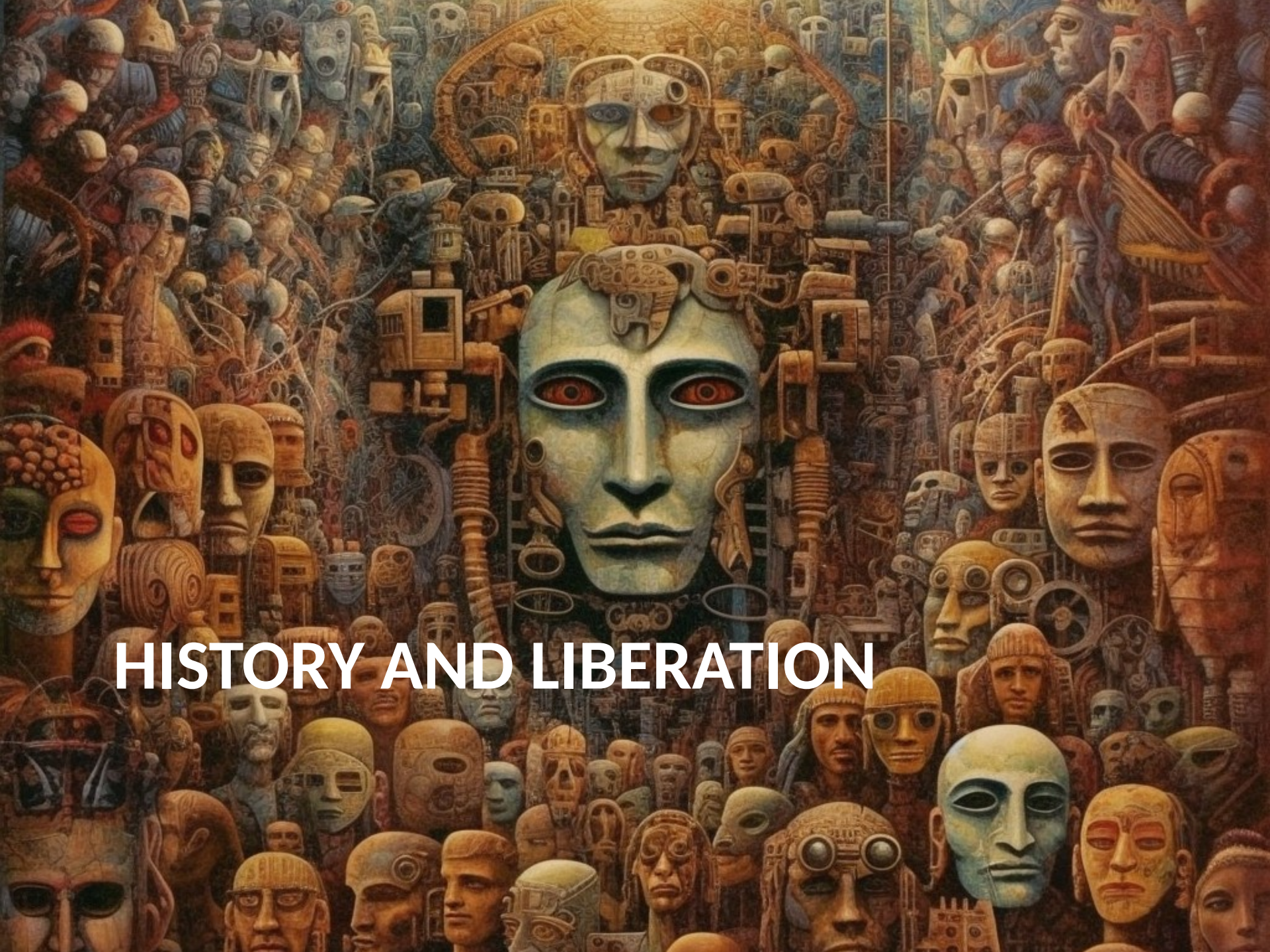
There Is No New Scientific Paradigm...Yet

(Toward a Most Practical Science of Social System Life)

by Barry Oshry

...despite the frequent references to paradigms and paradigm shifts in the management and organization literature, there are no new paradigms as Thomas Kuhn has described in his landmark essay... to make the case for the Oshry Power+Systems Framework being a legitimate candidate for paradigm status, one from which research extending, elaborating, testing, and applying the framework follows naturally.

'the only scientific paradigm of management systems so far?'



HISTORY AND LIBERATION

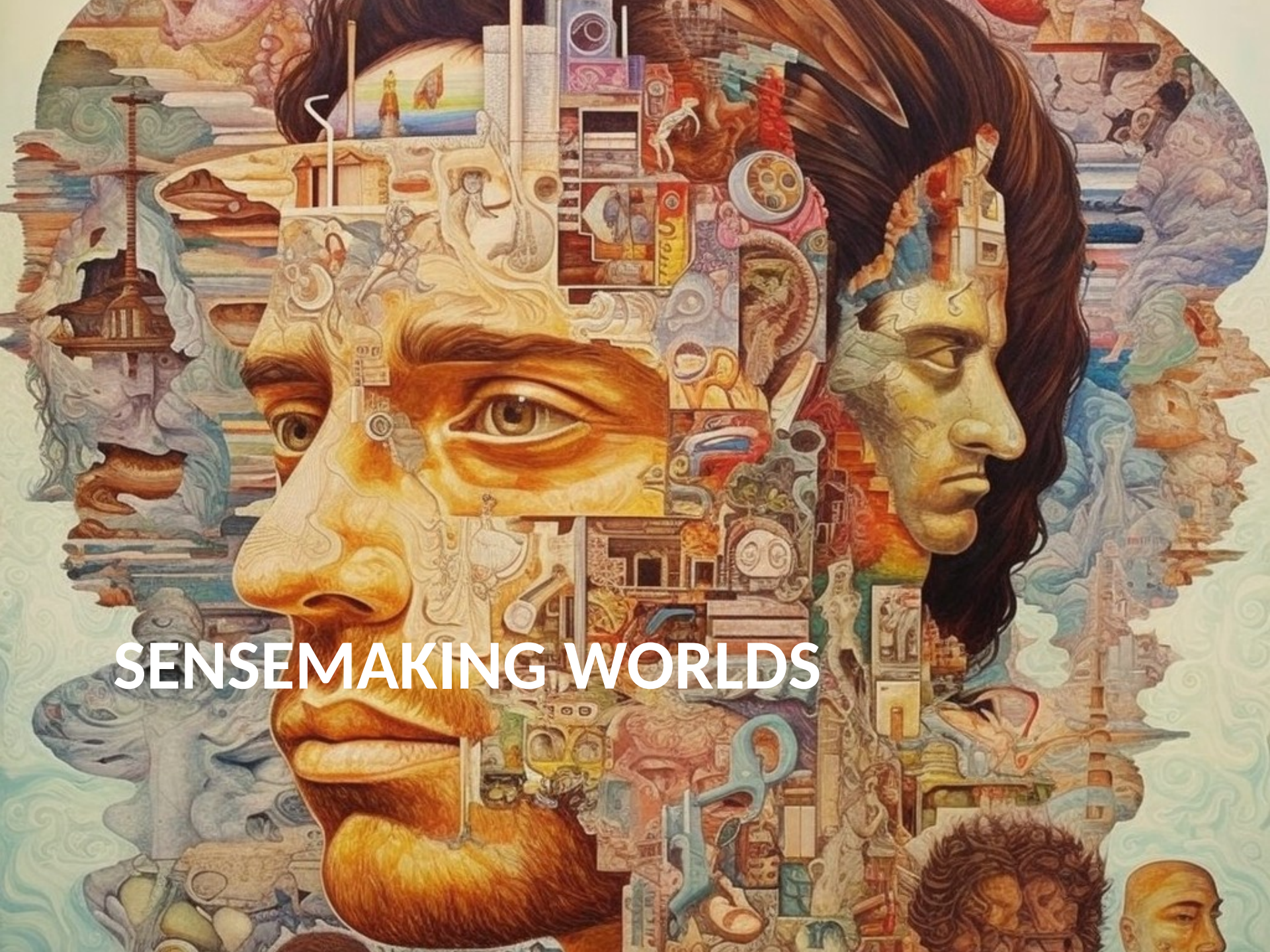
History and hope

- American working class Jewish immigrants in the 1930s
- The Holocaust (age 13 in 1945)
- PhD
- Tikkun Olam
- National Training Laboratories
 - Kurt Lewin et al
 - Betty Friedan (The Feminine Mystique)
 - Elaine Brown (A Taste of Power)
- The 60s
- The Power Lab
- The Organization Workshop
- When Cultures Meet / Encounters with the Other

Human possibilities

New Hope...





SENSEMAKING WORLDS

Customer



Customer



Top

Middle

Bottom

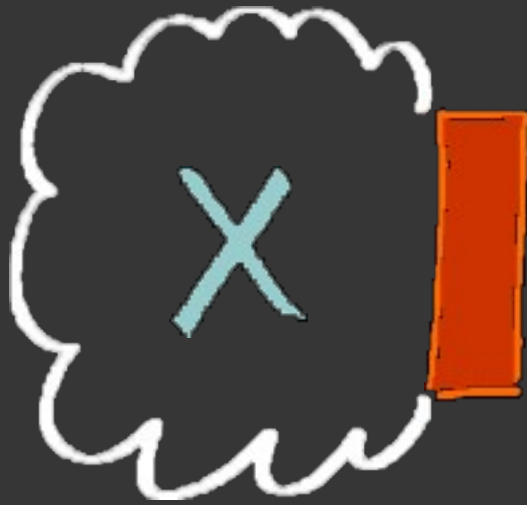
Customer



Customer



In an organisation, we
don't know what is
happening in other
people's worlds



First rule of organisational life:

'Stuff' happens!!!

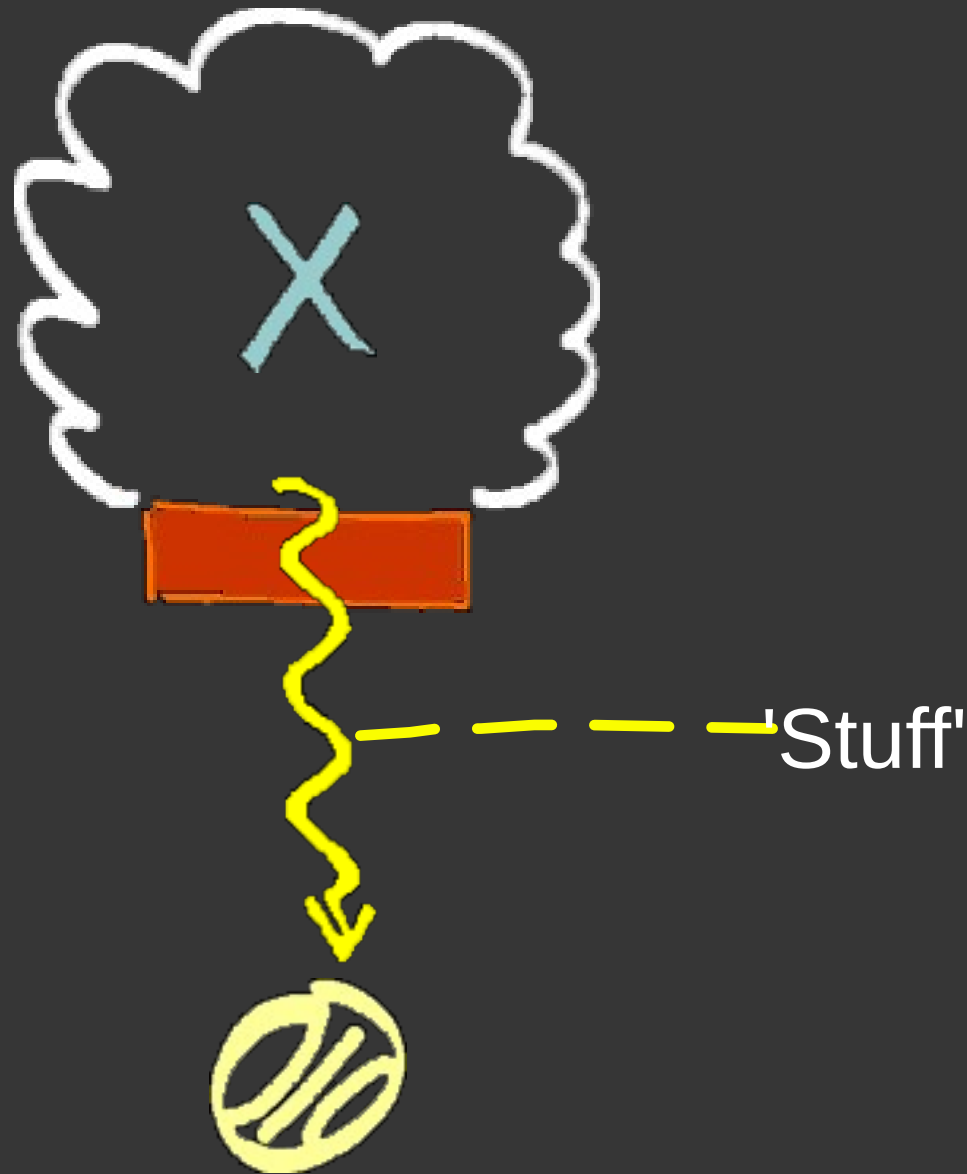
sometimes **good**
stuff...

