Reifying Systems Thinking towards Changes: Rhythmic Shifts, (Con)Texture, and Propensity amongst Living Systems

David Ing

Creative Systemic Research Platform Institute
    (Ticino, Switzerland; Mora d-Ebre, Span)
Systems Changes Learning Circle
    (Toronto, Canada)

Universitat de Barcelona
October 10, 2022

Image CC-BY Mike Cassano (2009) *Most Interesting Pothole*

David Ing, Toronto, Canada

- Creative Systemic Research Platform, Research Fellow

- International Society for the Systems Sciences, President (2011-2012)

- IBM, 28 years (management consulting, market development, headquarters planning)

- University teaching:
  Finland (AaltoU, Metropolia);
  Canada (OCADU, UToronto);
  PR China (TongjiU);
  UK (UHull); Japan (TiTech)

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey

The 56th Annual Meeting of the
International Society for the Systems Sciences

ISSS San Jose 2012

July 15-20 2012, at San Jose State University, California

Service Systems, Natural Systems

A call for participation in San Jose, CA USA, July 15-20, 2012

The systems sciences provide a platform of concepts and language that enables communities of interest to transcend disciplinary boundaries towards developing new knowledge and perspectives. The *ISSS 2012* theme of Service Systems, Natural Systems draws attention to complex issues in today's world, where dialogue amongst the learned may lead to better futures.

The *service systems* sciences focus on the value cooperatively created and shared in human activities. Service systems support basic needs such as food and water, develop social potential through education and healthcare, and advance our societies through businesses, governments and social enterprises working in a globalized, networked world.

The *natural systems* sciences focus on the sustainability and diversity of life on our planet. Social ecological systems balance competing interests of human well-being, social development and economic progress. Maintaining resilience of natural capital and resources across temporal and spatial scales challenges policies, governance and stewardship.

The sessions of ISSS 2012 will foster learning conversations. The dialectic between service scientists and natural scientists will sweep in new perspectives in dialogues beyond disciplinary boundaries.

Venue:
•San Jose State University, San Jose, California, USA
•On-campus accommodations and special hotel rates available

Conference Schedule:
•Sunday, July 15 (6 p.m.) to Friday, July 20, 2012 (1 p.m.)
•Pre-conference workshops on Sunday, July 15 (10 a.m. to 5 p.m.)
•Post-conference workshops on Friday, July 20 (2 p.m. to 5 p.m.)

Important Dates:
•May 10, 2012: The end of early, discounted registration.
•June 15, 2012: The deadline for full papers to be included in the online proceedings.
•June 15, 2012: The deadline for abstracts and poster sessions to be streamed into the conference program.

Watch for conference updates on isss.org

■ *Research Paper*

Rethinking Systems Thinking: Learning and Coevolving with the World

David Ing*

Department of Industrial Engineering and Management, School of Science and Technology, Aalto University, Espoo, Finland

Much of systems thinking, as commonly espoused today, was developed by a generation in the context of the 1950s–1980s. In the 2010s, has systems thinking changed with the world in which it is to be applied? Is systems thinking *learning* and *coevolving* with the world? Some contemporary systems thinkers continue to push the frontiers of theory, methods and practice. Others situationally increment the traditions of their preferred gurus, where approaches proven successful in prior experiences are replicated for new circumstances. Founded on interactions with a variety of systems communities over the past 15 years, three ways to rethink systems thinking are proposed:

1. 'parts and wholes' snapshots → 'learning and coevolving' over time
2. social and ecological → emerged environments of the service economy and the Anthropocene
3. episteme and techne → phronesis for the living and nonliving

These proposed ways are neither exhaustive nor sufficient. The degree to which systems thinking should be rethought may itself be controversial. If, however, systems thinking is to be authentic, the changed world of the 21st century should lead systems thinkers to engage in a reflective inquiry. Copyright © 2013 John Wiley & Sons, Ltd.

Keywords systems thinking; learning; coevolution; world

INTRODUCTION: IS SYSTEMS THINKING

International Society for the Systems Sciences—

Which is/are *system(s) change(s)* c.f. ***not*** *system(s) change(s)*?

OECD Observatory of Public Sector Innovation

"… (rare) use" by governments of systems approaches towards making public services more effective and resilient"
(Cook & Tõnurist, 2017, p. 4).

Stanford Social Innovation Review

… a way for "policymakers, foundations, NGOs, and social enterprises tackling issues like poverty, preventable disease and poor education" to "solve the root causes" of these intractable problems
(Seelos & Mair, 2018, p. 35).

United Nations Development Programme

… a three phase methodology: (i) sense and frame; (ii) engage and position; and (iii) transform (Wellsch, 2022, p. 1)

Forum for the Future + McConnell Foundation

"What is systems change?"
"… asked people attending and unable to attend to offer their definitions of systems change"
(Birney & Riddell, 2018, p. 5)

"Change as Three Steps" as attributed to Kurt Lewin is a "largely post-hoc reconstruction"; he never wrote "refreeze"

Unfreezing change as three steps: Rethinking Kurt Lewin's legacy for change management

Stephen Cummings
Victoria University of Wellington, New Zealand

Todd Bridgman
Victoria University of Wellington, New Zealand

Kenneth G Brown
University of Iowa, USA

Abstract
Kurt Lewin's 'changing as three steps' (unfreezing → changing → refreezing) is regarded by many as the classic or fundamental approach to managing change. Lewin has been criticized by scholars for over-simplifying the change process and has been defended by others against such charges. However, what has remained unquestioned is the model's foundational significance. It is sometimes traced (if it is traced at all) to the first article ever published in *Human Relations*. Based on a comparison of what Lewin wrote about changing as three steps with how this is presented in later works, we argue that he never developed such a model and it took form after his death. We investigate how and why 'changing as three steps' came to be understood as the foundation of the fledgling subfield of change management and to influence change theory and practice to this day, and how questioning this supposed foundation can encourage innovation.

Keywords
CATS, changing as three steps, change management, Kurt Lewin, management history, Michel Foucault

Corresponding author:
Stephen Cummings, Victoria Business School, Victoria University of Wellington, Wellington, New Zealand.
Email: stephen.cummings@vuw.ac.nz

[Change as Three Steps] has come to be **regarded** both as an **objective self-evident truth** and an idea with a **noble provenance** [p. 3]

unfreeze → change → refreeze

Unfreezing change as three steps | Sage Publishing | Youtube

Lewin never wrote 'refreezing' anywhere.

As far as we can ascertain, the **re-phrasing of Lewin's freezing to 'refreezing'** happened first in a 1950 conference paper by **Lewin's former student Leon Festinger** (Festinger and Coyle, 1950; reprinted in Festinger, 1980: 14).

Festinger said that: 'To Lewin, life was not static; it was changing, dynamic, fluid. Lewin's unfreezing-stabilizing-refreezing concept of change continues to be highly relevant today'.

It is worth noting that Festinger's first sentence seems to **contradict** the second, or at least to contradict later interpretations of Lewin as the developer of a model that deals in static, or at least clearly delineated, steps.

Furthermore, Festinger **misrepresents** other elements; **Lewin's 'moving' is transposed into 'stabilizing'**, which shows how open to interpretation Lewin's nascent thinking was in this 'preparadigmatic' period (Becher and Trowler, 2001: 33). [p. 5]

Cummings, Stephen, Todd Bridgman, and Kenneth G Brown. 2016. "Unfreezing Change as Three Steps: Rethinking Kurt Lewin's Legacy for Change Management." *Human Relations* 69 (1): 33–60. https://doi.org/10.1177/0018726715577707 .

