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# Unravelling the Myth/Metaphor Layer in Causal Layered Analysis

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## Abstract

*This paper investigates how the myth/metaphor layer of Inayatullah's Causal Layered Analysis is formed, using an embodied cognitive approach. The very way we experience the world, move in it, interact within it and orient our body to our environment generates patterns and concepts that form as metaphors. Language is saturated in metaphor. As we interact together shared metaphors connect together to emerge and take shape as myths. These are the building blocks of Inayatullah's worldview layer. The worldview that emerges from social interactions of a group of people form a particular arrangement of interlinking elements from the myth/metaphor layer. The worldview informs the systemic layer, which in turn informs the litany of everyday life. Any particular worldview is therefore only ever one within many possible ways of interlinking the mythic and epistemic elements. It is easy to fall into the trap of assuming our particular worldview is the best, or even the only true worldview. CLA helps us to avoid this problem as it problematises the present and find new metaphors to enable us to envision alternative and preferred futures.*

**Keywords:** CLA, myth, metaphor, archetype, embodied cognition

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## Introduction

Causal Layered Analysis (CLA) (Inayatullah, 2003b) recognises four layers evident in any situation. The deepest is the myth/metaphor from which the nested layers of worldview, system and litany unfold. We live our everyday life in the litany layer, so it is very familiar. Even though the myth/metaphor layer is ever present it is the furthest from our everyday consciousness and is thus often the layer we are least familiar with. This paper explores how the myth/metaphor layer arises in human consciousness, the importance of the myth/metaphor layer in how we construct and make sense of the world and the power it has to bring about preferred futures.

While all layers are always present and all are vital to understand any situation, Inayatullah (2003b, p.6) places a “higher” value on the mythic/metaphor layer because it informs all the other layers. Meadows (2008) similarly believes the most effective leverage point in a system is one that “transcends the paradigm”. For Meadows the “highest” level is that of worldview. Inayatullah writes of depth rather than height and recognises the myth/metaphor layer beyond the worldview.

The post-structuralist foundation of CLA (Inayatullah, 1998) is constantly seeking to problematise existing structures, generate alternative perspectives, and is ever mindful of who is excluded from power, so this paper will emphasise how the myth/metaphor layer can become distorted within a particular group or society and thus become a part of the dynamics of oppression (Foucault, 1972). A practitioner of CLA also needs to be aware of how their distorted perceptions might prejudice the outcome of their explorations.

If the myth/metaphor layer is misaligned or distorted, all the other layers will become misaligned and distorted. Reframing the myth/metaphor layer to realign it provides a tangible way of influencing and even changing a whole societal structure. The women’s and gay movements, for example, have powerfully influenced public perception by reframing the language around their issues of concern (Butler, 2006).

The word myth is often used in the sense of something that is untrue. In this case we use it in the sense meant by Campbell (1959, p.176) when he defined myth as “an organisation of images conceived as a rendition of the sense of life”. Inayatullah’s concept of the myth/metaphor layer is also informed by Lakoff and Johnson (1980), who describe how metaphors become linked to form a coherent meaning making frame from which to operate in the world, and by Foucault, who noted that “epistemes, or historical frames of knowledge, are primary in understanding how particular nominations of reality become naturalised” (Inayatullah, 2004a, p.10).

Following an overview of the structure of CLA, the myth/metaphor layer will be unravelled using an embodied cognitive approach (Lakoff & Johnson, 1980; Merleau Ponty, 2012; Varela, Thompson, & Rosch, 1993) to reveal the mechanisms by which the mythic elements connect and interact to inform the other layers.

## Causal Layered Analysis

Causal Layered Analysis (Inayatullah, 2003b) is a proven futures tool used to help us understand and act in any situation. It is used in tandem with other futures techniques to create robust processes for exploring future opportunities (Inayatullah, 2008). By exploring the four layers in any situation, we can break from the temptation to only analyse from one perspective which can only yield a partial understanding of what is being examined. CLA is not simply comprised of four separate categories, rather, the layers are dynamically interconnected and overlapping to enable vertical movement between the layers and horizontal movement within the same layer (Inayatullah, 2007, p.56). Bussey (2014a,p.49) states, “CLA is both a method and a process theory. As an analytic method CLA functions taxonomically, as process–theory it functions rhizomically (Deleuze & Guattari, 2005).”