sometimes **bad**
stuff...

sometimes
mysterious stuff...

sometimes **bad and**
mysterious stuff...

sometimes nothing:
minus stuff...



When **stuff** happens, we **react**:

🗨️ Make up a story

Evaluate the others

Malicious

Insensitive

Incompetent

Take it personally

React

Get mad

Get even

Withdraw

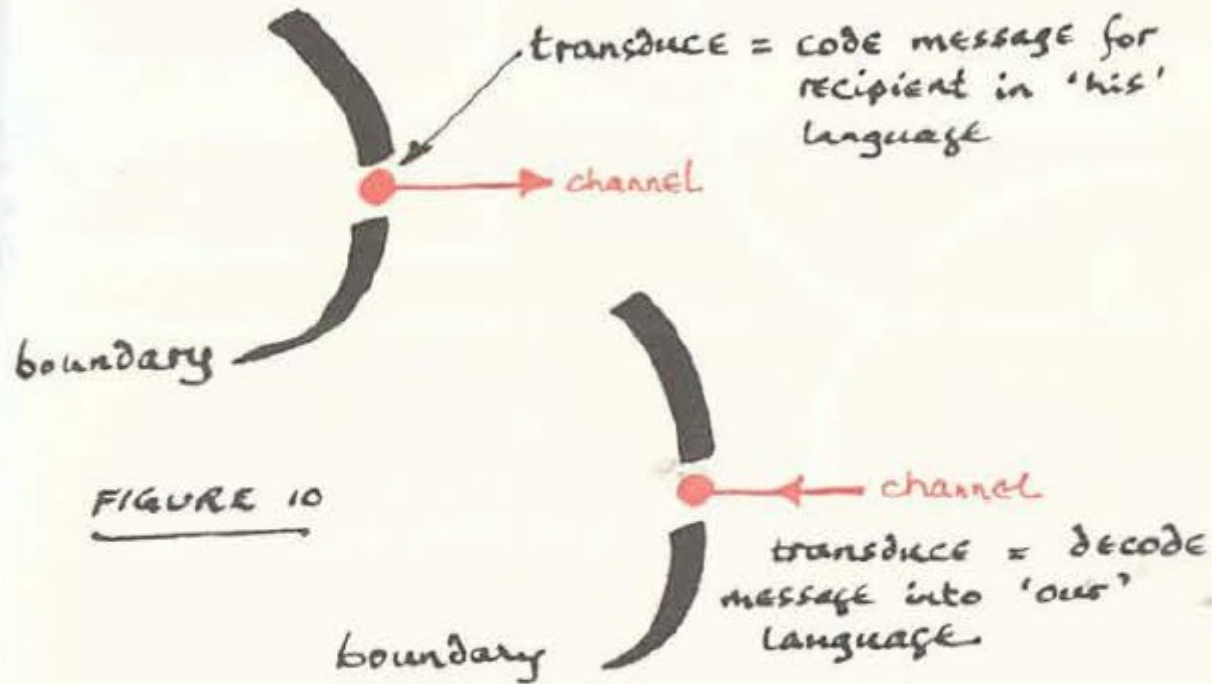
Lose focus

Partnership

(What role do we give
ourselves in our stories?)



TRANSDUCTION is the word we need: 'leading across'. Each red blob is a *transducer*, and it has this function:



The Third Principle of Organization

Wherever the information carried on a channel capable of distinguishing a given variety crosses a boundary, it undergoes transduction; the variety of the transducer must be at least equivalent to the variety of the channel.

STAFFORD **BEER**



**DIAGNOSING THE
SYSTEM**
FOR
ORGANIZATIONS

What the Frog's Eye Tells the Frog's Brain*

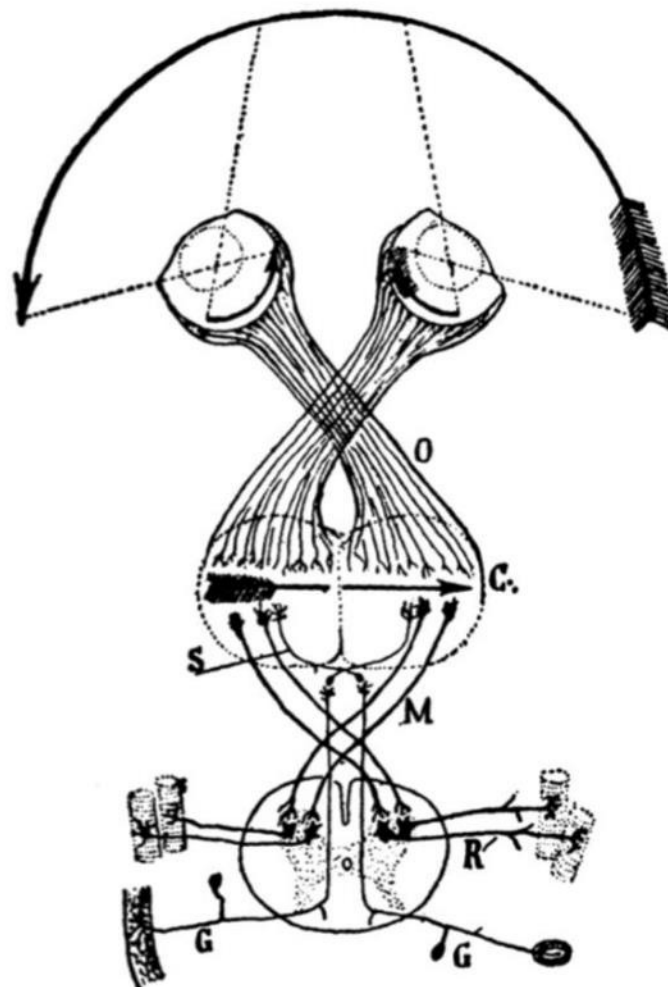
J. Y. LETTVIN†, H. R. MATURANA‡, W. S. McCULLOCH||, SENIOR MEMBER, IRE,
AND W. H. PITTS||

Summary—In this paper, we analyze the activity of single fibers in the optic nerve of a frog. Our method is to find what sort of stimulus causes the largest activity in one nerve fiber and then what is the exciting aspect of that stimulus such that variations in everything else cause little change in the response. It has been known for the past 20 years that each fiber is connected not to a few rods and cones in the retina but to very many over a fair area. Our results show that for the most part within that area, it is not the light intensity itself but rather the pattern of local variation of intensity that is the exciting factor. There are four types of fibers, each type concerned with a different sort of pattern. Each type is uniformly distributed over the whole retina of the frog. Thus, there are four distinct parallel distributed channels whereby the frog's eye informs his brain about the visual image in terms of local pattern independent of average illumination. We describe the patterns and show the functional and anatomical separation of the channels. This work has been done on the frog, and our interpretation applies only to the frog.

INTRODUCTION

Behavior of a Frog

A FROG hunts on land by vision. He escapes enemies mainly by seeing them. His eyes do not move, as do ours, to follow prey, attend suspicious events, or search for things of interest. If his body changes its position with respect to gravity or the whole visual world is rotated about him, then he shows compensatory eye movements. These movements enter his hunting and evading habits only, *e.g.*, as he sits on a



How *Much* the Eye Tells the Brain

Kristin Koch,¹ Judith McLean,¹ Ronen Segev,²
Michael A. Freed,¹ Michael J. Berry II,²
Vijay Balasubramanian,³ and Peter Sterling^{1,*}

¹Department of Neuroscience
University of Pennsylvania
Philadelphia, Pennsylvania 19104

²Department of Molecular Biology
Princeton University
Princeton, New Jersey 08544

³Department of Physics
University of Pennsylvania
Philadelphia, Pennsylvania 19104