In contrast to strategy as *plan*, strategy as *pattern* in a stream of actions is defined by consistency in behavior, whether or not intended
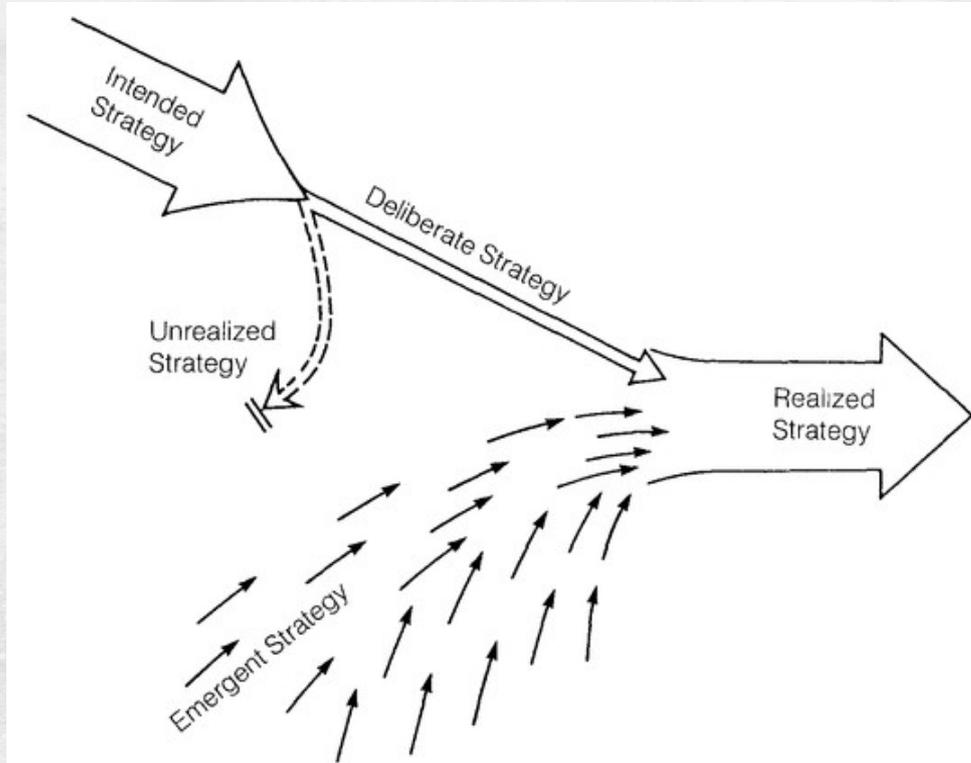
To paraphrase Hume, strategies may result **from human actions**, but **not human designs**.

If we label
the first definition *intended* **strategy**
and the second *realized* **strategy**,
as shown in Figure 1, then we can distinguish between
deliberate **strategies**,
where intentions that exists previously were realized, from
emergent **strategies**,
where patterns developed in the absence of intentions, or
despite them (which went *unrealized*).

Mintzberg, Henry. 1987. "The Strategy Concept I: Five Ps For Strategy." *California Management Review* 30 (1): 11–24. https://doi.org/10.2307/41165263 .

Three works in 2022 reflect the current (i) doing, (ii) thinking, + (iii) making, in year 4 of 10 for the Systems Changes Learning Circle

http://systemschanges.com/online/presentations   http://coevolving.com/commons/publications

Systems Thinking through Changes:
An action learning guide for the Canadian Digital Service

Code for Canada
https://codefor.ca
Systems Changes Learning Circle
http://systemschanges.com

March 2022

Image CC-BY Mike Cassano (2009) Most Interesting Pothole. systemschanges.com 2022

http://systemschanges.com/online/
presentations/20220304_cfc

http://coevolving.com/commons/20220304
-systems-thinking-through-changes

The Journal of Sustainable Smart Behavior (SSB)

ISSN 2611-8637 (Print)
ISSN 2612-2340 (Online)

Article

Systems Changes Learning: Recasting and reifying rhythmic shifts for doing, alongside thinking and making

David Ing[1]

1   Creative Systemic Research Institute, coevolving@gmail.com

Abstract: In 2022, the *Systems Changes Learning Circle* is in its fourth year of 10-year journey on "Rethinking Systems Thinking". In a contextural action learning approach, the Circle has elevated rhythmic shifts as the feature that both resonates with practitioners in the field, and fits with a post-colonial philosophy of science bridging classical Chinese thought with Western professional practices. This multiparadigm inquiry recasts and reifies the activities of doing (*praxis*), thinking (*theoria*) and making (*poiesis*). The facility with this approach is deepened through three levels: (i) educating of attention, orienting novices towards contrasting modes of thought; (ii) learning for co-relating, lending a way for practitioners to critically appreciate their situations, and (iii) learning for articulating, aiding mentors to guide groups productively through mutual learning.

Keywords: systems thinking; systems change; polyrhythmia; ecological epistemology; yinyang; propensity; Chinese medicine; post-colonial science; action learning

1. Introduction

The *Systems Changes Learning Circle* was formed in January 2019, centered in Toronto, Canada. At inception, a rising interest in a label of "systems change" was noticed, with a coherent view of its meaning left unanswered. On this subject, core members of the Circle pledged to meet triweekly in a slow action learning program, on a 10-year horizon. Building on the long tradition with General Systems Theory as primordial to the Systems Sciences, the program is a response to the challenge of "Rethinking Systems Thinking" beyond its 20th century legacy [1] (Ing, 2013). After 3 years of action learning, the Circle discriminates "systems changes" with (i) "rhythmic shifts" that can be seen as history-making, as compared to (ii) routine patterns that are normally unnoticed as everyday background processes. Predispositions amongst *Systems Changes Learning Circle* members see:

- (a) *systems*, as socio-ecological wholes, with human beings embedded intergenerationally in manufactured subworlds, coevolving alongside coupled natural biophysical ecosystems, increasingly sympathetic towards non-anthropocentric sustainable development [2] (Gallopin 2003);
- (b) *changes*, as polyrhythmic in nature, with ensembles of phases that may present as (i) eurhythmia of living in healthy conditions, or (ii) arrhythmia in disturbance either temporally or pathologically [3] (Lefebvre 2004); and
- (c) *learning*, as animate beings co-responding in taskscapes, becoming lines of movements or growths gathering to resolve their affairs alongside other species in an entangled meshwork [4] (Ingold 2011).

Systems Changes Learning is proposed as a three-word agglutinative neologism. The three words are a recasting (i.e. discourse adjustment) [5, 6] (Watkins & Pemberton 1987; Pemberton & Watkins 1987) and reifying (i.e. remaking into a thing) [7, 8] (Vandenberghe

Citation: Ing, D. Systems Changes Learning: Recasting and reifying rhythmic shifts for doing, alongside thinking and making. *J. Sustain. Smart Behav.* **2022**, *1*, x. https://doi.org/10.3390/xxxxx

Academic Editor: Firstname Lastname

Received: date
Accepted: date
Published: date

Publisher's Note:

http://coevolving.com/commons/
2022-07-recasting-and-reifying-r
hythmic-shifts

Appreciating Systems Changes via Multiparadigm Inquiry:
Architectural Design, Ecological Anthropology, Classical Chinese Medicine, Systems Rhythms

David Ing
Creative Systemic Research Platform Institute
(Ticino, Switzerland)
Systems Changes Learning Circle
(Toronto, Canada)
International Society for the Systems Sciences
66th Annual Meeting, July 2022

Image CC-BY Mike Cassano (2009) Most Interesting Pothole systemschanges.com 2021

http://coevolving.com/commons/2022-07-08-
appreciating-systems-changes

Systems Changes Learning initiated with Triggering Conversation exhibits (i) Doing (practices), (ii) Thinking (theories), + (iii) Making (methods)

Triggering Conversation

is an instance of

Progressing Practices

is exhibited by

… on **Doing**

Systems Changes Learning

is exhibited by

is exhibited by

Progressing Methods

Progressing Theories

… on **Making**

… on **Thinking**

Object Process Language

- *Systems Changes Learning* is physical and systemic.
- *Triggering Conversation* is physical and systemic.
- *Triggering Conversation* is instance of *Systems Changes Learning,*
- *Systems Changes Learning* exhibits *Progressing Practices, Progressing Theories*, and *Progressing Methods*.
- *Progressing Practices* is physical and systemic.
- *Progressing Theories* is informational and systemic.
- *Progressing Methods* is informational and systemic.

