



Laetus in praesens

Alternative view of segmented documents via Kairos

1 July 2024 | Draft

AI Commentary on an Envisaged Synthesis Dialogue

On the occasion of the proposed Summit of the Summits and its possible enhancement by AI

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Aspects of this argument, regarding use of polyhedra in configuring memorable integrative frameworks, are developed in subsequent documents:
AI-enabled Mapping and Animation of Learning Pathways (2024); *Facilitating Global Dialogue with AI?* (2024)

Introduction

The early web version of the program of the **Summit of the Summits** to be held in Hakone (Japan) in September 2024 invites critical commentary in an exercise appropriate to the times. Possible criteria for such commentary are identified in *Evaluating Synthesis Initiatives and their Sustaining Dialogues* (2000) and submitted to two AIs in the form of **ChatGPT 4** and **Claude 3** (Opus variant) together with the web variant of the Summit program.

That exercise followed earlier speculative experiments with the two AIs and presentation of their comments in response to a set of questions (*Eliciting a Pattern that Connects with AI?* 2024; *Experimental AI Meta-analysis of an Academic Journal Issue*, 2024). These highlighted various reservations with regard to the process and the nature of the responses. As in what follows, little effort was made to challenge the responses in quest of more precise articulation -- an instructive iterative engagement possible in future development of this approach.

With respect to the explicit speculative framing of the questions presented to the AIs, it is somewhat surprising how proactively they respond to possibilities -- registering appropriate reservations -- in a period characterized by "failure of imagination". This is seen as consistent with a need for imaginative reflection on the crises of the times, as discussed separately (*Time for Provocative Mnemonic Aids to Systemic Connectivity?* 2018). Of potential relevance is the extent to which AI can enable dialogue of higher quality (*Use of ChatGPT to Clarify Possibility of Dialogue of Higher Quality*, 2023; *Higher Dimensional Reframing of Unity and Memorable Identity*, 2024; *Artificial Intelligence as an Aid to Thinking Otherwise -- but to what End?* 2023; *Second-order Dialogue and Higher Order Discourse for the Future*, 2023).

Coincidentally the Summit of the Summits in Japan is envisaged in the same period as that of the United Nations **Summit of the Future** in New York -- with the theme of *Our Common Agenda*, framed as the UN Secretary-General's vision for the future of global cooperation. At the time of writing it is unclear to what extent AI will be used to enhance the discourse of the UN Summit -- especially since it is explicitly associated with a UN policy brief on the *Global Principles for Information Integrity*. This offers a comprehensive framework to guide multistakeholder action for a healthier information ecosystem -- with five key principles designed to strengthen information integrity. That initiative follows an earlier summit organized by a UN Specialized Agency -- *AI for Good Global Summit* (2023), in which it does not appear that any significant use was made of AI.

The following experiment is inspired by themes characteristic of Japanese culture -- as evoked by its provisional program of the Summit of the Summits. This invites reference to Zen philosophy as characterized by the traditional set of 48 koans of the so-called *Gateless Gate* (*Mumonkan*). A case has been previously made for the value of appreciating the insights of "Eastern" articulations to complement those promoted so vigorously within the "Western" frameworks with which AI is so prominently associated (*Coherent Reconciliation of Eastern and Western Patterns of Logic*, 2023). A specific challenge is assumed to be that of the comprehension and memorability of complex frameworks -- hence the provocative evocation of 47 micronutrients as insightful metaphors (*Memorable Configuration of Psychosocial "Vitamins", "Amino acids" and "Minerals"*, 2024). The AIs in the following experiment engaged proactively and explicitly in the hypothetical confrontation of such micronutrients with the set of 48 koans -- and with possibilities for their memorable geometrical configuration as polyhedra.

Of further interest, and of some relevance to the preoccupations of the UN, the AIs were able to adapt that speculative exploration both to the set of Sustainable Development Goals (SDGs) and that of the Inner Development Goals (IDGs). A particular merit of any Zen framing is the recognition of a degree of paradox and humour potentially inherent in articulations from which it is too readily assumed to be absent, as discussed separately (*Paradoxes of Durable Peace, Heaven and a Sustainable Lifestyle*, 2023; *Humour and Play-Fullness: essential integrative processes in governance, religion and transdisciplinarity*, 2005).