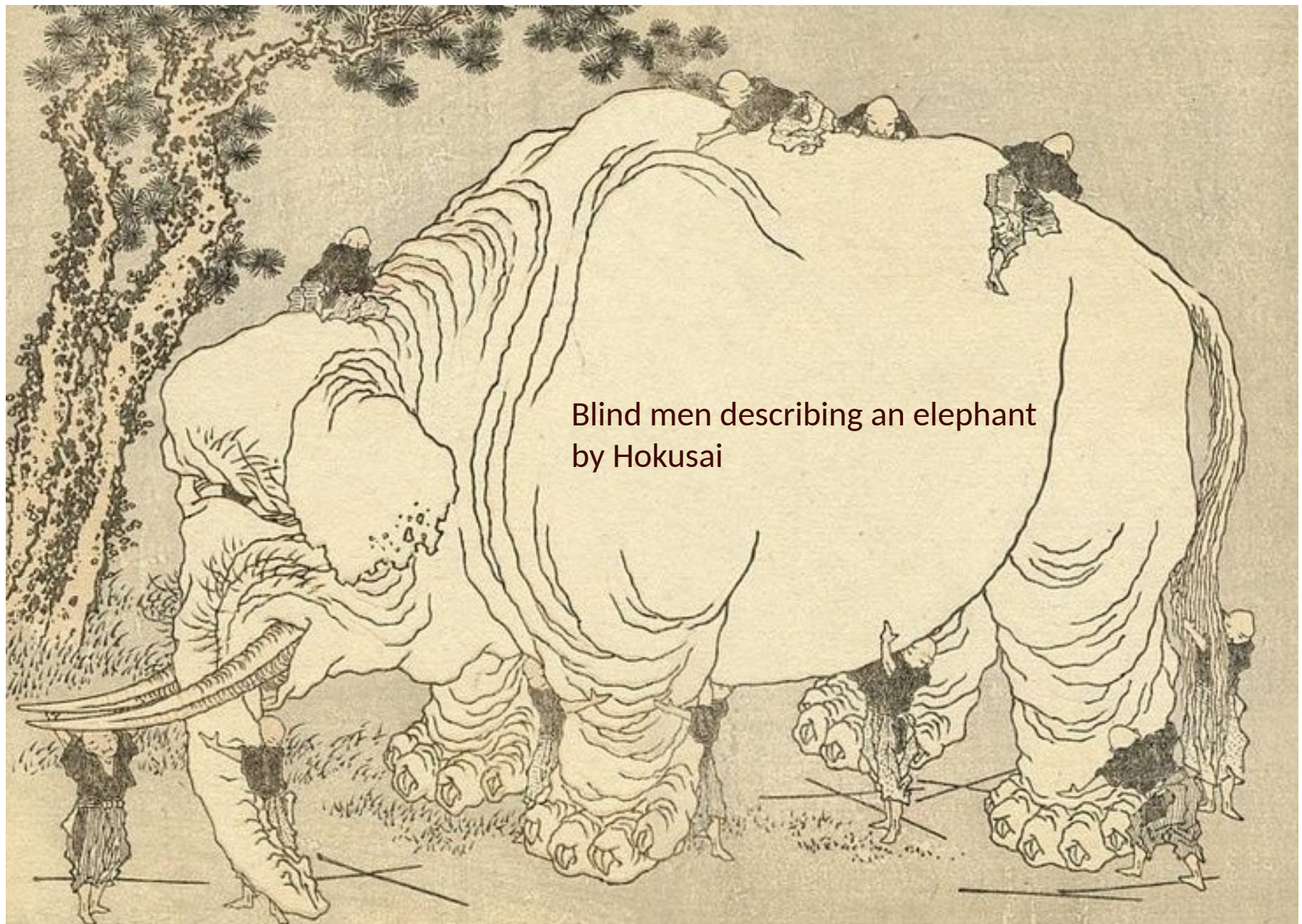
Summary

In the classic “What the frog’s eye tells the frog’s brain,” Lettvin and colleagues [1] showed that different types of retinal ganglion cell send specific kinds of information. For example, one type responds best to a dark, convex form moving centripetally (a fly). Here we consider a complementary question: how *much* information does the retina send and how is it apportioned among different cell types? Recording

motion, and fixational eye movement. For these stimuli, the intensity distributions and the spatial and temporal spectra differed strikingly from white noise (Figure 1). Instead, like the distributions typical of natural images, they were skewed toward low intensities and low spatial and temporal frequencies.

Responses Depended on Cell Type

Various cell types were recorded simultaneously on a multi-electrode array [7] or singly with a loose patch electrode [2] and identified by their characteristic reverse correlograms and autocorrelograms (see Figure S1 in the Supplemental Data available with this article online) [8–10]. Comparing responses to a given stimulus across seven cell types, we found a characteristic response pattern for each type (Figure 2). For example, in response to the saccade stimulus, brisk-transient cells (both ON and OFF) fired spike bursts that peaked high in the PSTH ($>300 \text{ spikes} \cdot \text{s}^{-1}$), whereas brisk-sustained cells (both ON and OFF) peaked lower ($\sim 150 \text{ spikes} \cdot \text{s}^{-1}$) and fired for longer periods (Figure 2). ON-OFF direction-selective cells fired with low jitter in spike timing across trials, whereas local-edge cells fired with considerable jitter (Figure 2 saccade, standard deviation of



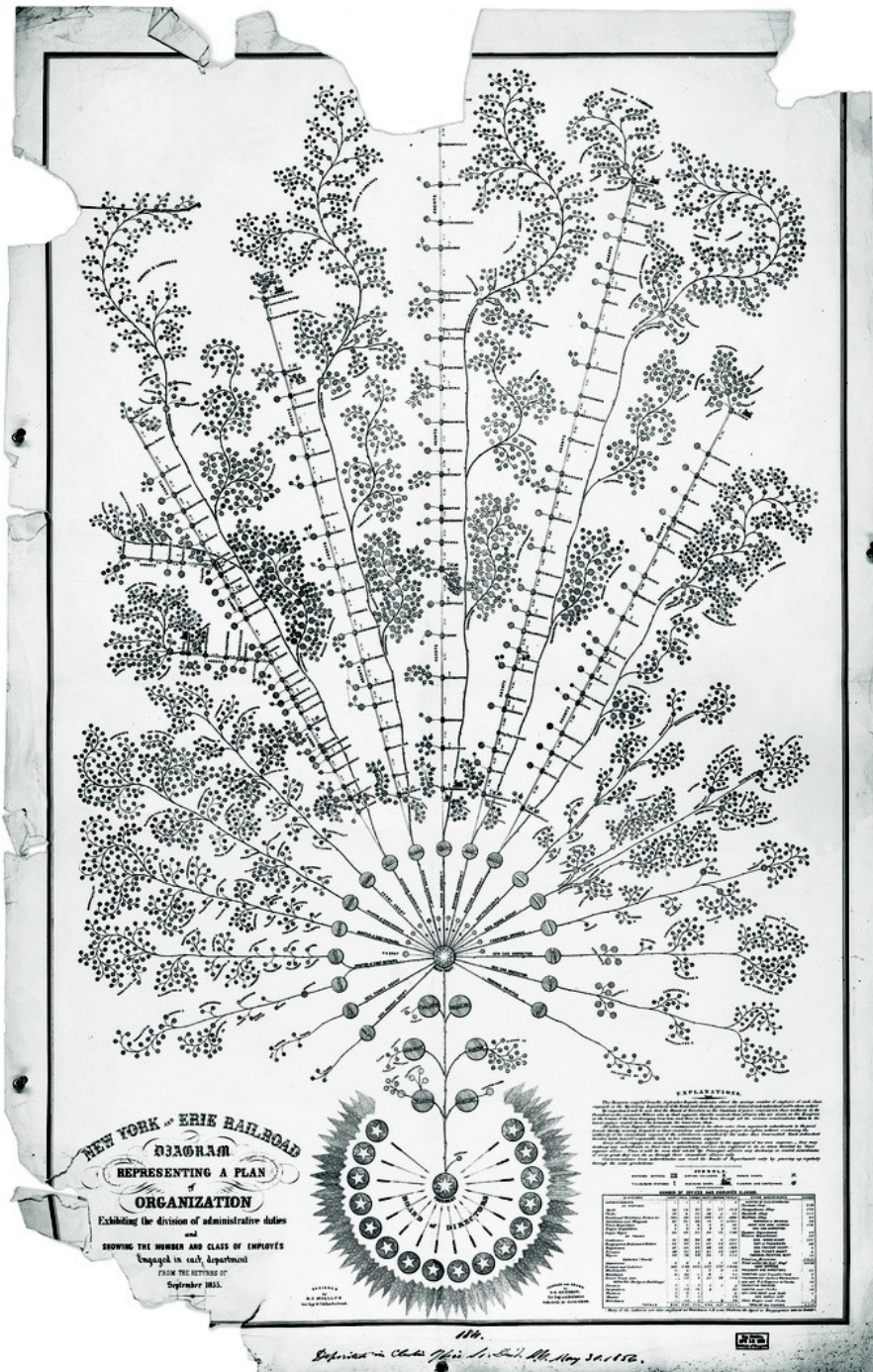
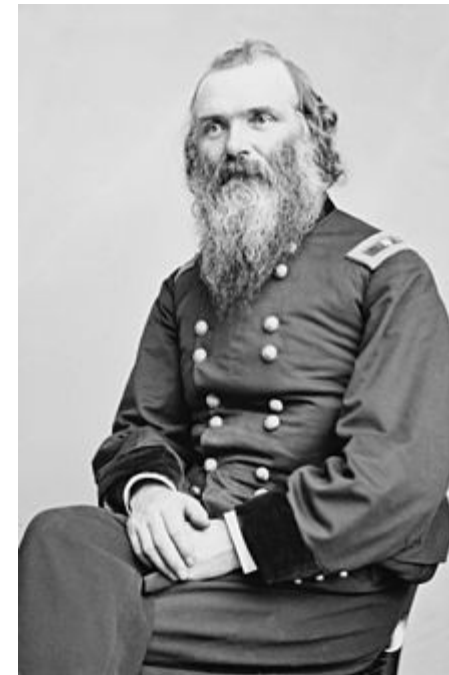




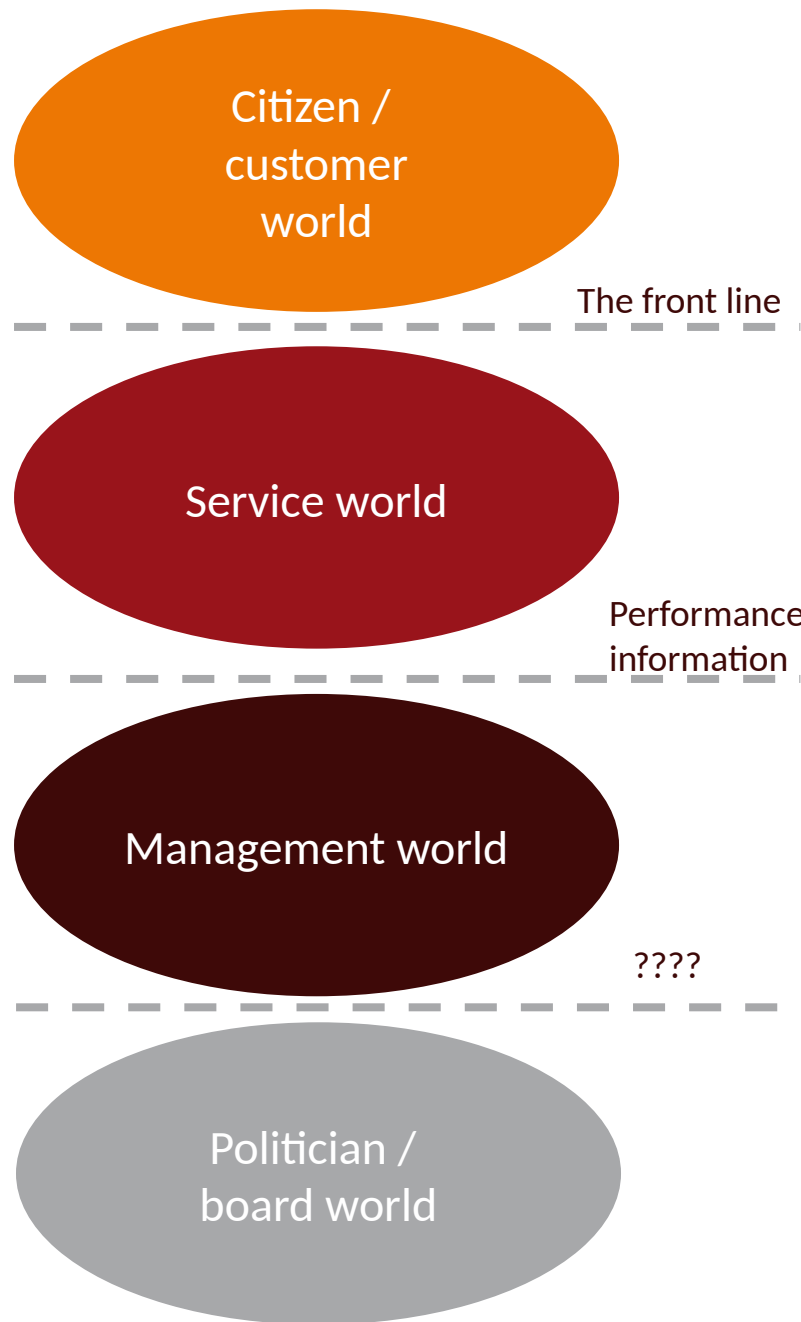
'a plan of organization'
Daniel McCallum
general superintendent
New York and Erie Railroad ('the Erie')
1855

six principles:

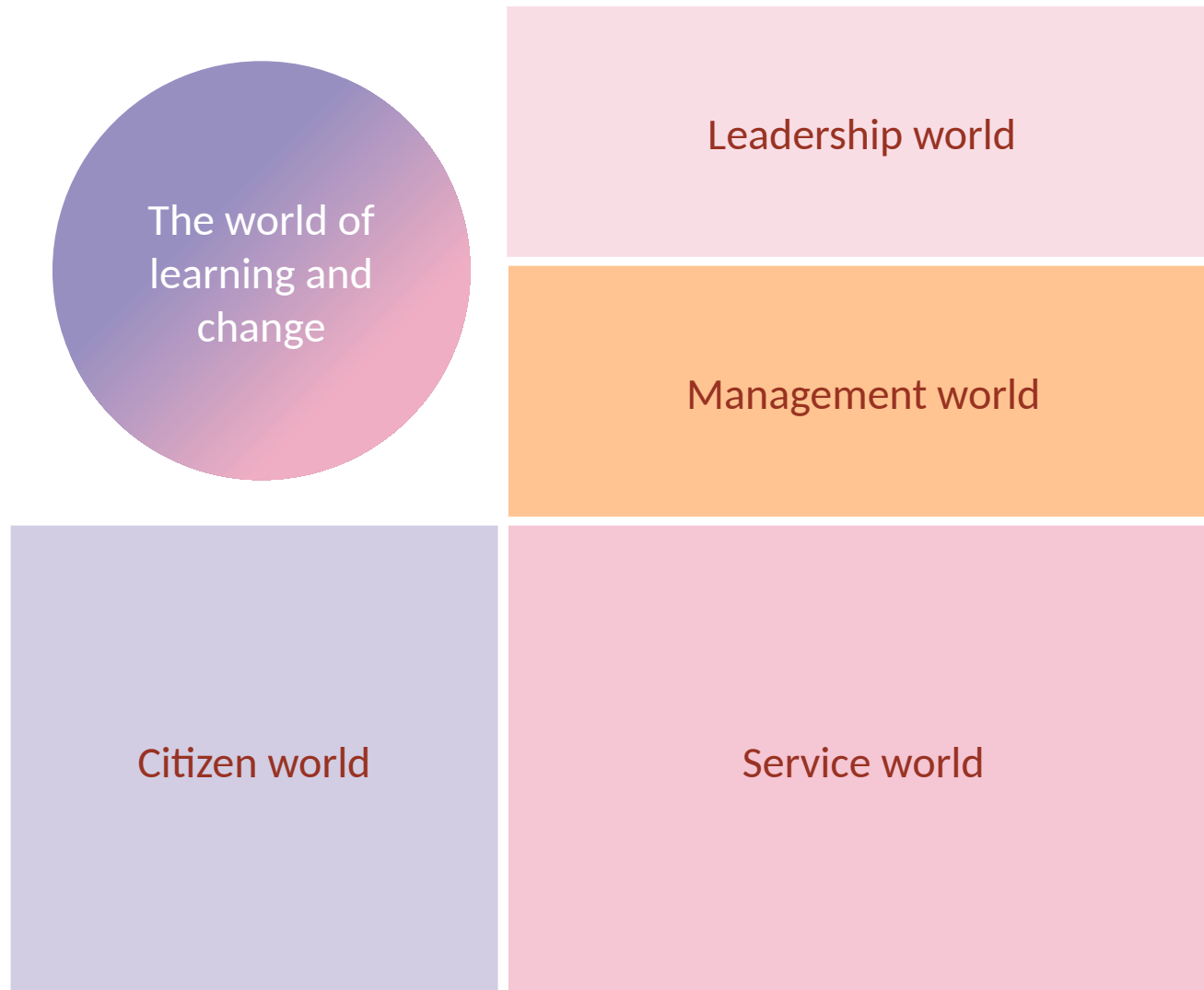
1. A well-defined structure of responsibilities.
2. Strategic and sufficient assignment of power to managers so that they may dispose of their duties.
3. A method of tracking if duties are carried out on time or not.
4. An emphasis on reporting any breakdown of discipline or dereliction of duty so that it may be immediately corrected.
5. A method of obtaining reports that will neither diminish nor overpower managers down the value chain.
6. A method for helping managers identify both errors and delinquents.

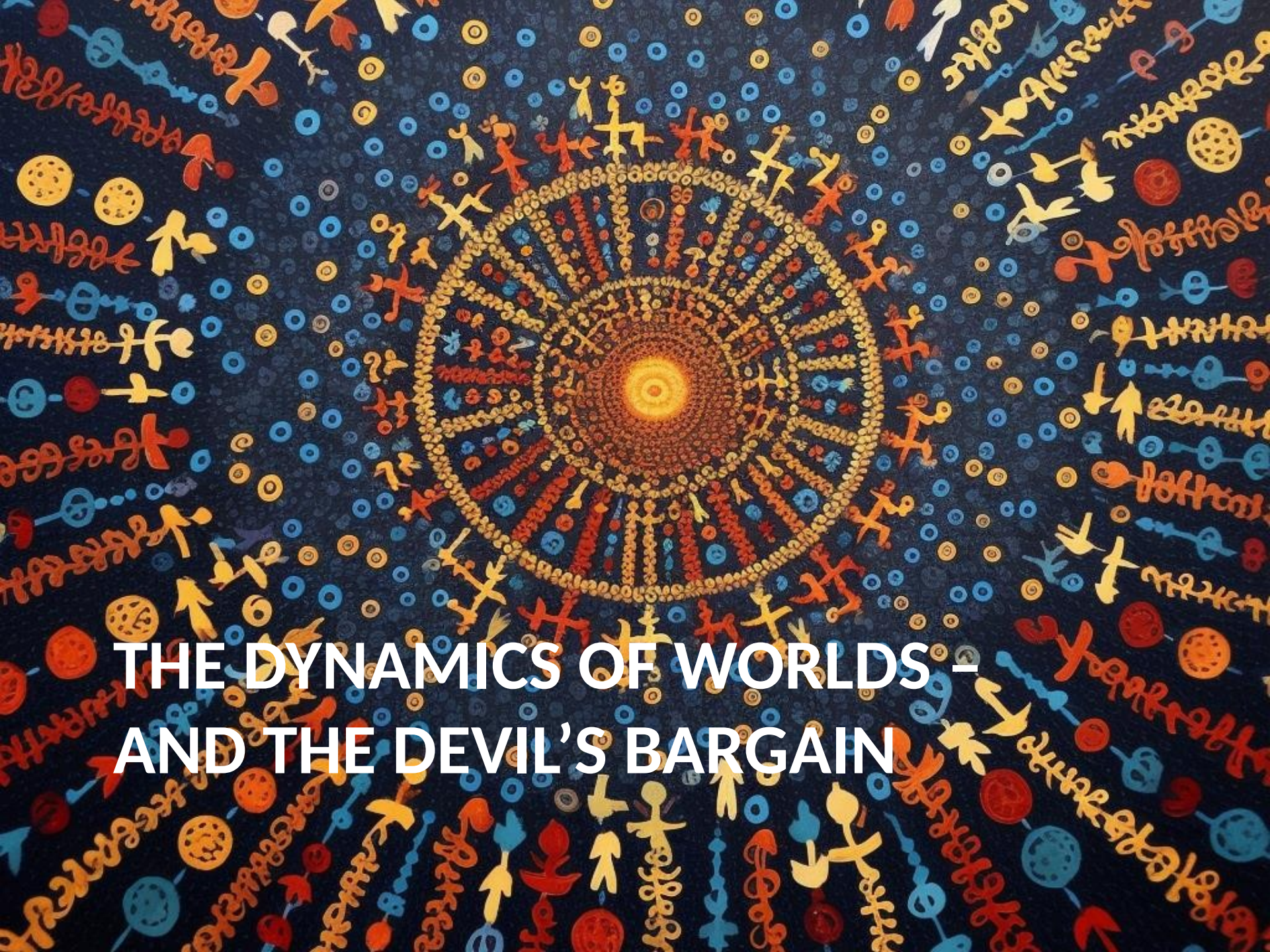


Worlds matter



Five worlds





THE DYNAMICS OF WORLDS – AND THE DEVIL'S BARGAIN

Customer



Customer



Top

Middle

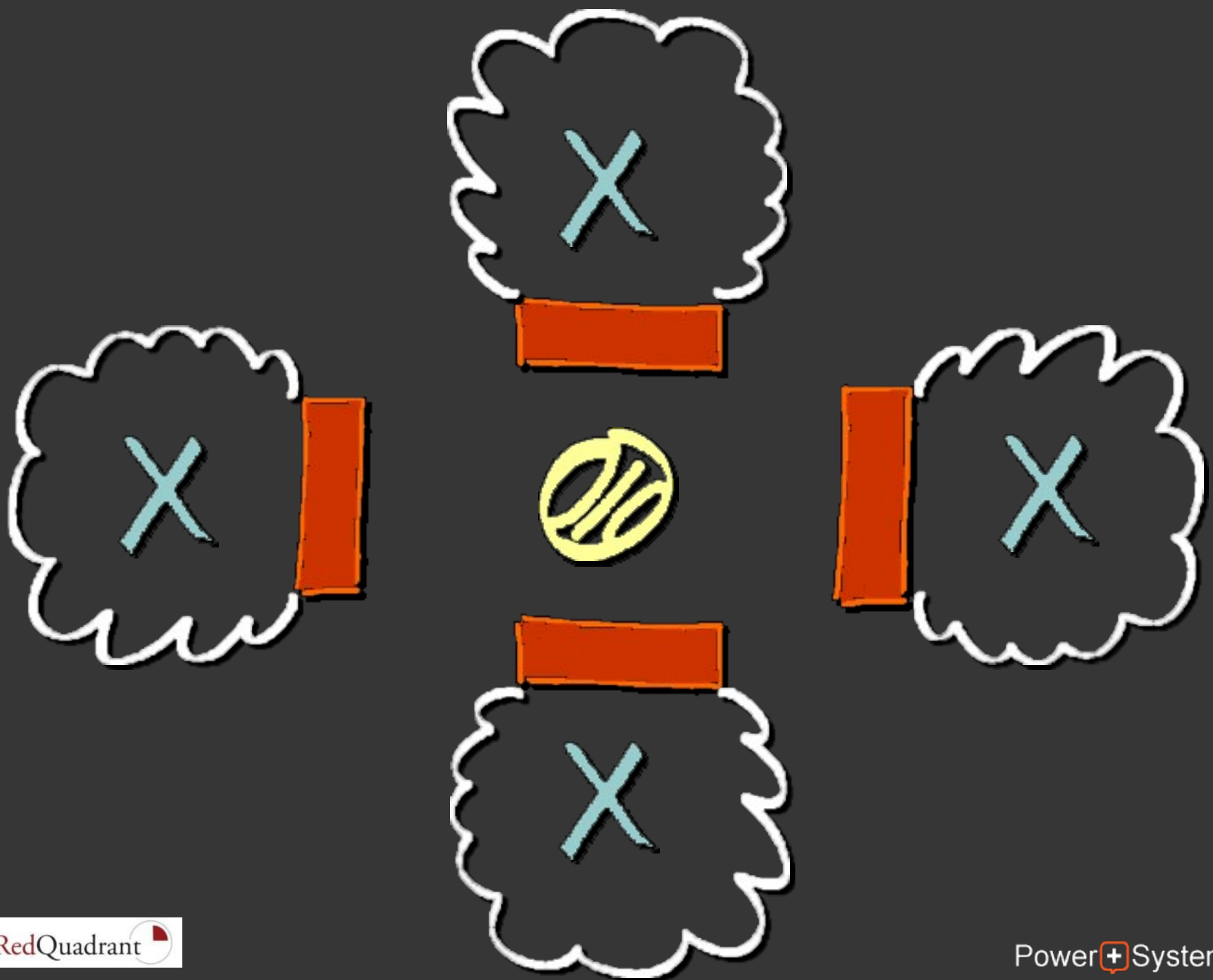
Bottom

Customer



Customer





'Stuff'
Happens!!!