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey

Reifying Systems Thinking towards Changes

October 2022

Session Agenda for Canadian Digital Service

:60	:60	:80		:10	:60		:30
I. **Presentation**	🍴	II. **Workshop**		☕	III. **Workshop**		IV. **Read-outs**
• Welcome • *Systems Thinking* as *Systems Changes Learning* • Action learning practices as a hub + 4 spokes		• Reforming as groups • Knowing from within • Contextual influences • Diagnosing rhythmic disorders	:10 :20 :20 :30		• Prognosing likelihoods • Reordering pacing • Reflecting on progress + process (pre-retrospective)	:20 :20 :20	• Show and tell (:10 per team)

D. **Post-workshop retrospective** (homework)
• Summary (1 page) of paths considered and not taken, actions to be negotiated

B. Doing: Hub + 4 spokes ...

Favoring 3 groups of systems thinkers, we add new contributors

Early cybernetics
Gregory Bateson (1904-1980)
Norbert Wiener (1894-1964)
Warren McCulloch (1898-1969)
Margaret Mead (1901-1978)
W. Ross Ashby (1903-1972)

Soft & critical systems
C. West Churchman (1913-2004)
Russell Ackoff (1919-2009)
Peter Checkland (1930-)
Werner Ulrich (1948-)
Michael C. Jackson (1951-

Complexity theory
Ilya Prigogine (1917-2003)
Stuart Kauffman (1939-)
James Lovelock (1919-)

Ecological anthropology
J.J. Gibson (1904-1979)
Tim Ingold (1948-)

General systems theory
Ludwig von Bertalanffty (1901-72)
Kenneth Boulding (1910-1993)
Geoffrey Vickers (1894-1983)
Howard Odum (1924-2002)

Learning systems
Kurt Lewin (1890-1947)
Eric Trist (1911-1993)
Chris Argyris (1923-2013)
Donald Schön (1930-1997)
Mary Catherine Bateson (1939-)

Postcolonial & Chinese philosophy of science
Keekok Lee (1938-)
François Jullien (1951-)
John Law (1946-)

Service science
Richard Normann (1953-2003)
James C. Spohrer (1956-)
Gary S. Metcalf (1957-)

Later cybernetics
Heinz von Foerster (1911-2002)
Stafford Beer (1926-2002)
Humberto Maturana (1928-)
Niklas Luhmann (1927-1998)
Paul Watzlawick (1921-2007)

System dynamics
Jay Forrester (1918-2016)
Donella Meadow (1941-2001)
Peter Senge (1947-)

Practice theory
Hubert Dreyfus (1929-2017)
C. Fernando Flores (1943-)
Étienne Wenger (1952-)

Systemic design
Harold G. Nelson (1943-)
Birger Sevaldson (1953-)
Peter H. Jones (1957-)

Source: Ramage, Magnus, and Karen Shipp. 2020. "Introduction to the First Edition." In *Systems Thinkers*, edited by Magnus Ramage and Karen Shipp, xiii–xx. Springer London. https://doi.org/10.1007/978-1-4471-7475-2, p. xvii
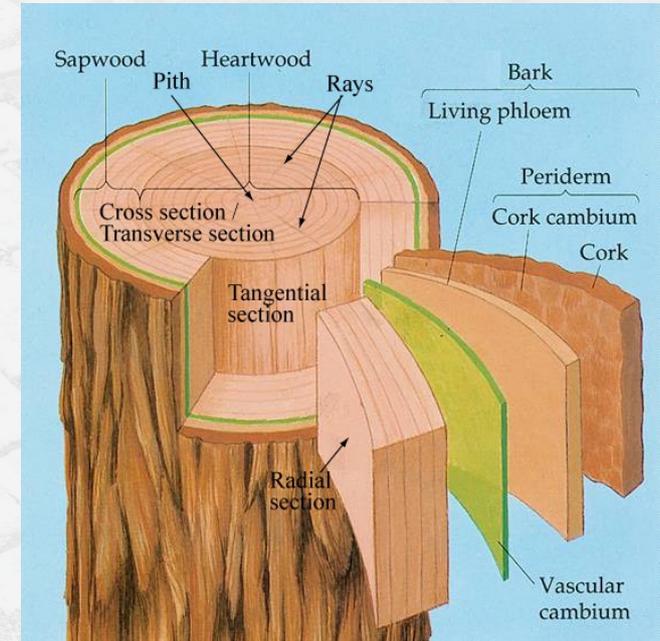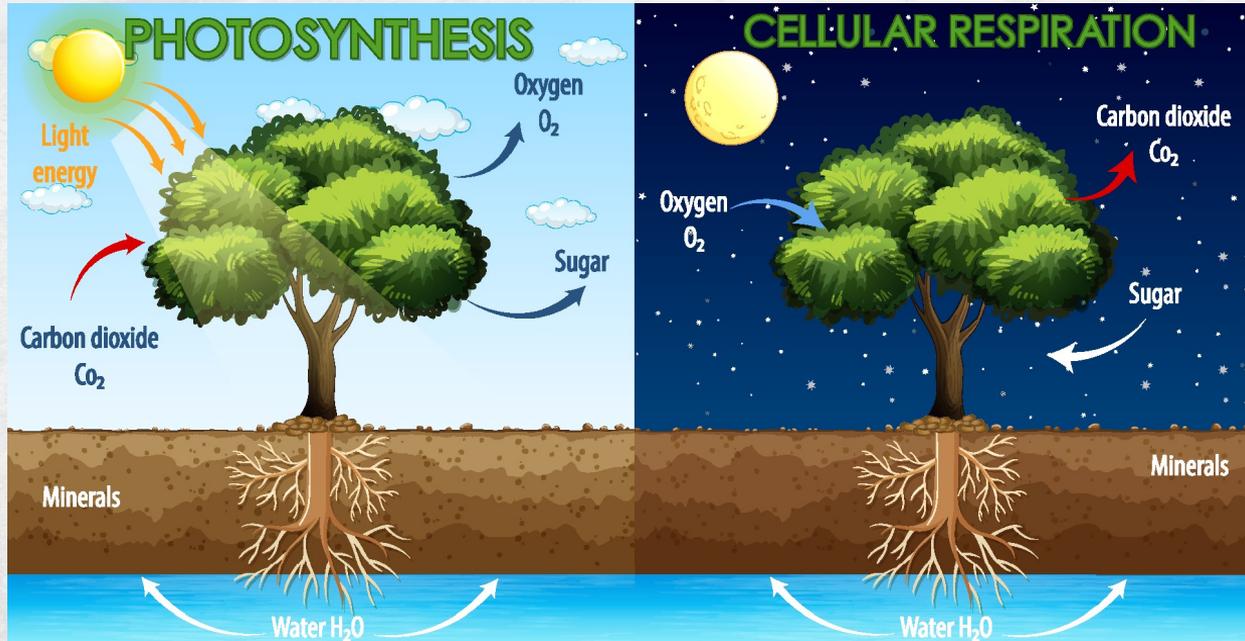
With authentic systems thinking, synthesis precedes analysis

Thinking *synthetically*
- Placing together parts into wholes

Thinking *analytically*
- Loosening from wholes into parts

***Systems Changes Learning* adds ... thinking *dyadically* ... over time**
- e.g. the sun *waxing* (increasing in strength) and *waning* (decreasing in strength)
- Dyadic (yinyang waxing and waning) is not dualistic (e.g. sun, no sun)