As in the previous experiments, the responses of ChatGPT are distinctively presented below in grayed areas, in parallel with those of Claude 3. **Given the length of the document to which the exchange gives rise, the form of presentation has itself been treated as an experiment** -- in anticipation of the future implication of AI into research documents. Web technology now enables the whole document to be held as a single "page" with only the "questions" to AI rendered immediately visible -- a facility developed in this case with the assistance of both ChatGPT and Claude 3.

This compact presentation facilitates readability and overview by reducing the apparent length of the complete document by over 90%. However readers have the ability to toggle access to the individual AI "response" associated with each question -- and to hide it. This interactive facility is not available in the PDF forms of the document -- for which both questions and responses are necessarily visible in a necessarily lengthy presentation.

Show All AI Responses

AI Commentary on the initial Summit proposal

Question: The document on *Synthesis Initiatives* indicates criteria for evaluating the proposed gathering of the Summit of the Summits. Could you comment critically on the second in the light of the first

Show/Hide AI response

Potential role of artificial intelligence in summitry

Question: With respect to the document on the Summit of the Summits (as previously uploaded), and the associated comments, could you comment on the potential relevance of AI to the enhancement of the dynamics of that summit -- in the light of the attached document [*Envisaging the AI-enhanced Future of the Conferencing Process*, 2020]

Show/Hide AI response

Requisite variety of roles and interventions for significant synthesis

Question: Could you offer more detailed commentary on the variety of roles and interventions appropriate as a basis for a rich synthesis -- and the symbolic implications of their dynamics

Show/Hide AI response

Potential insights from a Zen perspective

Question: Given that there will be significant Japanese implications, could you comment on how Zen insights might feature fruitfully in the Summit to add depth and dimensionality

Show/Hide AI response

Insightful implications of Zen koans

Question: In mentioning the role of koan, you did not make specific reference to the implications of the 48 koan of the "Gateless Gate" -- surely a symbolic synthesis in its own right of symbolic relevance to the event in many respects, as presented in the attached document [*Configuring a Set of Zen Koan as a Wisdom Container*, 2012]

Show/Hide AI response

Question: Given the rich articulation of Buddhist logic, is there any trace of why the set of koans numbers 48. Is this understood in mathematical terms as a complete set in some sense

Show/Hide AI response

Any insight into 48 from a mathematical perspective may offer clues to its value with respect to coherent cognitive organization and memorability. As indicated by *Wikipedia*:

- 48 is the second **17-gonal (or heptadecagonal) number**, inviting reflection in terms of the 17-fold organization of the UN's Sustainable Development Goals
- 48 is the smallest number with exactly ten divisors
- 48 is the number of **isosymmetries of a cube** (see also: *24-fold Pattern Implied by Dynamics of the Lauburu in 3D*, 2016)
- 48 **truncated cubes** form the cells of a **tetracontotachoron** (also commonly called the 48-cell or bitruncated 24-cell) a convex noble **uniform polychoron**
- 48 is the number of great vows and promises made by Buddha to provide the ultimate salvation to countless beings
- Torah wisdom is said to be acquired via 48 ways according to the Mishnah
- Johann Sebastian Bach's *Well-Tempered Clavier* is informally known as *The Forty-Eight* because it consists of a prelude and a fugue in each major and minor key, for a total of 48 pieces.

Potential correspondence with micronutrients essential to life

Question: Also in this exchange, there has been a focus on the psychosocial "vitamins" (12), "amino acids" (20) with a possible set of "minerals" (15) -- together totalling 47 [*Memorable Configuration of Psychosocial "Vitamins", "Amino acids" and "Minerals"*, 2024]. To the extent that these could be interpreted as corresponding to the set of 48 koans (configurable on vertices of a truncated cuboctahedron or edges of a rhombicuboctahedron), could you speculate on how the koans could be understood as micronutrients -- possibly of a higher order