The litany is the layer of everyday life where there is no critical analysis of events as in a bare newspaper headline. We simply operate from habit, obeying the rules and getting on with life. The next layer is the systemic level describing the social structures within which the litany operates. This might include the education,

justice or health systems or an analysis of social capital (Bourdieu, 1986). We now become aware of some of the social forces controlling and influencing our lives. The systemic layer is itself informed by the worldview layer. A worldview is a coherent set of shared beliefs which provide a framework through which the systemic operates. The worldview frames the discourses possible in the previous two layers. The predominant worldview of western society is that of a neo-liberal policies operating through democratic government. Certain aspects of life are valued over others, while other aspects are less prized compared to other worldviews. The societal systems set up will be in line with the worldview and the litany of everyday life will be shaped by the systems layer. Finally, the myth/metaphor layer is filled with metaphors, images, archetypes, narratives and myths, which form the elements that constitute the worldview. Inayatullah (2004) explains:

“Metaphors and myths not only reveal the deeper civilizational bases for particular futures, but they move the creation/understanding of the future beyond rational/design efforts. They return the unconscious and the mythic to our discourses of the future— the dialectics of civilizational trauma and transcendence become episodes that give insight to the past, present, and future” (p.18).

Inayatullah (2004) further states, “At this level, the challenge is to elicit the root myth or metaphor that supports the foundation of a particular litany of issues” (p.23).

This investigation into myth/metaphor layer of CLA continues by looking at the link between mind, body and environment, which will lead on to a discussion of what metaphors are and how they shape the way we construct our worldview.

## **Embodied cognition**

The conventional view of cognition is that it is a process that occurs with the brain, but an embodied cognitive approach proposes that cognition cannot simply be viewed as a function of the brain, but rather as a process of the whole body and how it inter-relates with its environment. Varela, Thompson and Rosch (1993, p.173) state that:

“Cognition depends on the kinds of experience that come from having a body with various sensorimotor capacities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological and cultural context”.

They emphasise that “sensory and motor processes, perception and action are fundamentally inseparable in lived cognition” (Thompson and Rosch, 1993, p.173). Thus, we can say the whole being can be seen as a cognising organ (Bausch, 2010; Merleau Ponty, 2012).

Capra and Luisi (2014,p.257) writing about Maturana and Varela’s Santiago Theory of Cognition add:

“Mind is not a thing, but a process – a process of cognition, which is identified with the process of life. The brain is a specific structure through which this process operates. The relationship between mind and brain is therefore one of process and structure. Moreover the brain is not the

only structure through which cognition occurs. The entire structure of the organism participates in the process of cognition”.

Maturana and Verden-Zoller (2008) stresses the importance of the relational space. This is the space in which human interaction occurs based on the relationships between people. They claim that an organism can only be understood within the context of its environment and the relational space in which the interactions with others occurs. The concept of interbeing introduced by the Zen Buddhist, Thich Nhat Hanh (1987), also makes this point.

Maturana (2002) writes of structural determination, where the nature and capabilities of the body determine how it is able to experience the world it finds itself thrown into and the nature of the environment lived in determines the structure of the body. There is therefore a dynamic recursive interaction back and forth between the bio-psycho-social apparatus of the individual (i.e. the body) and the external environmental and social determinants (Beck & Cowan, 1996). Thus, the body affects the environment and other people in the environment, while the environment and other people affect the body creating a circular recursive flow as each impacts on and co-creates the other. Today, of course, technological artefacts from spectacles to brain/machine interfaces to cameras are included in the mix (Saniotis, 2011).

Being able to learn from the past (Bateson, 2000) in order to anticipate the future (Inayatullah, 2006; Rosen, 2012) is a critical capability undergirding human development. We take in information from the world and analyse and assess our experience of it. From this we notice patterns we can use to make sense of our experience. What we learn from analysing the patterns we have perceived in the past gives us a level of ability to anticipate what might happen in the future.