Our attention is drawn to rhythmic shift(s) in the texture, as the line of the system of interest crosses over co-related systems of influence
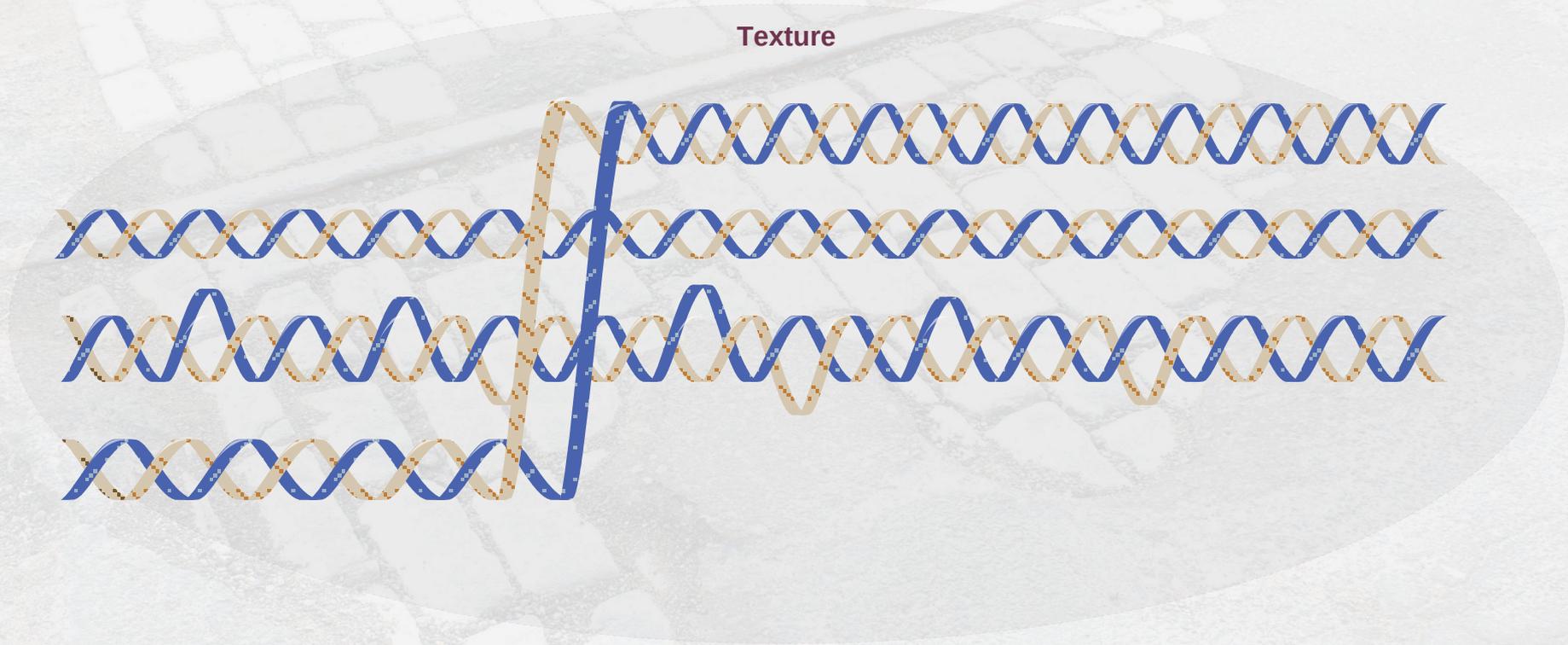
Texture

Rhythms of a living system of interest weave into a contexture of co-related systems of influence

Contexture
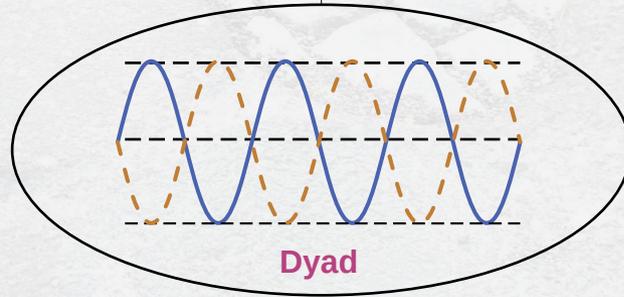
EVEN EIGHTHS ♩ = 120

consists of
(has)

Dyad

Reifying Systems Thinking towards Changes   October 2022

Mechanisms ⇒ causality in conditions. Living systems ⇒ propensity in conditions

Water skiing, motion via causality
- Motorboat towing

Surfing, motion via prospensity
- Waves in the ocean
- Surfer on the board

Systems Changes Learning centers on a hub of *knowing from within*, appreciated through a cycle of learning along four spokes

Recognizing contextual influences

consists of (has)

Reordering pacing

consists of (has)

Knowing from Within

consists of (has)

Diagnosing rhythmic disorders

consists of (has)

Prognosing likelihoods
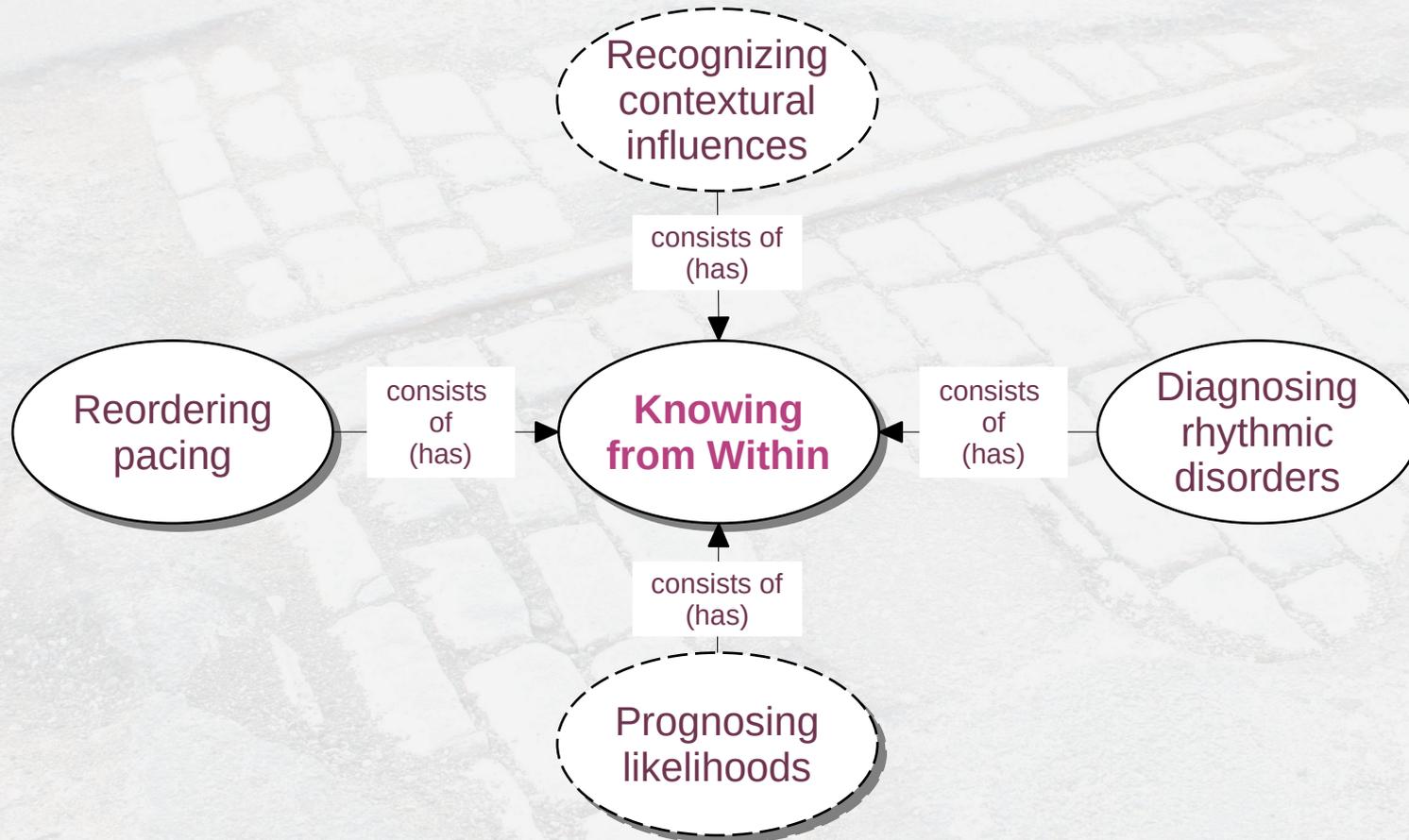
Legend:
Object Process Methodology

Essence Physical; Origin Systemic

Essence Informational; Origin Systemic

Essence Physical; Origin Environmental

Essence Informational; Origin Environmental

Knowing from within embodies a becoming within rhythmic shifts of a system of interest, in the synthesis of co-responding dyadic processes

Guiding questions
1. Which rhythmic shift(s) is/are most present to you?
2. Which is your system of interest, that (i) can and should know, and (ii) can adapt and/or learn?
3. Which two dyadic processes carry on synthesizing to sustain living? • Yang == working, dissipating, expanding • Yin == resting, materializing, contracting