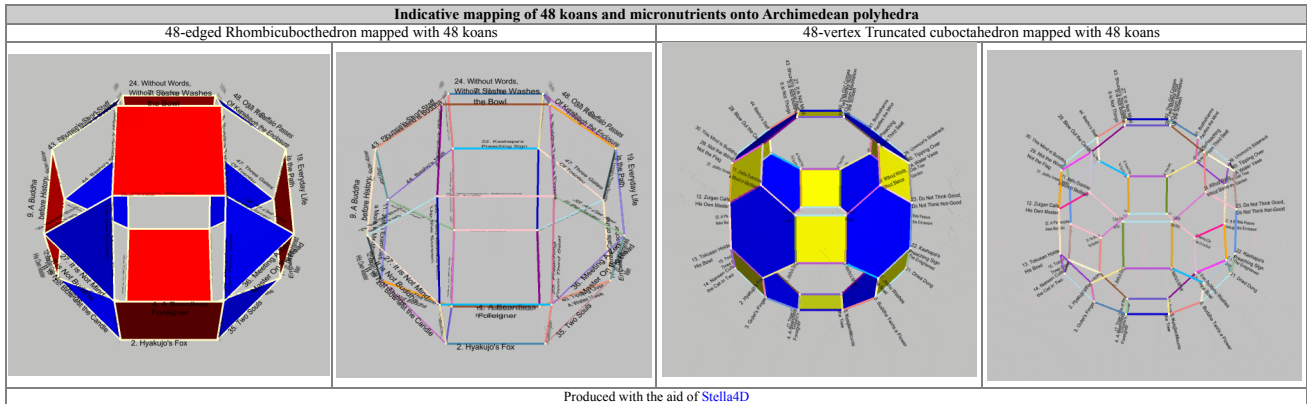
Show/Hide AI response

Question: Perhaps appropriately you have only offered selected examples of comparability. Could you extend your speculation to the complete set of koans. Given recognition of how the koans might be configured geometrically to cluster them appropriately, do you have any suggestions as to how this might be done

Show/Hide AI response

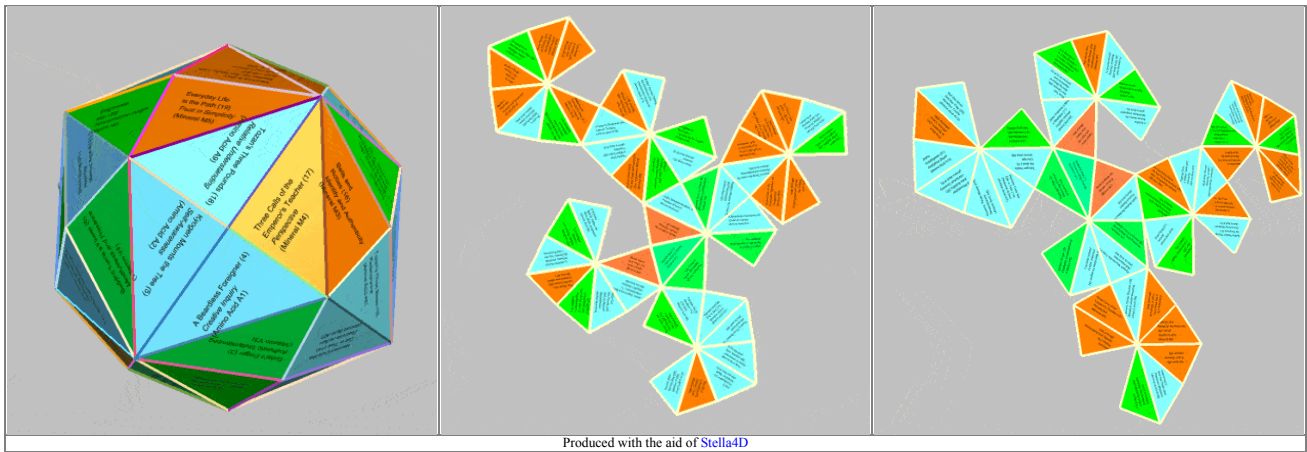
Rendering a 48-fold set of insights memorable through visualization

Whilst the AI suggestions for mappings constitute a valuable provocation to further reflection, no attempt was made in the following animations to attribute the koans according to those suggestions. These appear to call for much further consideration and insight, notably from **polyhedral combinatorics**. The challenge for any potential integrative insight, whether for an individual or a society, can however be framed as how to render a 48-fold pattern comprehensible and memorable. The set of koans of the *Gateless Gate* is one representation of that challenge to comprehension -- as it can be presented through various polyhedra.