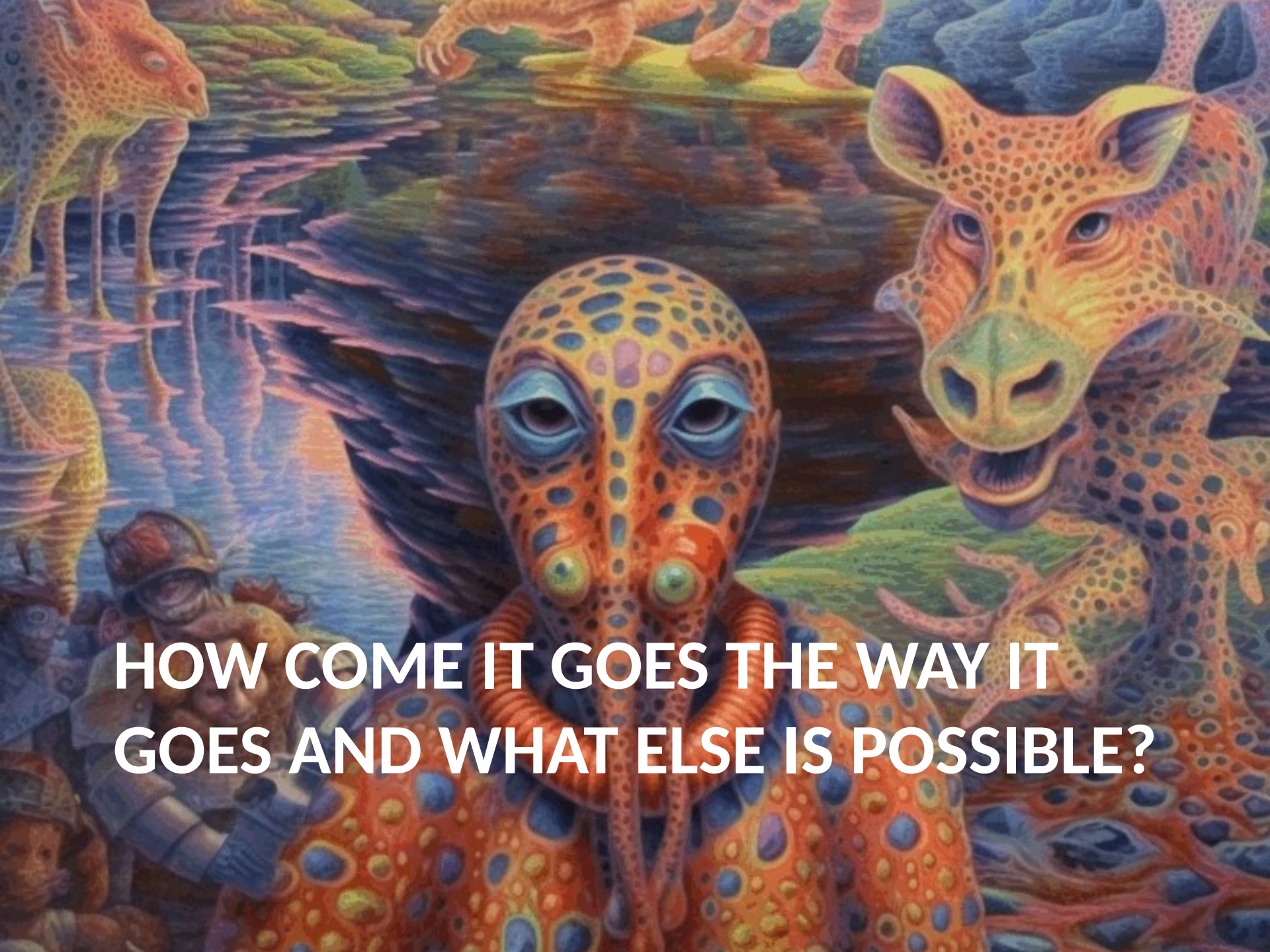
When stuff happens, we react:

- + Make up a story
- + Evaluate the others
 - Malicious
 - Insensitive
 - Incompetent
- + Take it personally
- + React
 - Get mad
 - Get even
 - Withdraw
- + Lose focus
- + Partnership



The side show is predictable,
but not inevitable.

The center ring is not predictable,
but it is a human possibility.



**HOW COME IT GOES THE WAY IT
GOES AND WHAT ELSE IS POSSIBLE?**

Tops... live in a world of complexity and accountability.

How will inputs likely be received in top world?

As more **complication**.

And how are we likely to react?

By **falling out of partnership**

Middles live in a world where they are **torn** between top and bottom.

How will inputs likely be received in middle world? **More tearing**

And how are we likely to react?

By **falling out of partnership**

Bottom world is a world of **vulnerability**.

How will inputs likely be received in bottom world?

As more **'being done to'**.

And how are we likely to react?

By **falling out of partnership**

Customers live in a world of neglect.

How will inputs likely be received in customer world?

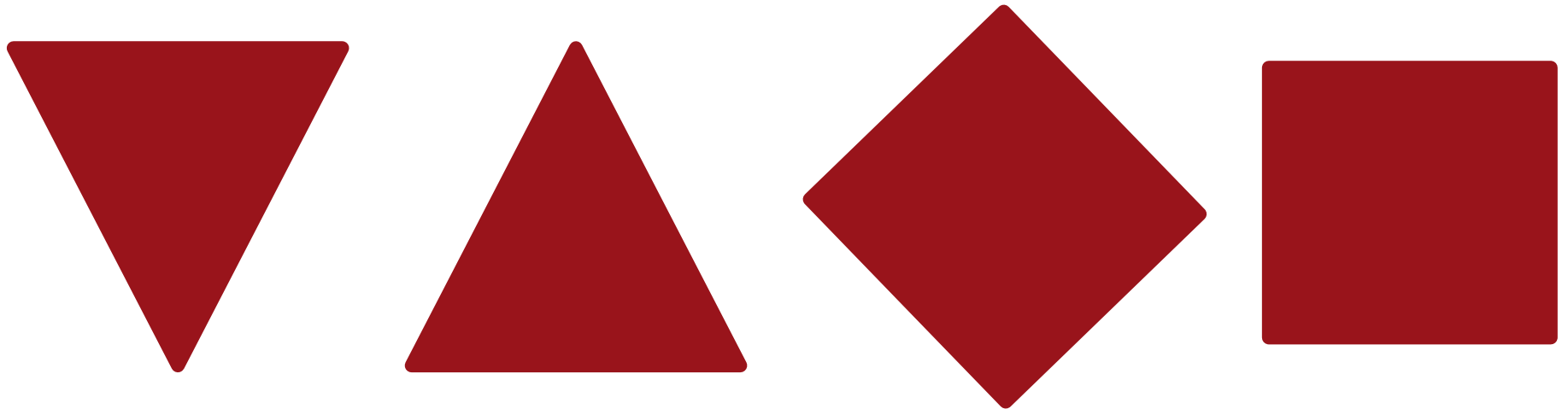
As **an irrelevant insult**.

And how are we likely to react?

By **falling out of partnership**

These are relational not role-based

Which pattern of top/middle/bottomness is your life usually in?



But of course roles shape patterns of interactions!

How come it goes the way it goes?

Predictable condition	Predictable response	Familiar realities	Leadership stands
Top overload	 Suck it up	Burdened by circumstances	Be a top who creates responsibility throughout the organisation
Bottom disregard	 Hold them responsible	Oppressed by them	Be a bottom who takes on responsibility not only for your condition but for the whole thing
Middle crunch	 Slide in between and get torn	Torn between them and them	Be a middle who maintains your independence of thought an action
Citizen neglect	 Stay aloof and hold it responsible	Righteously screwed by the delivery system	Be a citizen who gets in the middle of delivery processes and helps them work for you
Helper ignorance and multiple expectations	 To be of immediate value as expert of servant	Abused and misused	Say no to being of immediate value. Develop a co-learning relationship

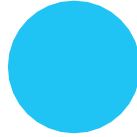
And what else is possible?

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The space of service

Predictable Condition	Predictable Response (DOOR A)	Familiar Disempowering Experience	DOOR B
Ignorance (There is much about this system that I do not understand.) Multiple Expectations (There are likely to be lots of different people with lots of different agendas.)	To be of immediate value as either: ‘Expert’ (I am the solution to your problems, the answer to your prayers.) Or ‘Servant’ (You ask, I do.)	Abused and Misused	Say no to being of immediate value. Develop a co-learning relationship with the Customers. (Using your separate areas of expertise.)

Is the blue dot stuck in one place?



In the dance of responsibility, look out for the old familiar patterns.

Am I feeling:

Overwhelmed? Am I being Top – taking on all the responsibility and disabling the system?



How can I change the responsibility dance?

Disappointed, angry, resentful at 'them'? Am I being Bottom – holding them responsible, holding myself outside the system?



How can I make this a project I can take on?

Unsupported? Am I an End and holding the Middle responsible for solving the problem I have with the other End?



How can we do it ourselves?

Can't please anyone? Maybe I'm a Middle, taking responsibility for THEIR problems?



How can I maintain my independence of thought and action, and help them to sort out their problems?

Unfairly judged? Am I taking responsibility for making the Customer happy?



How can I involve them more in their delivery process?

Neglected and done to? Righteously screwed? Have I abandoned all personal responsibility for getting the service I want?



How can I get more involved in helping the system give me what I need?

The background of the slide is a dense, colorful illustration of a network. It features numerous stylized human figures in various colors (orange, green, blue, yellow, red, and grey) of different sizes. These figures are interconnected by a complex web of thin, brown lines, creating a sense of a large, interconnected system or community. The overall style is abstract and artistic, with a focus on the relationships between the individual nodes.