Knowing from Within

Reifying Systems Thinking towards Changes   October 2022
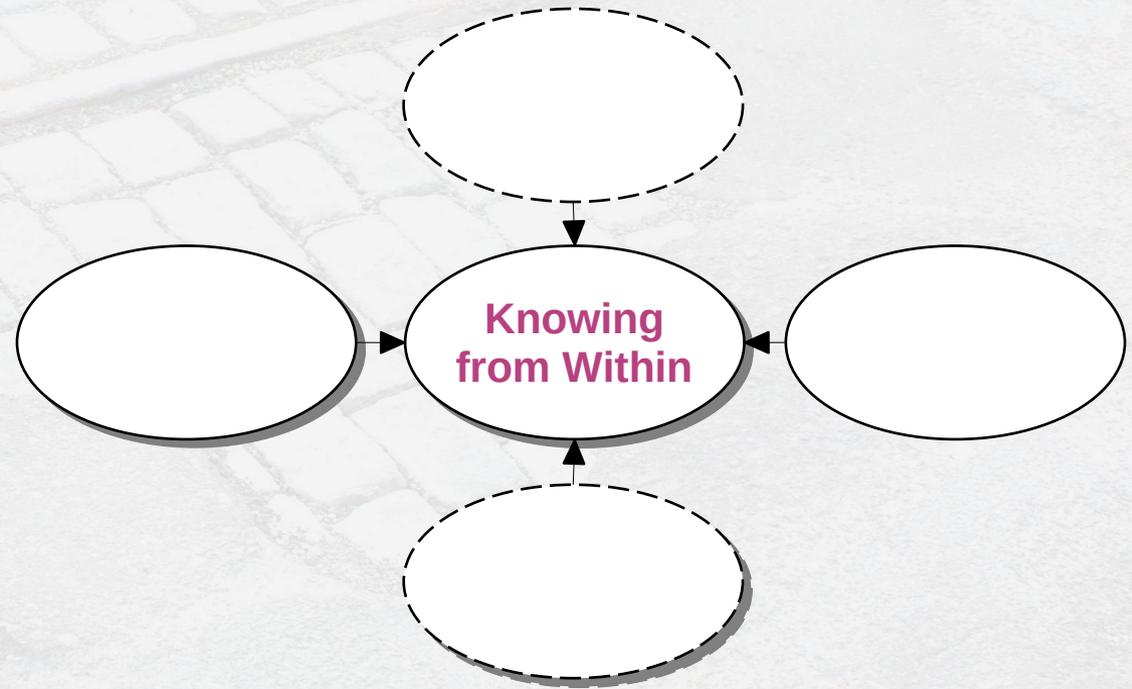
Knowing from within, example 1:
Consider a shift to pandemic working-from-home on (family) life

|	Guiding questions	Knowing from within
1.	Which rhythmic shift(s) is/are most present to you?	• Residents living + working in closer quarters • Easy conveniences → resource preplanning
2.	Which is your system of interest, that (i) can and should know, and (ii) can adapt and/or learn?	• Household
3.	Which two dyadic processes carry on synthesizing to sustain living? • Yang == working, dissipating, expanding • Yin == resting, materializing, contracting	• Working (providing income) • Domesticizing (homemaking)

Knowing from within, example 2:
## Consider a shift into a software app for venue vaccination tracking

	Guiding questions	Knowing from within
1.	Which rhythmic shift(s) is/are most present to you?	• Visitors previously anonymous → tracked • Venue checking, recording names at door
2.	Which is your system of interest, that (i) can and should know, and (ii) can adapt and/or learn?	• Civic Tech? • Collaboration between volunteer technical professionals and small organizations in a region
3.	Which two dyadic processes carry on synthesizing to sustain living? • Yang == working, dissipating, expanding • Yin == resting, materializing, contracting	• Privileging access of personal records for entry • Right-to-be-forgotten after n days

Knowing from within, hint (philosophy of science, Classical Chinese Medicine):
Dyadic processes make up a whole with parts that co-respond
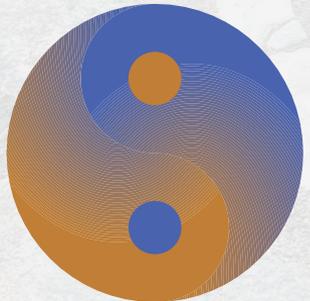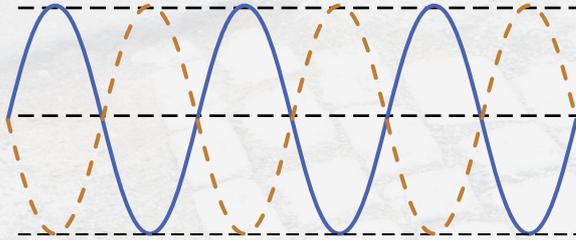
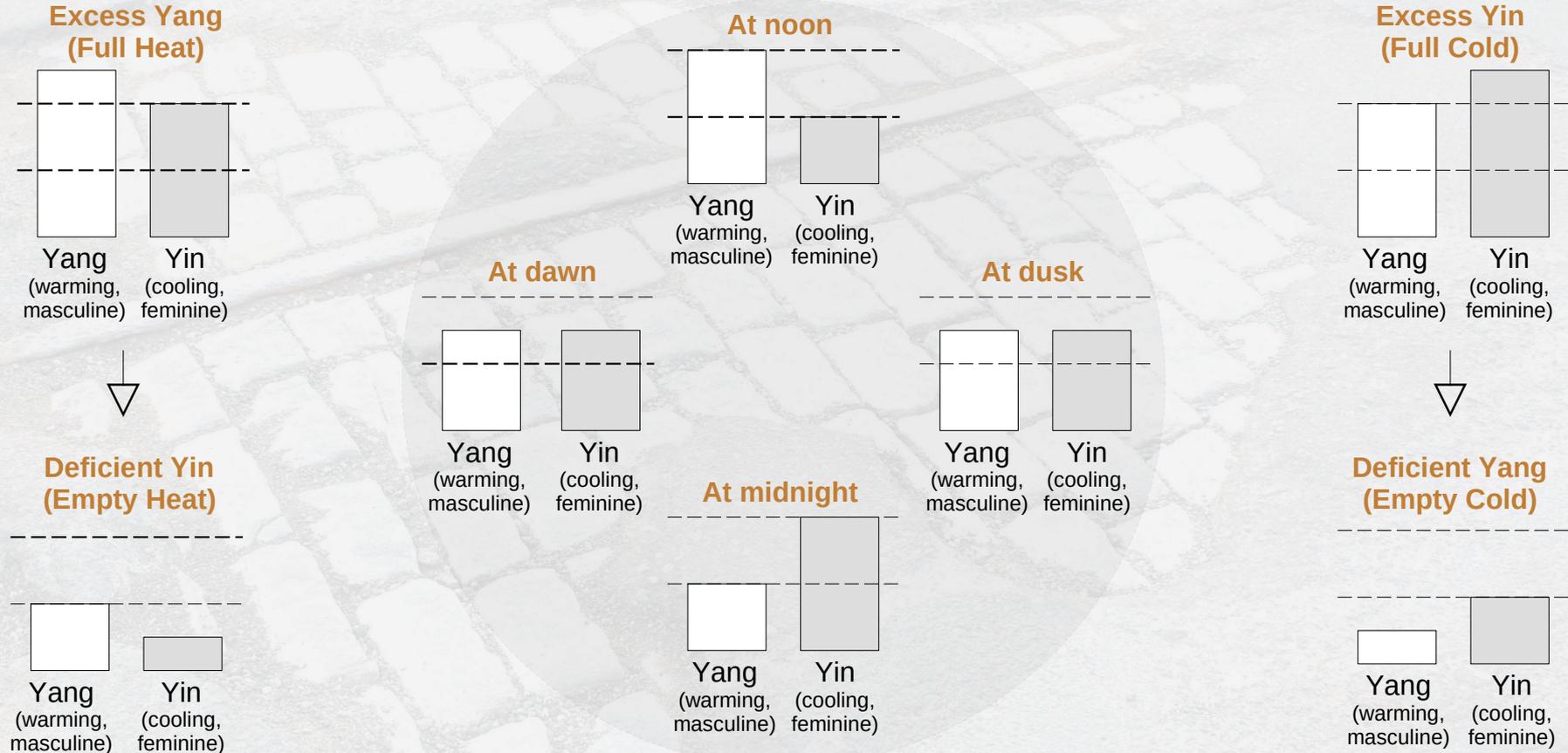| Yang	Yin
Illuminating	Darkening
Working	Resting
Warming	Cooling
Rising	Descending
Dissipating	Materializing
Scattering	Congealing
Generating	Growing
Expanding	Contracting
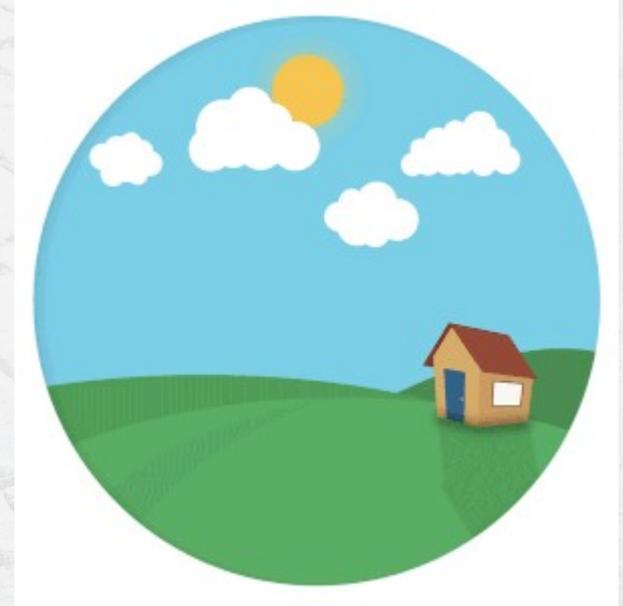
"Sunset-Sunrise" by Rick Ilovar 2021 on Dribble