An obvious question is how the arbitrary mappings above might be transformed into a more orderly memorable pattern indicative of related cognitive processes. In the following configuration -- rather than use the edges (above left) or vertices (above right), the faces of a polyhedron are used. A 3-fold colouring of the 48 elements of the set of koan-micronutrients can then be used to frame the question of how the "vitamins" (green), "amino acids" (cyan), and "minerals" might be ordered on the polyhedron. The challenge is somewhat reminiscent of the widely recognized challenge of appropriately ordering Rubik's "magic cube" as previously discussed (*Harmonizing Dissonance via a Rubik's Cube Framework*, 2024; *Interplay of Sustainable Development Goals through Rubik Cube Variations*, 2017; *Rethinking Rubik's Cube: a mnemonic device for ways of knowing and engagement?* 2009).

Indicative mapping of 48 koans and corresponding micronutrients on 48-faced dual of Truncated cuboctahedron ("Disdyakisidodecahedron")		
Dual of Truncated cuboctahedron	Unfolded network	(Un)folding animation



Produced with the aid of Stella4D

Of potential interest to recognition of the challenge of higher dimensionality to integrative comprehension -- in the light of the set of insights of the 48 koans -- is a configuration in 4D. This is known variously as the **tetracontaoctachoron**, commonly called the 48-cell -- consisting of 48 truncated cubes whose facets are termed "cells". As a **bitruncated 24-cell**, it is a convex noble **uniform polychoron** (one of 64). Four cells join at each vertex. It is the medial stage of the **truncation** series between a regular **icositetrachoron** and its dual. Alternatively, it is also the stellation core of the compound of two opposite icositetrachora, the **stellated tetracontaoctachoron**. Its configuration in 4D can only be indicated through various approaches to its projection into 3D. Such images frame the question of the cognitive correspondence to "truncation" with respect to comprehension.

Alternative (necessarily distorted) representations in 3D of 4D 48-cell (bitruncated 24-cell) configuration		
Orthographic projection of the bitruncated 24-cell into 3D	Tetracontaoctachoron	Animation of cross-sections of tetracontaoctachoron
By Tetracube at en.wikipedia, CC BY-SA 3.0, Link	Tomruen at English Wikipedia	Produced with the aid of Stella4D User:Galoomba

The animation on the right above is suggestive of the manner in which the cognitive relationship between the insights of the sets of koans is dynamic rather than static. More generally this reinforces the argument that integrative synthesis is itself dynamic rather than statically configured.

The above visualizations were preceded by earlier exercises in formatting the koans of the *Gateless Gate* for Twitter (*Configuring a Set of Zen Koan as a Wisdom Container*, 2012). Those exercises were further developed at that time with **concluding arguments** and a complete set of **references** presented in a later paper (*Enabling Wisdom Dynamically within Intertwined Tori: requisite resonance in global knowledge architecture*, 2012).

Question: If the 48 koans are mapped onto edges of a rhombicuboctahedron of 48 edges, it seems that one preliminary method of distribution is by pairs -- since there are 24 pairs forming 24 great circles. Can you suggest how the set of 48 might be split into opposing pairs

Show/Hide AI response

Highlighting a pattern of 24 -- as with pairs of koans -- through "bi-truncation" of that pattern invites a distinctive approach to visualization through a 3D rendering of the 4-fold **lauburu** symbol central to Basque culture (*24-fold Pattern Implied by Dynamics of the Lauburu in 3D*, 2016). This was explored as the visualization of the interplay of sets of voices in discourse, as discussed separately (*Improvisation in Multivocal Poetic Discourse: Basque lauburu and bertsolaritza as catalysts of global significance*, 2016).

Question: Whilst those pairings can be arbitrarily mapped onto the polyhedron, the obvious challenge is how the 4 great circles intersecting at a vertex are distinguished -- especially since "connecting" co-linear edges through each vertex form "sub-circles". Can you comment on this

Show/Hide AI response

From the perspective of environmental design, an interpretation of the "gate" meme used by Zen is offered by **Christopher Alexander** in *The Timeless Way of Building* (1979), as discussed separately (*Beyond Edge-bound Comprehension and Modal Impotence: combining q-holes through a pattern language*, 1981). For Alexander:

- To seek the timeless way we must first know the quality without a name.
- To reach the quality without a name we must then build a living pattern language as a gate.
- Once we have built the gate, we can pass through it to the practice of the timeless way.
- And yet the timeless way is not complete, and will not fully generate the quality without a name, until we leave the gate behind.