SEEING THE SYSTEM

The possibility of a systemically informed approach

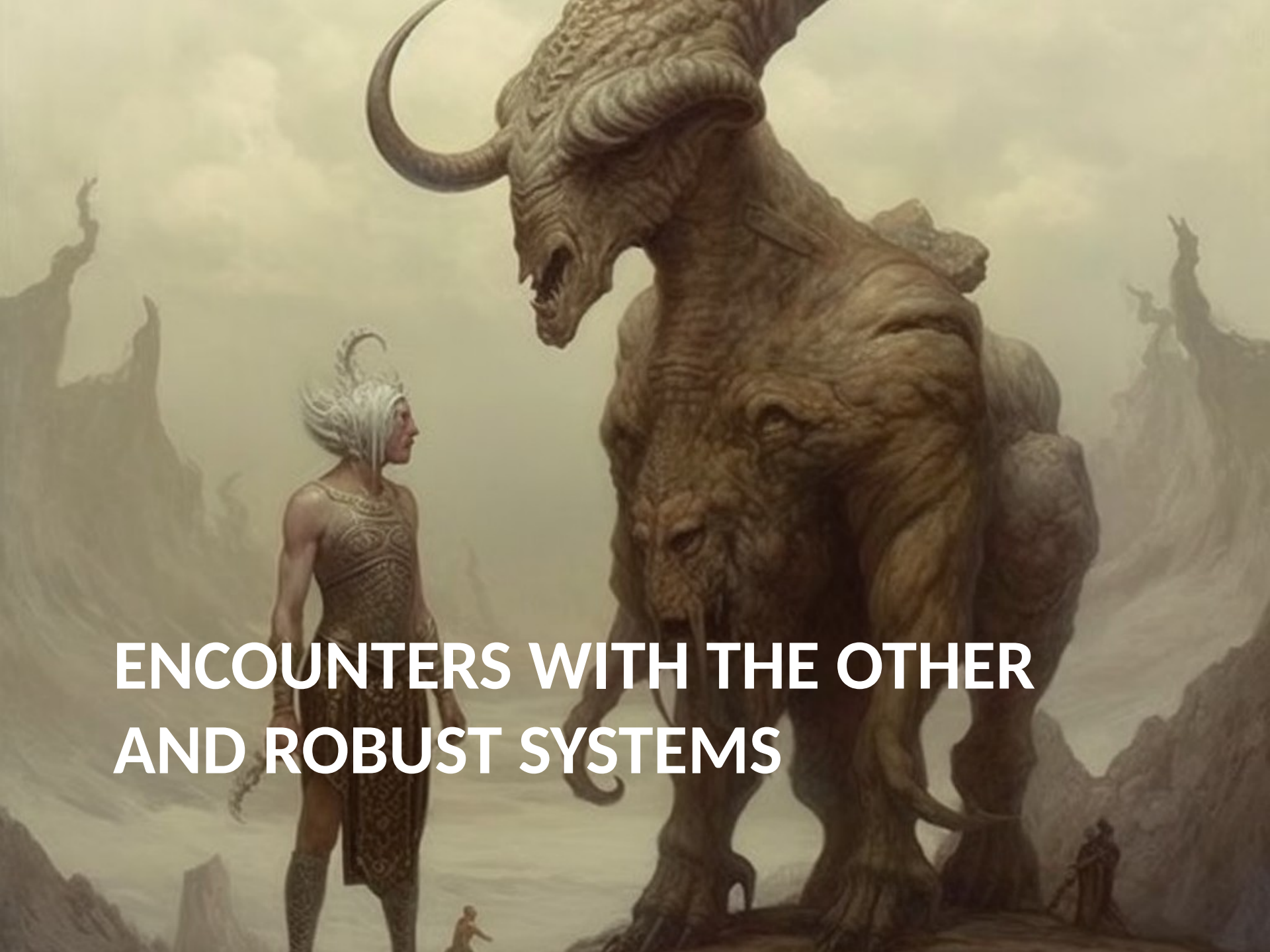
If you can see the system, three levels of systems intelligence are possible:

1. Tactical
understand their world, don't take it personally, emotional intelligence
2. Strategic
make your request such that it makes their world easier
3. Systemic
make the future relationships between your worlds better in future

Reflection:

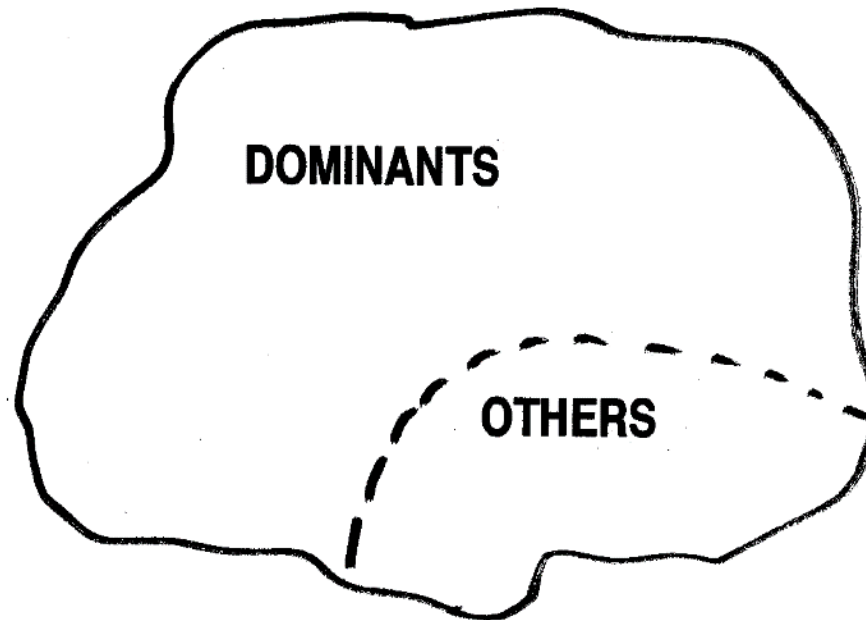
- What is the appeal of the side show?
- What are the system consequences of the side show?
- What do we have to give up, let go of in order to move from the side show to the center ring?

Why isn't it easy?

A dramatic illustration of a Minotaur and a Minotaur Slayer in a mythological landscape. The Minotaur, a large, muscular creature with a bull's head and horns, stands on the right, its mouth open in a roar. The Minotaur Slayer, a man with a white, feathered headdress and a patterned tunic, stands on the left, looking up at the creature. The background features jagged, rocky cliffs and a cloudy sky. The text "ENCOUNTERS WITH THE OTHER AND ROBUST SYSTEMS" is overlaid in the center.

ENCOUNTERS WITH THE OTHER AND ROBUST SYSTEMS

The dominants and the others



The predictable condition – the predictable response – the familiar disempowering experience... arguably even worse consequences

DOMINANCE SYSTEMS Tension of preserve/protect and allow/adapt. Both ultimately sterile.	• evaluated • feared • defended against • controlled
ROBUST SYSTEMS Dynamic balance of adaption, stability, autonomy, and integration	• studied • welcomed • valued • utilized



Differentiate

- Use the strengths of the differing cultures.



Homogenize

- Actively learn about one another's cultures.
- Share knowledge, best practices.
- Incorporate aspects of one another's cultures.



Individuate

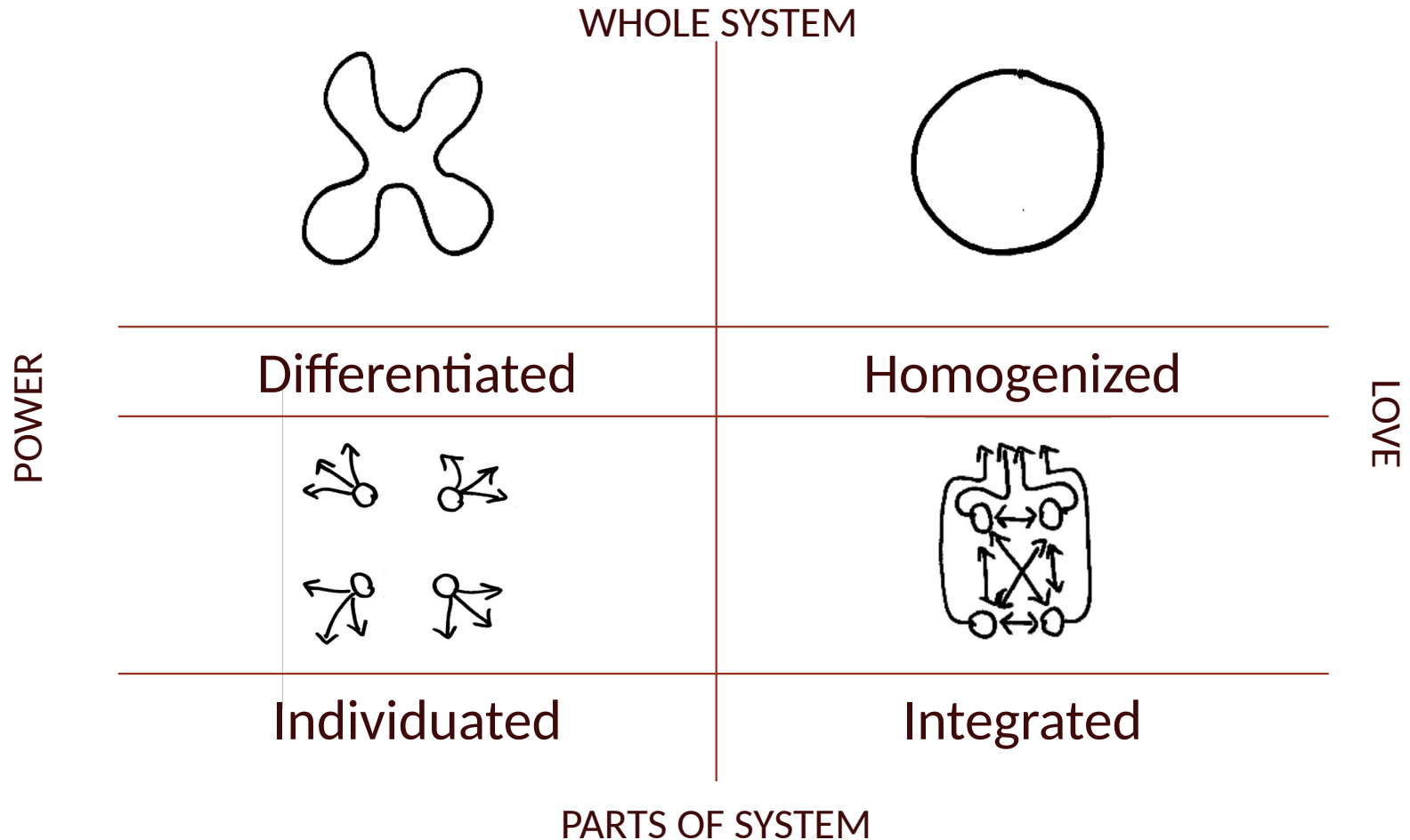
- Put your unique talents on the line.
- Identify and encourage the full use of all members' gifts and talents.



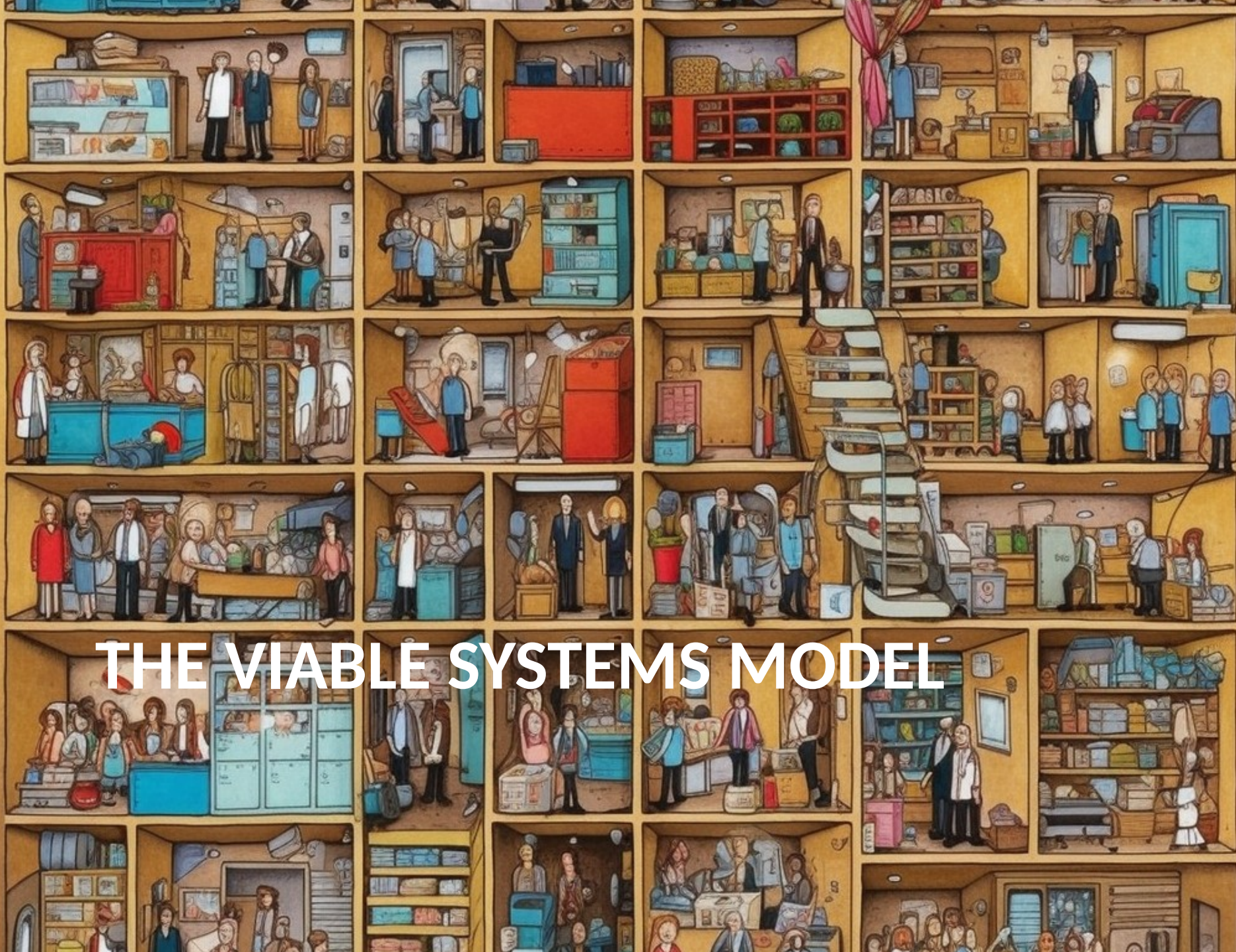
Integrate

- Create a compelling system mission.
- Feed and support one another.
- Modulate behavior in the service of the whole.