Diagnosing rhythmic disorders hint:
Pathologies may be diagnosed as one of four conditions

**Excess Yang
(Full Heat)**

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

At noon

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

**Excess Yin
(Full Cold)**

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

At dawn

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

At dusk

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

**Deficient Yin
(Empty Heat)**

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

At midnight

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

**Deficient Yang
(Empty Cold)**

Yang
(warming,
masculine)

Yin
(cooling,
feminine)

October 2022

Recognizing contextural influences, hint:
Concurrent changes over time and space can be placed as (i) *at hand* for directly joining, and/or (ii) *remote* engaging via intermediaries

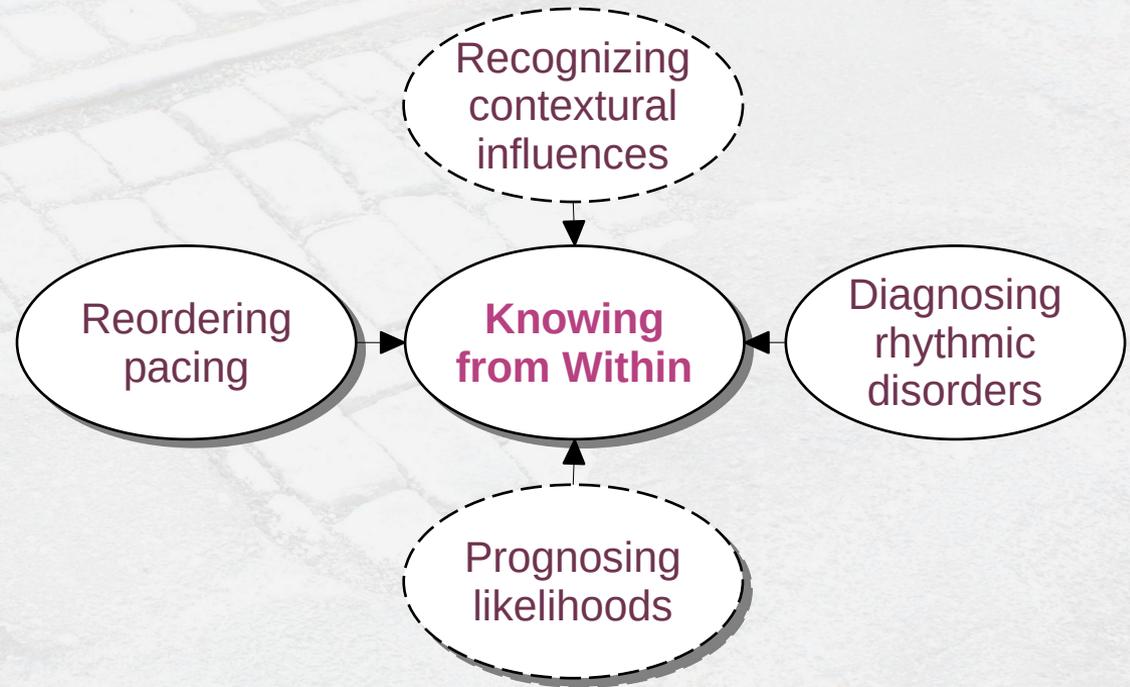|	
Distant Rhythimc shifts that call for ... **Expediting trauma emergencies**	Rhythimc shifts that call for ... **Organizing operating room teams**
Rhythimc shifts that call for ... **Summoning battlefield medics** *Local*	Rhythimc shifts that call for ... **Scheduling neighbourhood clinics**

Urgent *Important*

Action learning is formalized through documenting joint deliberations, alternatives considered, and paths not chosen

Guiding questions	
1.	What did you collectively learn during the workshops?
2.	What more do you need to learn?
3.	Which options did you choose?
4.	Which paths did you disfavour (and why)?
5.	What actions are next?

Recognizing contextural influences

Reordering pacing

Knowing from Within

Diagnosing rhythmic disorders

Prognosing likelihoods

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey

Systems Change Learning first reorients attention, and then aims to nurture both co-relating and articulating

	Praxis - Doing	*Theoria - Thinking*	*Poiesis - Making*
Educating of attention	Behavioral and/or ecological?	Changelessness and/or temporality?	Causality and/or propensity?
Learning for co-relating	Action-agencing	Theory-enskilling	Methods-weaving
Learning for articulating	Action-guiding	Theory-building	Methods-composing

While Behavioral Psychology asked "*What's inside your head*", an Ecological Approach asks "*What's your head inside of?*"

Stimulus – Response
(Behavioral Psychology)

Ecological Approach to Perception
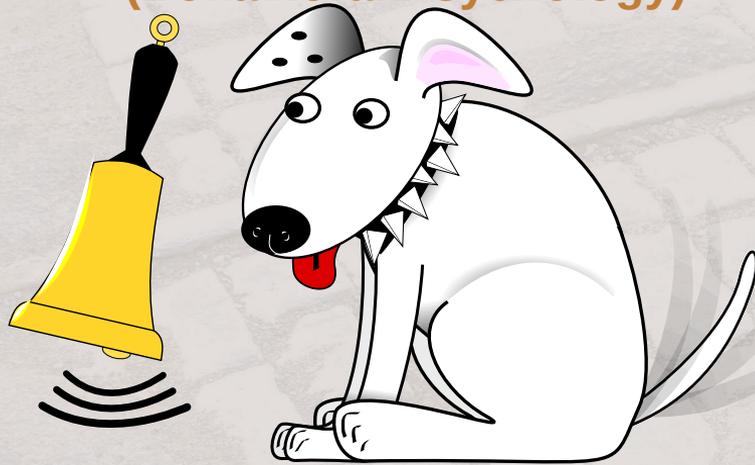
[In the 1950] ... the **psycho-physical** program was … traditional in considering **perception** to be **a set of responses to presented stimuli** (albeit "higher order" stimuli).
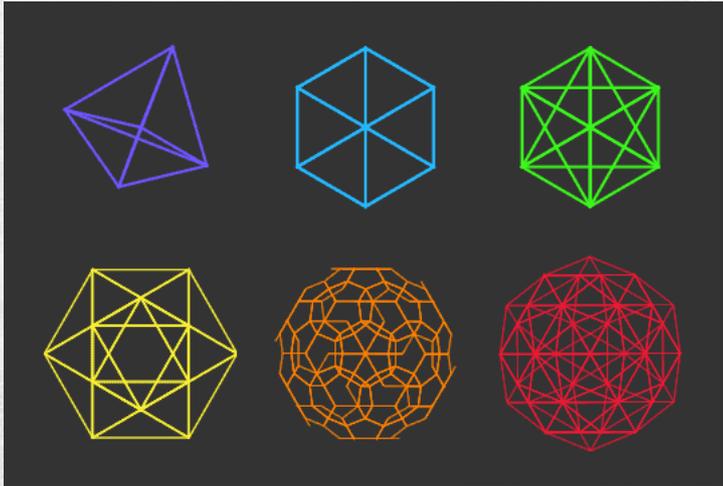
[**James J. Gibson**] has tried to develop enough theory … to demonstrate that **direct perception** is indeed plausible ... The … analysis of the optic array, stimulus organization, and the functional organization of **perceptual systems** are what Gibson oftens points to as **radical features** ….