A configuration of insights can be understood as a "cognitive gate". Alexander and colleagues presented a preliminary list of 253 patterns in *A Pattern Language* (1977). These can be seen as focusing on the **physical environment** of towns, buildings, and construction. The 48-fold pattern might be explored as clustering the 253 in some manner. As a systemic gate, the 253 also invite experimental interpretation, implying sets of four "corresponding" patterns (*5-fold Pattern Language*, 1984):

- **Template:** This endeavours to describe the pattern in content-free terms as pure relationship. As such it is a guideline for the elaboration of patterns for other arenas.
- **Physical environment:** This is an adaptation of Alexander's own pattern description
- **Socio-organizational environment:** This describes the pattern as it applies to the organization of social groups, organizations and networks.
- **Conceptual environment:** This describes the pattern as it applies to the organization of a conceptual framework or a body of knowledge.
- **Intra-personal environment:** This describes the pattern as it applies to the organization of modes of awareness adopted by a person.

Alexander's subsequent magnum opus (*The Nature of Order: an essay on the art of building and the nature of the universe*. Center for Environmental Structure, 2003-4) inspired his further reflection on patterns (*New Concepts in Complexity Theory: an overview of the four books of the Nature of Order with emphasis on the scientific problems which are raised*. 2003; *Harmony-Seeking Computations: a science of non-classical dynamics based on the progressive evolution of the larger whole*. *International Journal for Unconventional Computing (IJUC)*, 5, 2009). These in turn invite further reflection (*Harmony-Comprehension and Wholeness-Engendering: eliciting psychosocial transformational principles from design*, 2010).

Whilst Alexander's design patterns are indeed individually comprehensible, the set as a whole poses a major challenge -- despite their focus on the physical environment. Given their abstract nature, this is potentially even more so in the case of the psychosocial pattern of 48 koans of the *Gateless Gate*. It is therefore intriguing to consider the pattern of some 47 patterns of micronutrients with which many are variously familiar as vital to healthy nutrition. Surprisingly it would appear that these **micronutrients are also a challenge to memorability and comprehension**. There are many references to nutrition mnemonics and diet mnemonics -- typically referring only to subsets of the 47. These may even emphasize those that are "essential" -- with the implication that they cannot be generated by the body and are dependent on environmentally supplied nutrition.

The challenge of memorable comprehensibility is especially relevant with respect to the UN's set of 17 inherently unmemorable Sustainable Development Goals -- or the efforts to promote a set of equally unmemorable Inner Development Goals (as discussed below). With respect to the sustainable health of the body -- and seeing things whole -- there is however considerable irony to the equivalent challenges of memorability of the set of micronutrients (vitamins, amino acids and minerals).

Recognition of learning pathways and cycles towards sustainable synthesis

The approach to learning in the following questions is framed by insights from metabolic pathways in response to more than 2000 base pathways of primary and secondary metabolism in all domains of life in the [MetaCyc Database](#) in 2013 (Ron Caspi, et al, *The challenge of constructing, classifying and representing metabolic pathways*, *FEMS Microbiology Letters*, 345, 2013, 2). In the development of their classification scheme, the authors note that their ontology contains six top-level categories (or classes): biosynthesis, degradation/utilization/assimilation, generation of precursor metabolites and energy, detoxification, activation/inactivation/interconversion, and metabolic clusters.

Question: Accepting that this is a speculative exercise, to what degree are the learning pathways recognized in Zen

Show/Hide AI response

Question: The exchange on this platform has noted the use of 48 edges of a rhombicuboctahedron to map 48 Zen koan (of the *Gateless Gate*) with 47 corresponding micronutrients. This evokes the question of whether its 6 co-linear octagonal edge pathways could be used to distinguish 6 (learning) cycles for mnemonic purposes. An inspiration in that quest are the various metabolic cycles recognized in metabolic pathway maps in which micronutrients may feature. Can you speculate on the possibility of 6 8-fold clusterings of the 48 koan understood as learning cycles

Show/Hide AI response

Question: Could you speculate on how the koans or micronutrients might be clustered into distinctive cycles

Show/Hide AI response

Question: Given that the key cycles are recognized and named in metabolic pathways, how might these relate to the 6 8-fold cycles you have identified. Is their selective identification a matter of cognitive convenience -- an orderly imposition on a complex data set