Robust systems are those that balance



Barry Oshry, Organic Systems Framework



THE VIABLE SYSTEMS MODEL

Stafford Beer's Viable Systems Model

MANAGERIAL IMPLICATION. Organizational effectiveness is a function of the balance maintained along two dimensions:

1. **Autonomy** of organizational units versus **integration** of the business as a whole.
2. **Stability** of operations versus **adaptation** to changing conditions.

NOTES

Too much **autonomy** of organizational units results in lack of overall purpose, loss of cohesion and synergy, loss of identity, and typically generates a demand for 'centralization'.

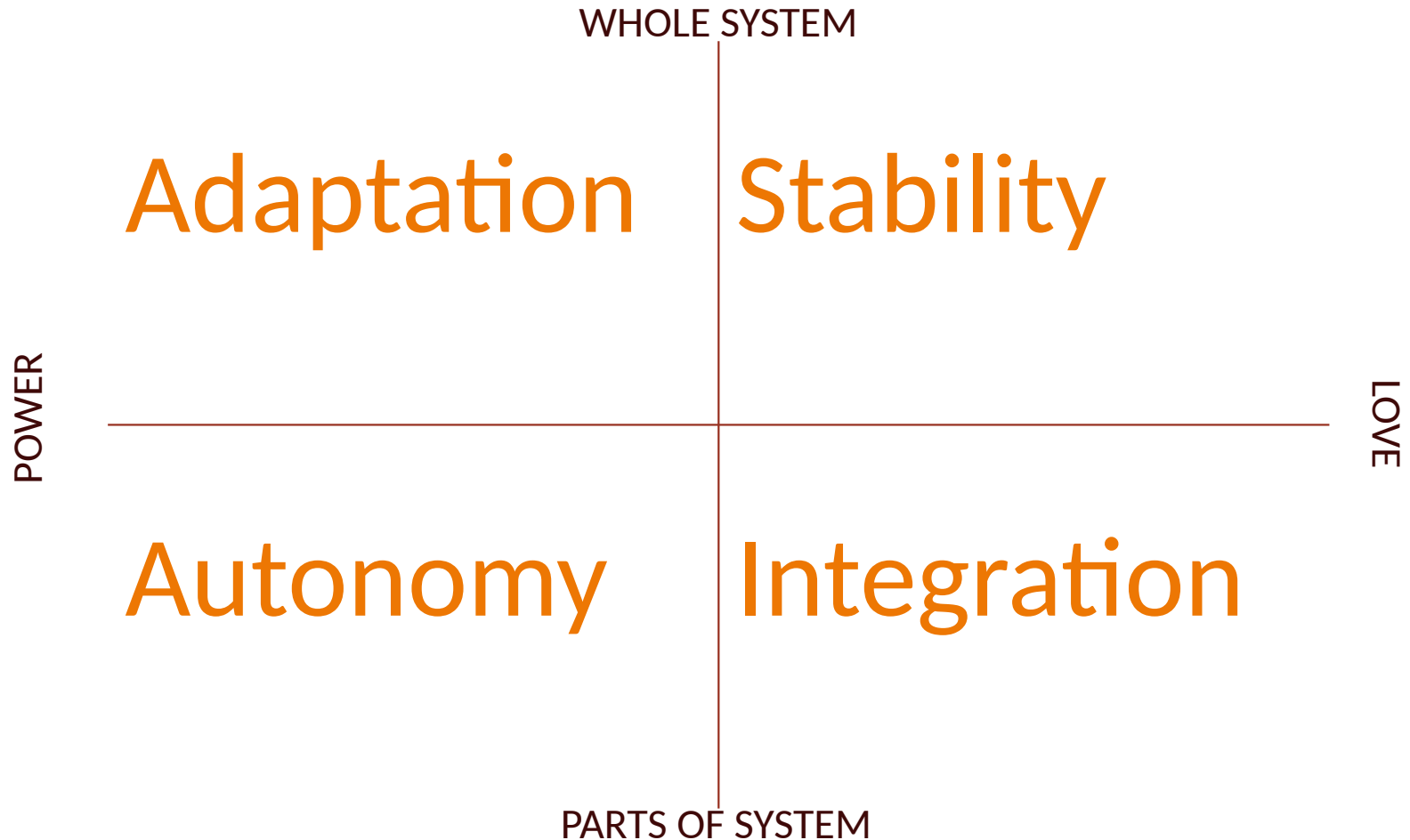
Too much **integration** results in loss of flexibility and initiative by the units, much red tape, loss of morale in the units, and typically generates a demand for 'decentralization'.

Too much **stability** results in an organization that is increasingly obsolete.

Too rapid a pace of **adaptation** results in chaos and massive inefficiency.

Cybernetics: A New Management Tool – Barry Clemson, 1984

Viable systems balance



Stafford Beer

**POWER AND LOVE
IN PARTS AND IN WHOLE**

Robust systems are those that actively balance

Power, adaptation

Differentiate:
increase ability to adapt



Use the different strengths and capabilities of the different cultures and organisations.

The whole

Homogenise: increase stability



Actively learn about all the cultures and organisation. Share knowledge, best practices. Incorporate aspects of one another's cultures and practices.

Love, stability

Individuate: increase autonomy



Put your unique talents on the line. Identify and encourage the full use of the talents of all.

Integrate the system as a whole

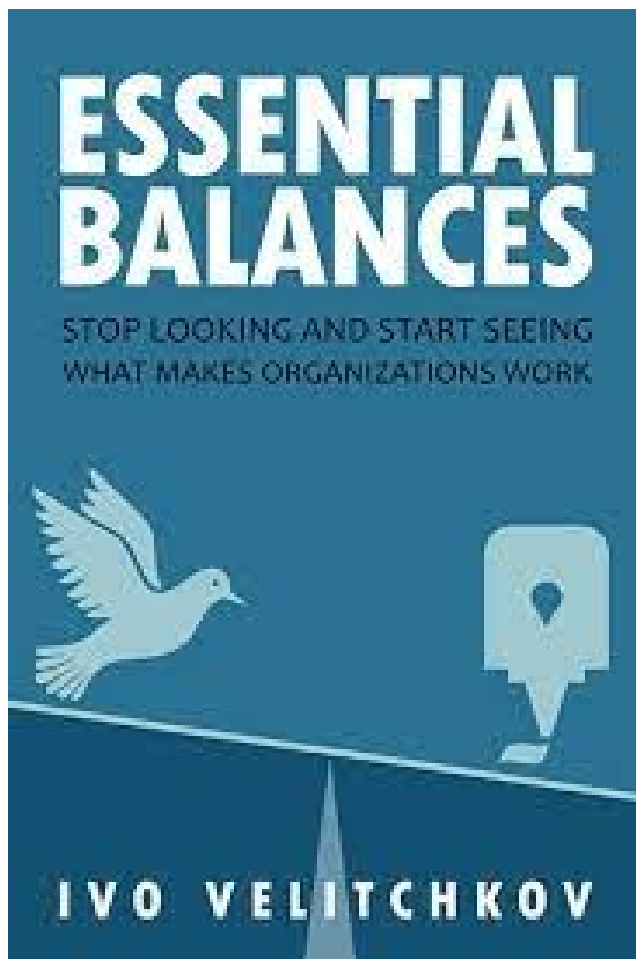


Create a compelling system mission. Feed and support one another. Modulate behavior in the service of the whole.

Parts / individuals

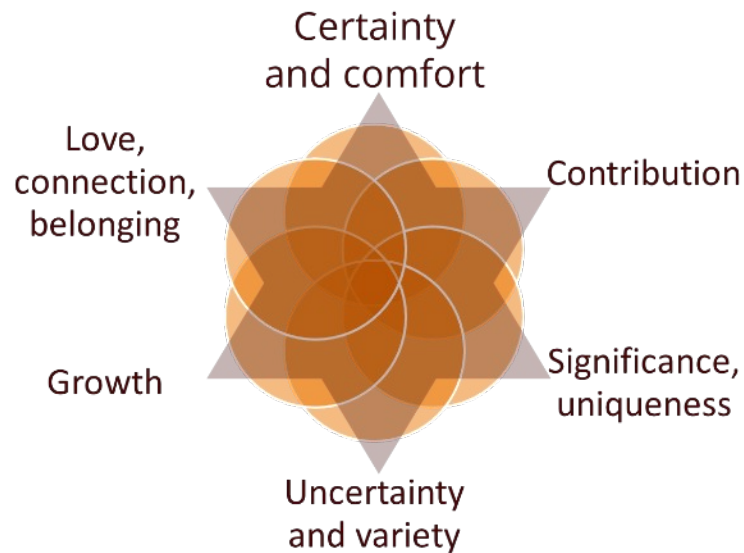
Barry Oshry (Organic Systems) and Stafford Beer (Viable Systems)

Essential Balances



www.essentialbalances.com

Human and organisational needs ...blue dot distribution and dance!



Core human needs	Organisational needs
Our need for	Is met by, and contributes to, the organisation's need to
<i>Certainty and comfort</i>	Homogenise and create stability
<i>Uncertainty and variety</i>	Differentiate and increase ability to adapt
<i>Love, connection, belonging</i>	Integrate, feed and support each other, moderate behaviours
<i>Significance, uniqueness</i>	Individuate and maximise autonomy

Creating such a context meets the final two human needs—learning/growth, and contribution to value in the world.