William M. Mace 1977. "James J. Gibson's Strategy for Perceiving: Ask Not What's inside Your Head, but What Your Head's inside of." In *Perceiving, Acting, and Knowing: Toward an Ecological Psychology*, edited by Robert Shaw and John Bransford, 43–65.

Two ways of seeing nature, since ~500 BCE, have set how humans beings negotiate with themselves and in their world(s)

Reality as a **changelessness state**

- Parmenides of Elea, Confucius
- Shift → stability → sustainable
- Analytic paradigm

Reality as a **state of change, not a change of state**

- Heraclitus of Ephesus, Laotse
- Beauty of dynamic (c.f. protection of static)
- Contextual appreciation

Hyper Platonic, by Nathan P. Seddig (natpbs.tumblr)

Walking, by Dominique Taswell (strawberrylicorice.tumblr)

Hawk, David L. 1999. "Changelessness, and Other Impediments to Systems Performance." In *Proceedings of the Conference to Celebrate Russell L. Ackoff, and the Advent of Systems Thinking*, edited by Matthew J. Liberatore and David N. Nawrocki. Villanova University. http://davidhawk.com/wp-content/uploads/2018/09/Ackoff-Birthday-Conference.pdf#page=59 .

Willful action and *non-intrusive action* are central in Chinese thinking

为 （為） wéi: p. 517
　I (动， verb)

　　1. **do; act**: 敢做敢 ～ gǎn zuò gǎn ～ bold in action

　　2. **act as; serve as**: 以此 ～ 凭 yí cǐ ～ píng This will serve as proof.

　　3. **become**: 变沙漠 ～ 良田 biàn shā mó ～ liáng tiān turn the desert into arable land.

　　4. **be; mean**: 一公里 ～ 二华里 yī gōng lǐ ～ èr huā lǐ One kilometer is equivalent to two li.

无 （無） wu2: p. 526

　I (名， noun) **nothing; nil**: 从 ～ 到有 cóng ～ dào yǒu start from scratch

　II (动， verb) **not have; there is not; without**: ～ 一定计划 ～ yī dìng jì huà have no definite plan

　III (副， adverb) **not**: ～ 须多谈 ～ xǔ duō tǎn need not go into details

Concise English-Chinese Chinese-English Dictionary (2004), 3ed, Commercial Press and Oxford University Press

為
wèi

無為
wú wèi

Wei meant application of **the force of will-power**, the **determination** that things, animals, or even other men, should do what they were ordered to do, but *wu wei* was the opposite of this, **leaving things alone**, letting **Nature** take her course, profiting by **going with the grain** of things instead of going against it, and **knowing how not to interfere**.

Needham, Joseph. 2004. "General Conclusions and Reflections." In The Social Background, edited by Kenneth Girdwood Robinson. Vol. VII:2. *Science and Civilisation in China*. Cambridge University Press. p. 16

Some scholars have argued that the interpretation of *wuwei* as "**non-intrusive action**" or "**non-interfering action**" is more philosophically profound and interesting. These latter translations support a meaningful rendition of the concept *wuwei* **both at the sociopolitical level** (arguing against the imposition of artificial, conformist and universally binding norms) **and at the metaphysical level** (acknowledging the inappropriateness and fatality of imposing egocentric or anthropocentric norms upon other individuals or species).

Lai, Karyn. 2003. "Conceptual Foundations for Environmental Ethics: A Daoist Perspective." *Environmental Ethics* 25 (3): 247–66. https://doi.org/10.5840/enviroethics200325317 .

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey

Reifying Systems Thinking towards Changes   October 2022   systemschanges.com, 2022

Appreciating philosophies in (i) architectural design, (ii) ecological anthropology and (iii) Chinese medicine led to insights into systems rhythms

	Appreciative Systems		
	Reality Judgments	*Value Judgments*	*Instrumental Judgments*
Philosophy of Architectual Design	Differentiating space	Living order (Quality without a Name)	Unfolding patterns, constructing, repairing, systems generating systems
Philosophy of Ecological Anthropology	Lines of becoming, meshworks	Continuity of living, alongside other beings	Form-giving as weaving
Philosophy of Classical Chinese Medicine	Diseases as internal, with external causes	Wei, wuwei	Sequence treating root(s) or manifestation(s), tonifying yin or yang, expelling pathogenic factors
Philosophy of Rhythms	Repetition in time as *kairos* (alongside *chronos*)	Collective polyrhythmia, with individual eurhythmia or arrhythmia	Isolating by individuals to the personal (eigenrhythmus) or enskilling to the whole (allrhythmus)
Philosophy of Systems Rhythms	Rhythmic shifts, in textures	Propensity	Reordering pacing

Reifying Systems Thinking towards Changes   October 2022   systemschanges.com, 2022

Coevolving Innovations

… in Business Organizations and Information Technologies

Christopher Alexander, Horst Rittel, C. West Churchman

At U.C. Berkeley in the 1960s, Christopher Alexander, Horst Rittel and C. West Churchman could have had lunch together. While disciplinary thinking might lead novices to focus only on each of pattern language, wicked problems and the systems approach, there are ties (as well as domain-specific distinctions) between the schools.

Circa 1968-1970: Christopher Alexander, Horst Rittel, West Churchman

Recent Posts

- Christopher Alexander, Horst Rittel, C. West Churchman
- Open Innovation Learning and Open Data
- Learning data science, hands-on
- Innovation Learning and Open Sourcing: IoT + Cloud + Cognitive
- Acts of representation with systems thinking (OCADU 2017/03)
- Service Systems Thinking, with Generative Pattern Language (Metropolia 2016/12)

Subscribe via e-mail
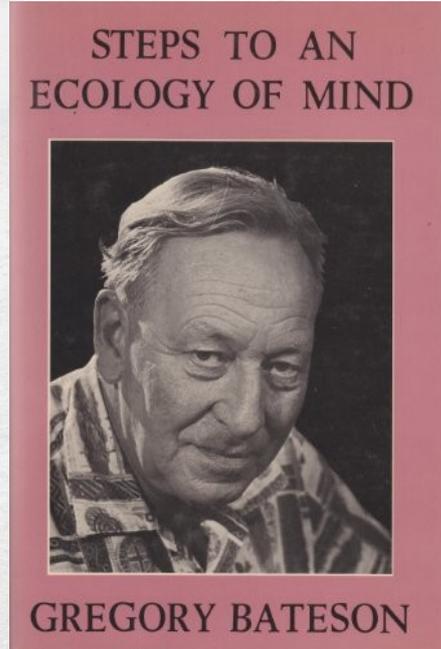
email address

Subscribe

Search

Tweets by @daviding

David Ing
@daviding

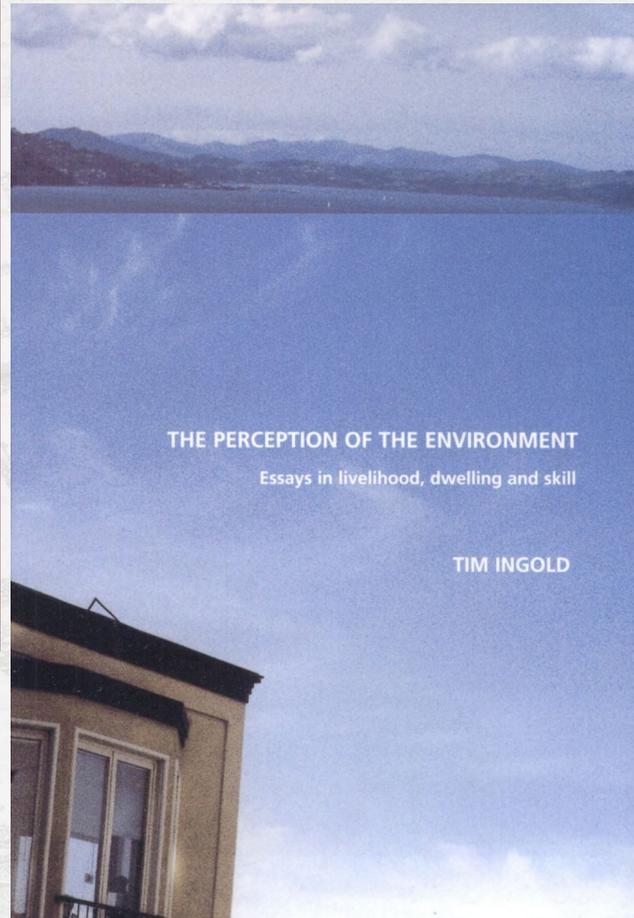Anshansicun: Whimsically residential area,... bit.ly/2jU

D. Making: Systematic methods via multiparadigm inquiry ....

The Perception of the Environment (Ingold, 2000) extends ecological epistemology as by Gregory Bateson in "Form, Substance and Difference" (1970)

STEPS TO AN ECOLOGY OF MIND

GREGORY BATESON

"the mental world … is not limited by the skin"
[Bateson 1972, p. 461]

THE PERCEPTION OF THE ENVIRONMENT
Essays in livelihood, dwelling and skill

TIM INGOLD

… an '**ecology of life**' … all hinges on a particular answer to Bateson's question:
what is this 'organism plus environment'?