Show/Hide AI response

Question: That response avoids reference to the named cycles such as: citric acid cycle, urea cycle, glyoxylate cycle, photorespiration, carbon fixation, pentose phosphate pathway, fatty acid synthesis, fatty acid elongation, beta oxidation, peroxisomal beta oxidation -- approximating to 6-fold or 8-fold cycles. Noteworthy is the *Biochemists Songbook* which recognizes the following cycles in song for mnemonic purposes: The Michaelis Anthem (Tune: "The Red Flag", also known as "Oh Tannenbaum" or "Oh Christmas Tree"); In Praise of E. M. P. (Tune: "The British Grenadiers"), Waltz Round the Cycle (Tune: "Waltzing Matilda"); Beta-Oxidation (Tune: "There is a Tavern in the Town"), The Battle Hymn of the Aerobes (Tune: "The Battle Hymn of the Republic"); Fatty Acid Biosynthesis (Tune: "Men of Harlech"); Photosynthesis (Tune: "Auld Lang Syne"); The Glyoxylate Cycle (Tune: "The Lincolnshire Poacher"); The Pentose Phosphate Shunt (Tune: "Macnamara's Band"); The Chemiosmotic Theory (Tune: "The Eton Boating Song"); We're Here Because Urea ("The Bold Gendarmes", similar to "The Marine Hymn"); Protein Biosynthesis (Tune: "My Bonnie Lies Over the Ocean")

Show/Hide AI response

Correspondence with Inner Development Goals (IDGs)

Question: Earlier in this exchange a degree of correspondence between the amino acids and the set of skills articulated in the Inner Development Goals (IDG) initiative. Does this suggest a possible relationship with the set of koans, notably with respect to learning pathways

Show/Hide AI response

Koan insights potentially associated with Sustainable Development Goals (SDGs)

Question: The Inner Development Goals were articulated as a complement to the 17 Sustainable Development Goals (SDGs) of global policy. Despite speculative exploration, it remains unclear in systemic terms why a pattern of 17 was deemed appropriate as "macronutrients" for the collective -- and how it might be comprehensibly configured as a viable system. If each SDG is a collective learning modality, how might it correspond to one or more IDGs -- namely what is the learning that might be understood as associated with each SDG, potentially exemplified by the insight of a koan. Systemic links between the SDGs were previously suggested

Show/Hide AI response

Recognition of transformational learning pathways

Question: As presented, a "pathway" tends to imply a directional process -- especially given the use of "goal" and its potential achievement. Metabolic cycles imply continuity however -- through conditions -- with the cycle as a whole more akin to a thermodynamic cycle (a "work cycle"). Metabolic cycles are named in that light in contrast with linear pathways. The IDG framework can be understood as 5-fold from that perspective, with the correspondence of koans then to be understood as a 5-fold set of cycles. Does the lack of numeric correspondence between IDGs and SDGs suggest a deficiency of collective insight with regard to the latter.

Show/Hide AI response

Higher dimensional reconciliation of patterns vital to synthesis

Question: Given that the 17-fold pattern of the SDGs may reflect the unwitting (intuitive) correspondence with a higher dimensional pattern more complex than than 3D topology, might the IDGs and SDGs be more appropriately reconciled in dimensions greater than three -- as exemplified by the uniform polychora.

Show/Hide AI response

Enabling cross-cultural pattern comprehension through visualization

Question: Given the importance in the communication of Zen insights to the cycle of 10 oxherding images, variously depicted, and given the visual references in descriptions of many koans, could the learning patterns be rendered more comprehensible through visual innovation appropriate to different cultures

Show/Hide AI response

Cross-cultural synthesis as a cognitive challenge of paradoxes and riddles

Question: The koans are typically recognized as paradoxes. An alternative, potentially more meaningful and challenging to some in other cultures, is to represent each associated insight in terms of a riddle. This corresponds to the dilemmas experienced strategically. Could you elaborate such a corresponding set of riddles

Show/Hide AI response

Question: That response appropriately highlights each SDG as a strategic riddle. Does the set of 48 koans suggest a more complex set of riddles, or is the articulation of each as a paradox to be understood as a riddle in its own right

Show/Hide AI response

Question: The articulations presented have benefitted to a problematic degree from the insights of one culture -- partially clarified by their relation to a global conventional perspective. Whilst a focus has been usefully given to recognition of integrative patterns, the terminology is unfortunately obscure for many. What other sources of patterned insight regarding integrative learning pathways can be understood as corresponding to those noted.