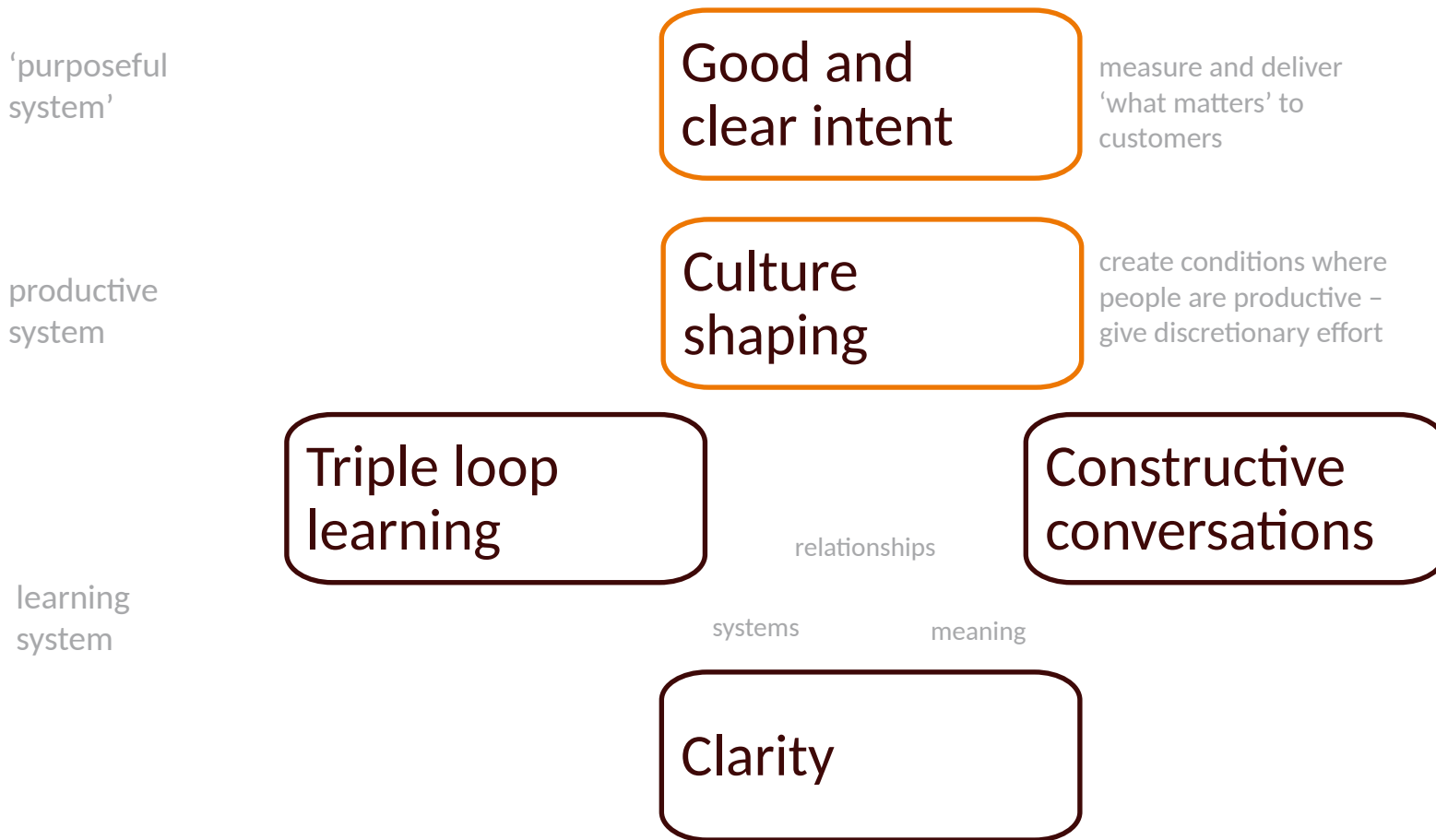
Core human needs

- Multiple sources – I re-developed this myself, but/and, it turns out it totally maps to the model used by Tony Robbins (<https://www.habitsforwellbeing.com/6-core-human-needs-by-anthony-robbins/>),
- Apparently originated by Chloe Madanes: <https://cloemadanes.com/2016/10/12/the-6-human-needs-for-fulfillment>.
- See also <https://pollackpeacebuilding.com/blog/conflict-6-core-human-needs/>
- and https://en.wikipedia.org/wiki/Optimal_distinctiveness_theory

Organisational needs

- at a human dynamics level, from Barry Oshry's Organic Systems Framework: differentiation and homogenisation of the whole; and individuation and integration of the parts
- at a functional level, from Stafford Beer's management cybernetics: adaptability and stability of the whole; and autonomy and integration of the parts

Core management and leadership practices



Address danger / confusion / conflict / deficit / development as they arise

Thank you!

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Systems community of enquiry: www.syscoi.com

Blog: chosen-path.org / antlerboy.medium.com

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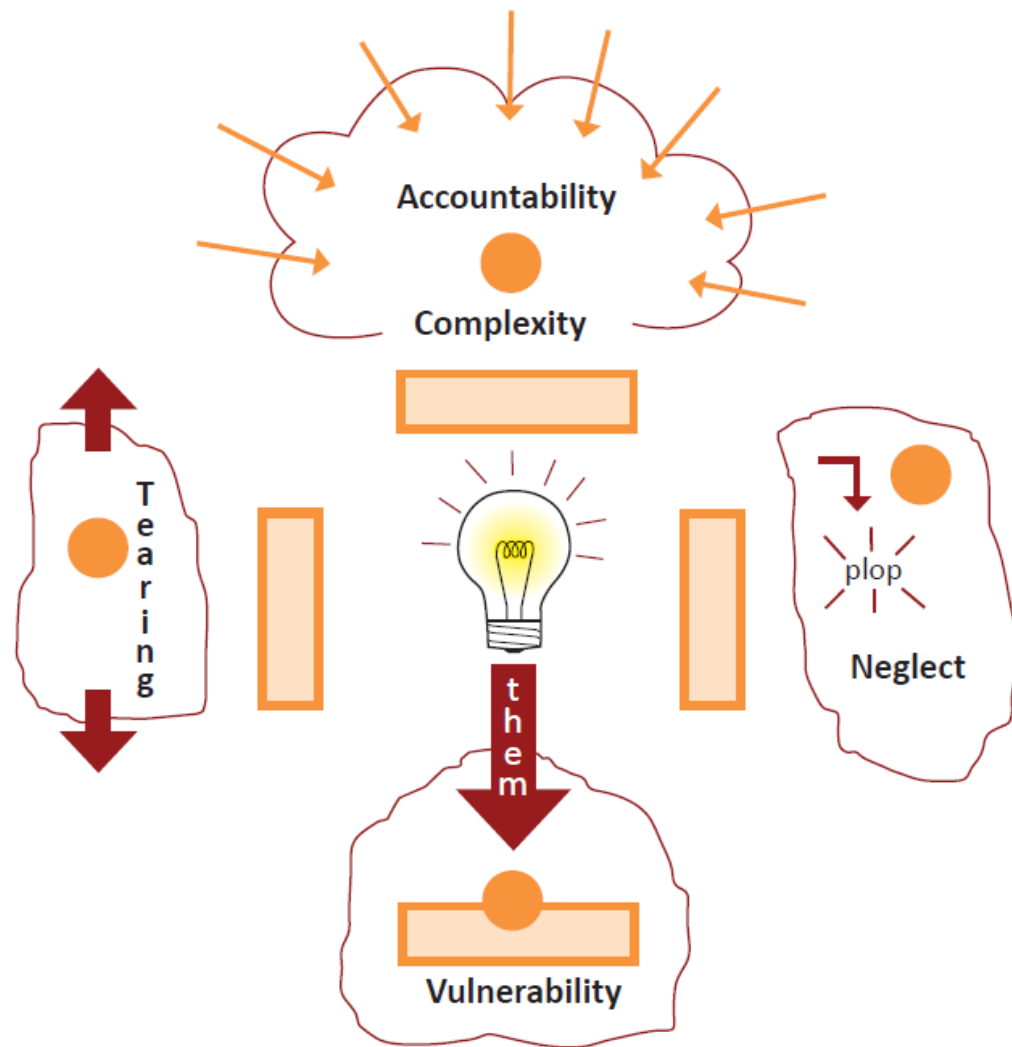
www.publicservicetransformation.org



All the links are at bentaylor.com



ANNEX – EASY REFERENCE / EMPOWERING STRATEGIES



In the **Top** world your great idea may show up as **more complications** or as a **complaint**.

In the **Bottom** world your great idea may show up as '**Them**' **trying to do it to us again**.

In the **Middle** world your 'simple' and 'reasonable' request may show up as **more tearing** between you and others.

In the **Customer** world your intentions to please may show up as **more neglect**.

‘Stuff’ happens

The side show

- Make up a story about it
- Evaluate others:
malicious/ insensitive/ incompetent
- Take it personally
- React – get mad/ get even/ withdraw
- Focus on the ‘stuff’

The centre ring

- Have understanding/empathy for others
- Stay focused on what you want
to have happen
- Don’t get hooked on ‘stuff’
- Be strategic – take their worlds
into account
- Ease their condition

Top leadership strategies

Informing

- Share high quality information
- Provide feedback

Developing

- Invest in training and development
- Invest in relationships

Involving

- Involve others in the BIG issues
- Make others Top; you coach
- Ask for help

Structuring

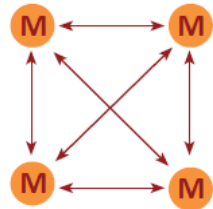
- Create and use teams
- Create enrolling visions
- Reduce the differences between Tops and Bottoms
- Support Middle integration

Customer strategies

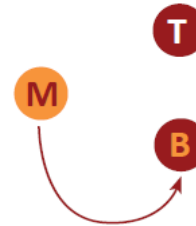
- Contract with the supplier to build a relationship / partnership
- Know how it works
- Set clear demands and standards
- Get into the process early as a partner, not late as a judge
- Stay close to the producer

Be a middle who maintains your independence of thought and action

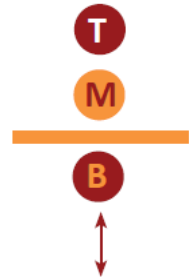
1. Integrate with your peers



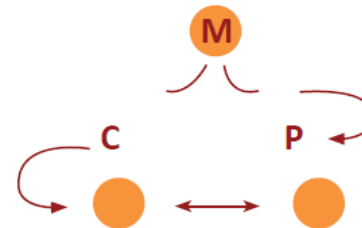
4. Be Coach



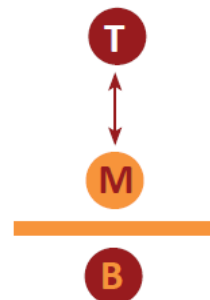
2. Be Top when you can



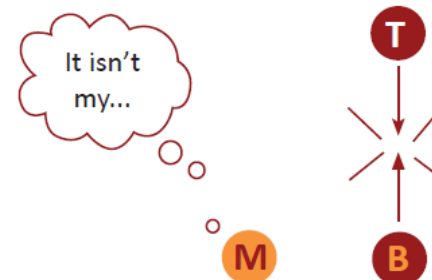
5. Be Facilitator



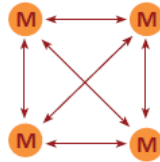
3. Be Bottom when you should



6. When they're fighting, remember:



Integration



- Share information
- Work the information
- Coordinate
- Problem solve
- Support one another
- Look for new possibilities/synergies

We say that the reason we don't integrate is how we feel about one another, and that if we felt differently about one another, then we would integrate; the truth is: it's just the other way around.

We feel the way we feel about one another because we don't integrate; and if we did integrate we would feel very differently.

To get integration going

- Give it a try
- Share intelligence about the system
- Bring an issue
- Rotate responsibility
- Bring lunch

Tips for successful middle integration

- Create a powerful and compelling mission
- Make meetings sacred commitments
- Meet without Tops
- Keep Tops informed
- Coach and support one another
- Hold each other accountable for action
- Rotate leadership
- Work with tough issues

Bottom empowerment shift

Note: This is not about 'Bottoms';
this is about us and our bottomness in whatever positions we are in.