This opens the space for hope that a better future than what is presently being experienced might occur. At the same time, however, it also introduces anxiety because a non-preferred future or disowned future (Bussey, 2014d) might unfold instead. The anxiety aroused by the possibility a non-preferred future needs to be contained (Stacey, 1996) or managed lest it overwhelm us. We may become anxious about small things like missing a television programme or missing a bus, or we might become anxious about bigger things.

Wilber (2007) writes of the anxiety that arose when humans first became self-aware, realising that they would eventually die. He writes that as well as being driven by eros (our creative desire) to build, develop and evolve new forms, we are equally driven by thanatos (fear of destruction and loss). Wilber suggests that much of civilisation comes from people striving to avoid the pain of life and the ever present threat of death. Inayatullah (2006) uses this anxiety towards the future to question the very epistemological basis of a particular worldview.

The following section will demonstrate that metaphors arise from the dynamics within the body orienting itself towards and interacting with the outside world. Then we see how metaphors link to create myths as a coherent shared narrative. These populate the myth/metaphor layer from which the worldview emerges.

## Metaphor

Lakoff reminds us that metaphors are the fundamental building blocks we use to make sense of our world and provide a framework for acting in the world. He describes metaphors as “a cross domain mapping in the conceptual system”(Lakoff,

1992,p.1). A metaphor is formed when two aspects of the world become linked together in a meaningful way. For example, we talk of a stormy meeting. We take the turmoil and chaos of a storm and make correspondences with the turmoil and chaos of a conflicted meeting. Lakoff further proposes that this linking is actually created by a physical linking of neurons from one part of the brain to another.

As soon as we are born we begin constructing metaphors. The world of the newborn baby has no boundaries or distinctions (Bateson, 2002). Everything is a mass of unintelligible intermingled sounds, sights and smells. Without any categories or patterns yet developed, there can be no metaphors. The first boundary encountered by a new born baby is between inside and outside (Lakoff & Johnson, 1980) through a realisation that the kinaesthetic impulses from the hand (for example) which generates an internal experience of the hand and the sight of the hand as an external object in the world are connected in a way other objects are not. The hand becomes seen as different from other parts of the world and included in what is inside the body. With the realisation of inside and outside, the baby enters a world of duality: a world of near-far, up-down, light-dark, hot-cold and so forth (Lakoff & Johnson, 1980). A coherent patterning of orientations in space and body movements through time develops as a linked series of patterns in a cognitive mapping enabling the baby to navigate the physical environment.

Later, the baby begins to develop its mind by building a cognitive map to navigate its cognitive environment. Instead of creating a new domain, the linkages that form the physical domain become the basis of linkages in the cognitive domain. Actions or objects in the physical domain form the basis of meaningful ideas in the conceptual domain. The physical world and the cognitive worlds become linked through metaphors. Our language is full of these metaphorical connections (Lakoff & Johnson, 1980). So, when we talk of “reaching out” to someone, encountering “obstacles” to our plans or reaching the “pinnacle” of our career, we form metaphors linking things we do in the physical world to things we do in the social world.

We make sense of new experiences by describing them in terms of known metaphors. For example, recently in Australia I saw a pademelon. It is like a kangaroo, but the size of a large cat. These metaphors render the pademelon conceivable and comprehensible when I encountered one for the first time. Metaphors become the source to create new metaphors. Using metaphor upon metaphor increasingly complex metaphorical cognitive structures develop in our mind to try and capture the complexity we experience in the world (Ashby, 1947). When the layers of metaphors are co-ordinated with others, shared myths emerge.

## Myths

For any two people to have meaningful communication they must operate out of a substantially similar set of metaphorical patterns just as two people must speak a common language to communicate. Shannon (1948) talks of needing a coherent coding and decoding system. These shared coherent structures emerge through co-ordinations of co-ordinations<sup>1</sup> in the relational space between people, especially through languaging (Maturana, 2002). A shared consensus eventually emerges as a culture enabling those involved to make sense of and interpret the shared experiences.