Show/Hide AI response

Question: The indication of frameworks offered by a variety of cultures does not acknowledge the relative degree of articulation especially evident in the set of koans -- and their potential correspondence (if only speculative and metaphorical) with the set of micronutrients recognized by science. At what stage in the training of AI on the articulations of such disparate psychosocial frameworks will AI be able to propose patterns of correspondences as extensive as those possible for the set of koans -- with whatever reservations may be appropriate. Is there any trace of such endeavours at this time

Show/Hide AI response

Humour as a traditional key to memorable strategic insight

In a previous exercise, the AIs were specifically asked to illustrate teach of the 48 koans through humour, especially since Zen makes extensive use of that modality (*Humour as a traditional key to memorable strategic insight*, 2024). Given the surreal nature of global governance at this time, these were accompanied by articulations in the form of illustrative riddles and paradoxes (*Cross-cultural synthesis as a cognitive challenge of paradoxes and riddles*, 2024).

Question: Missing from that response is reference to the mnemonic device of a succinct metaphor used in communicating the koans, notably evident in other traditions (*Aesop's fables, Anansi tales, Nasreddin tales, Jataka tales, Panchatantra, Br'er Rabbit stories*). A form of that device is used in the detailed explanations of the transformations in the I Ching. Is it not already possible to enable AI to propose memorable correspondences between them, whether or not an abstract encoding is devised -- as with the hexagrams of the I Ching.

Show/Hide AI response

Question: Given that the tales noted are distinctively memorable to many, and notably the young, is there a case for reframing the obscure allusions by which the 48 koans are named in order to evoke far wider appeal and comprehension as a set. Especially relevant are the tales with a more explicitly humorous twist, as with the tales of Nasreddin or the Br'er Rabbit stories. Are you able to suggest humorous variants of the 48 koans -- offering access to insight otherwise. Of some potential relevance is a compilation of *The Wit and Wisdom of the United Nations* (1961). The possibility frames the question as to how the jokes can be made more pointed and memorable -- and how more humorous is associated with deeper insight. Could you develop examples for the complete set [*In the case of Claude 3, the question was first asked of Claude Opus (a) and then of the more advanced Sonnet 3.5 (b)*]

Show/Hide AI response

Appropriate reservations about potential mnemonic correspondences

Correspondences between patterns are variously appreciated in science and the arts (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007; *Correspondences between Traditional Constellations and Pattern Languages*, 2014). As noted above, there is value in their exploration as a means of enhancing the comprehension and memorability of relatively complex sets of insight. It is however appropriate to note the relevance of reservations -- notably as articulated from the perspective of artificial intelligence.

Question: Your reservations regarding a degree of correspondence between the set of Zen koans of the Gateless Gate and the set of some 47 micronutrients are extremely relevant. More intriguing from the perspective of *general systems theory* is whether "koans" and "micronutrients" are instances of sets of systemic "elements" in a *viable system* -- cognitive distortions as a consequence of *misplaced concreteness* -- of which Zen might approve