For conventional ecology, the 'plus' signifies a simple addition of one thing to another, both of which have their own integrity, quite independently of their mutual relations. ….

A **properly ecological approach**, to the contrary, is one that would take, as its point of departure,
the whole-organism-in-its-environment.

In other words, **'organism plus environment'** should denote not a compound of two things, but **one indivisible totality** (Ingold, 2000, p. 19).

In contrast with a science based on the universals + duals, Chinese medicine follows traditions of contexts + dyads
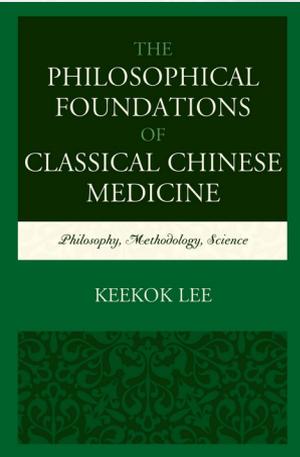
	Dualistic (Modern Western formal logic)		Contextual-dyadic (Classical Chinese implicit logic)
THE PHILOSOPHICAL FOUNDATIONS OF CLASSICAL CHINESE MEDICINE *Philosophy, Methodology, Science* KEEKOK LEE	Abstract and permanent, is independent of context • Can extrapolate from propositions	**Truth - Falsity**	Application and meaning is relative to a particular context • Evaluate assertion as embedded
	Oppositions Superior ↔ Inferior Superordinate ↔ Subordinate Intrinsic value ↔ Non-intrinsic value Human ↔ Nonhuman	**Pairings**	*Characteristics under context* A term presupposes it opposite • e.g. *cat* implies *non-cat*, not universe Context-dependence • e.g. men or women superior when/where?
	Hierarchical Reductionist Entity- (thing-) ontology	**Frames**	Yin-Yang Harmonious whole Mutually engendering or constraining

Lee, Keekok. 2017. *The Philosophical Foundations of Classical Chinese Medicine: Philosophy, Methodology, Science.* Lexington Books. https://rowman.com/ISBN/9781498538886/The-Philosophical-Foundations-of-Classical-Chinese-Medicine-Philosophy-Methodology-Science.

Polyrhythmia is an alignment of multiple organic repetitions in time and space, beyond metrics of mechnical regularity

Polyrhythmia		
Isorhythmia is an equality of rhythms, in an identity of temporalities	**Eurhythmia** is an association of heterogeneous rhythms, as normal in a healthy living body	**Arrhythmia** is a breaking apart of rhythms, altering and bypassing synchronization
Isorhythmia is present in symphonic and orchestral music, but otherwise is rare.	Eurhythmia is present in living bodies as diverse rhythms in a metastable equilibrium unified with the environment.	Arrhythmia appears as functional disruption than can manifest into illness and progress into morbid and fatal disorder.

Henri Lefebvre
Rhythm-analysis
Space, Time and Everyday Life
revelations
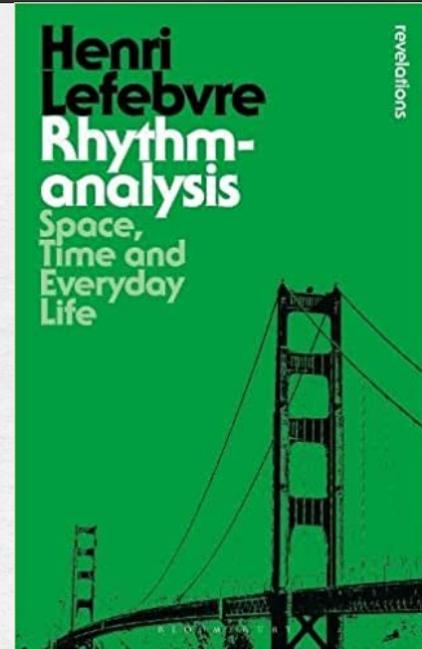
Lefebrve, Henri. 2004. "The Rhythmanalyst: A Previsionary Portrait." In Elements of Rhythmanalysis: An Introduction to the Understanding of Rhythm, translated by Stuart Elden and Gerald Moore, 19–26. *Rhythmanalysis: Space, Time and Everyday Life*. Continuum.
"liquid light ~ modulate I" CC-BY hobvias sudoneighm 2004.

Reifying Systems Thinking towards Changes   October 2022

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey

Reifying Systems Thinking towards Changes   October 2022   systemschanges.com, 2022

Centered in Toronto, the Systems Changes Learning Circle originates from CSI, OCADU SFI and Systems Thinking Ontario

David Ing

linkedin.com/in/
daviding/

Dan Eng

linkedin.com/in/
daneng/

Kelly Okamura

linkedin.com/in/
kelly-okamura/

Zaid Khan

linkedin.com/in/
zaid---khan/

Open Learning Commons

Category	Topics
Peer Learning Groups	7
A top-level category for discussing peer learning groups in general, and for containing sub-categories for specific peer learning groups and their discussions.	
■ MetaCAugs	
Pattern Language	8
Systems Aesthetics	1
The Systems Aesthetics category on discuss.openlearning.cc is one of the online resources for an ongoing open access research project, originating as a subgroup of the Systems Changes Learning Circle.	
Systems Changes	63
The Systems Changes category on discuss.openlearning.cc is one of the online resources for an ongoing open access research project.	
Systems Thinking	73
The Systems Thinking category on discuss.openlearning.cc aims to be a venue for conversations that will persist over time.	
Open Learning Commons (Meta)	6
Discussion of Open Learning Commons itself. For example, architectural choices.	
wiki	1
All topics created in this category are wikis, and therefore editable by all members.	

Channels Search

OpenLearning

Find channel

- 🌐 Systems Aesthetics
- 🌐 Systems Changes
- 🌐 💬Systems Thinking
- 🔒 Trito3
- 🌐 Wiki

DIRECT MESSAGES

- antlerboy
- kellyo2
- zaid_khan
- robert_best
- daneng
- j3rry
- nizken
- jelena
- rarar
- jpovaska
- m.s.elshimi
- mikewittenstein
- jimscarver

Systems Changes

👤 29 📌 2 📄 Casual chat CC-BY-SA, extending http://systemschange...

daviding ⓔ Update your status 9:42 AM ↩ 1

In a review of the Stewart Brand biography, we might recognize an emerging journalist who fell into systems thinking and has been in the right place at the right time. The review may be seen as negative, but maybe it's worth remembering that public figures are human beings, too.

> Brand's next big idea combined his receding interest in photography with his increasing interest in "systems thinking," a shift from his Randianism to the faddish work of architectural theorist Buckminster Fuller. On one 1966 acid trip, Brand was struck by an idea: Why hadn't NASA released

COOPERATING AT GLOBAL SCALE IS HUMANITY'S PRIMARY CHALLENGE

Cooperating-at-scale is mission critical to pursuing the sustainable development goals. We're a cooperative dedicated to nurturing trustworthy technology and organizing principles for cooperating-at-scale, and such recursion is a property of the natural systems that inspire us.

Creative Systemic Research Platform Institute

is an institution aiming to promote research and development of non-profit projects. We focus on investigating the skills needed for Community Resilience, supported by ecological practices and systemic and creative learning.

Existing since 2017 as a non-profit research group, we evolved in December 2020 into the CSRP Institute.

More about   Contact us

Agenda

A. Rethinking Systems Thinking

B. Doing: Hub + 4 spokes

C. Thinking: Action learning for facilitators

D. Making: Systematic methods via multiparadigm inquiry

E. Co-learning with the 10-year journey