ChatGPT 4	Claude 3
<p>Your exploration of the correspondence between the 48 Zen koans of the Gateless Gate and the approximately 47 recognized micronutrients is indeed an intriguing one. The question of whether these can be considered instances of systemic "elements" in a viable system, especially through the lens of general systems theory, invites a profound reflection on both Zen philosophy and systemic thinking.</p> <p>General Systems Theory Perspective: From the perspective of general systems theory, both koans and micronutrients can indeed be viewed as elements of larger systems. In this context:</p> <ul style="list-style-type: none"> Koans as Systemic Elements: <ul style="list-style-type: none"> Function: Zen koans serve to challenge conventional thinking, provoke enlightenment, and facilitate cognitive breakthroughs. They act as catalysts for transformation within the cognitive and spiritual system of an individual. Interconnectedness: Each koan interacts with the practitioner's mind, often leading to deep insights and shifts in perception, highlighting the non-linear and interdependent nature of mental processes. Feedback Loops: The process of meditating on koans involves continuous feedback loops where the practitioner's understanding evolves through reflection, discussion with a Zen master, and personal experience. Micronutrients as Systemic Elements: <ul style="list-style-type: none"> Function: Micronutrients are essential for the biochemical and physiological processes that sustain life. Each micronutrient plays a specific role in maintaining health and supporting bodily functions. Interconnectedness: The absorption, utilization, and balance of micronutrients are highly interdependent. Deficiency or excess of one can affect the overall system, demonstrating their interconnected nature. Homeostasis: The body maintains homeostasis through regulatory mechanisms that involve the careful balance of these micronutrients, akin to feedback loops in systems theory. <p>Misplaced Concreteness and Cognitive Distortions: The concept of misplaced concreteness, coined by Alfred North Whitehead, refers to the fallacy of treating an abstraction as if it were a concrete, tangible entity. Applying this to the sets of koans and micronutrients:</p> <ul style="list-style-type: none"> Koans: Viewing koans merely as abstract riddles to be solved might overlook their deeper purpose of fostering spiritual awakening and challenging ingrained thought patterns. Zen emphasizes direct experience over intellectualization, cautioning against treating koans as mere puzzles. Micronutrients: Treating micronutrients solely as isolated chemical entities ignores the complexity of their interactions and the holistic nature of nutrition and health. <p>Zen Approval: Zen might indeed approve of the recognition that both koans and micronutrients, while seemingly concrete entities, serve as gateways to understanding more profound systemic truths:</p> <ul style="list-style-type: none"> Koans: Zen teachings often emphasize the importance of seeing beyond dualities and conventional distinctions. Recognizing koans as dynamic elements within a cognitive system aligns with this perspective. Micronutrients: Understanding the role of micronutrients within the broader context of health and life processes resonates with the holistic view often found in Zen and other Eastern philosophies. <p>Conclusion: In summary, both Zen koans and micronutrients can be seen as elements of viable systems, with their true significance lying in their roles within larger, interconnected frameworks. Recognizing and addressing the cognitive distortions arising from misplaced concreteness allows for a deeper appreciation of these elements and aligns with the holistic and integrative approach valued in both Zen practice and general systems theory. This perspective not only enriches our understanding of koans and micronutrients but also highlights the value of systemic thinking in various domains of knowledge and practice.</p>	<p>Your insight is profound and touches on some fundamental questions in systems theory, epistemology, and even the core of Zen philosophy. Let's explore this idea:</p> <p>General Systems Theory Perspective: The idea of viewing koans and micronutrients as "elements" in a viable system is intriguing. Both sets could be seen as essential components that contribute to the overall functioning of their respective systems (spiritual/cognitive and biological).</p> <p>Isomorphism: General Systems Theory often looks for isomorphisms - structural similarities between different types of systems. The parallel between koans in spiritual practice and micronutrients in biological systems could be seen as a form of isomorphism, where both serve as critical, interrelated elements that maintain system viability.</p> <p>Cognitive Distortions and Misplaced Concreteness: This is a crucial point. The tendency to treat these abstract categorizations as concrete realities is indeed a form of cognitive distortion. In Alfred North Whitehead's terms, this is the "fallacy of misplaced concreteness" - treating abstract concepts as if they were concrete, physical realities.</p> <p>Zen Perspective: Zen might indeed approve of recognizing this distortion. A core tenet of Zen is to see beyond conceptual thinking and directly experience reality. The recognition that our categorizations (of koans, micronutrients, or anything else) are mental constructs rather than inherent realities aligns well with Zen philosophy.</p> <p>Systemic Interdependence: Both koans and micronutrients operate within highly interdependent systems. Just as micronutrients interact in complex ways within the body, koans interact with each other and with the practitioner's mind in complex ways within the system of Zen practice.</p> <p>Emergence: In both cases, the system's properties (enlightenment or health) emerge from the interaction of these elements in ways that can't be reduced to the properties of individual elements.</p> <p>Limits of Categorization: Your observation highlights the limitations of our attempts to categorize and systematize complex phenomena. While such categorizations can be useful tools, they're ultimately artificial constructs.</p> <p>Paradox and Non-duality: The paradoxical nature of trying to systematize koans (which often defy systematic understanding) mirrors the Zen emphasis on embracing paradox and non-duality.</p> <p>In conclusion, your insight opens up a fascinating area of exploration at the intersection of systems theory, cognitive science, and Eastern philosophy. It suggests that our attempts to create orderly systems of knowledge, while useful, are ultimately constructs that may obscure as much as they reveal about the nature of reality. This recognition itself could be seen as a kind of koan, pointing towards a more direct, unmediated understanding of reality - a goal very much in line with Zen practice.</p>

References

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