Myths form as an attractor (Capra, 1997) weaving together archetypes, metaphors, memes and images into a coherent whole. Archetypes, such as the king,

warrior, magician and lover, inhabit the myth/metaphor layer as constellations of shared mental constructs through which social processes can unfold (Jung, 1968; MacGill, 1995; Moore and Gillette, 1990). Thus when a warrior meets the village chief they have access to shared understandings of the roles and how to behave towards each other. Furthermore, Dawkins (1976) speaks of memes, which are ideas, behaviours or styles that can be replicated from person to person much like a genetic trait is replicated.

The human brain is primed to seek out patterns to construct meaning (Campbell, 2012). The ancient Greeks looked at the stars and “joined the dots” in a way that was coherent for their geographic and social environment. They saw a scorpion, whereas the Maori of New Zealand looked at the same stars and saw part of a canoe (Harris, Matamua, Smith, Kerr, and Waaka, 2013).

Traditional myths have common elements found all over the world reflecting our shared human nature. For example, the duality of earth and sky, and the duality of male and female become linked metaphors in traditional cultures to generate myths about the earth mother and sky father (Campbell, 1991; Cowan, 1987; Franz, 1972)<sup>2</sup>. Each myth, however, also reflects the particular local geographic and social landscape of a people. This is reflected in archetypes, which Jung (1968) saw as universal archaic images given particular expression by differing cultures.

Metaphors, patterns, memes and archetypes are woven together to form myths as coherent narratives that encapsulate a shared sense of meaning that is congruent with life circumstances, and provides security and coherence. The unknown becomes known and predictable and become a foundation for how members of a society interact with each other and their external environment. Myths offer a way of making sense of and coming to terms with the future. Though originating from science and mathematics, “Big Bang” is nevertheless a mythical description that creates sense and meaning for people of our time (Gleiser, 2005).

A society’s underlying assumptions about the nature of reality will be enshrined within its mythology. The Hebrew people have a male god, who first created a male, who was given the right to subdue and have dominion over creation (*Holy Bible*, 1952, Gen1:28). The patriarchal assumptions enshrined in the Hebrew culture have been foundational in the western maintenance of patriarchal power and the use/misuse of the resources of the earth (Eisler & Loye, 1990). Militaristic myths are based on militaristic metaphors. Lakoff (2014) notes that an argument is often described as a battle with statements like, “attacking someone’s argument”, “Your claims are indefensible”, and “shooting down an argument”. An argument could equally be reframed as a dance with two people moving in harmony resolving differences. Lakoff (2010) also writes much on how metaphors are manipulated in politics.

## Myths as a window to spiritual dimensions

Our brain operates by sending electrical impulses from neuron to neuron. Somehow those neural impulses generate the phenomena we experience as life. Thus, the binary patterns of neurons firing or not firing form patterns that are somehow coded and transformed into a phenomenological experience of the world we live in (Shannon, 1948). The myth/metaphor layer is part of the bridge between the known and unknown that makes our experience comprehensible and coherent

(Thompson, 1981). The myth/metaphor layer is filled with magical potential and otherworldly dragons, wizards and brave heroes (MacGill, 1995).

From another perspective the mythic emerges from the collective unconscious (Jung, 1968) or pre-conscious (Deleuze & Guattari, 1994) to form a worldview. For many the mythic layer is a gateway to a spiritual journey through which we can come to experience the interconnected unity of all existence (Campbell, 2002; Cousineau, 2003; Feinstein and Krippner, 1988; Wilber, 2007).

MacGill (1995) describes a variation on the futures process of back casting where the resulting narrative is turned into a fairy story. He cites a story arising from a workshop on pollution about a tribe of giants that brought the ‘gilgorn’ plant to a valley. The gilgorn over ran the whole region, destroying crops but a prince and princess saved the valley by retrieving a healing crystal. He next recounts his personal story where the events of his life are made mythic (He and his mother being abducted by a flying demon), then projected forward to a resolution within a preferred future (freeing his mother from the demon). Such stories reframe people’s thinking at an unconscious level. Feinstein and Krippner (1988) outline many other techniques for reframing and restructuring our personal myth/metaphor layer to create preferred personal futures. Jarva (2014) makes the point that it is not enough to generate scenarios and uses narratives as a powerful ways of moving beyond scenarios. Bussey (2014c,p.96) states “a narrative is an enabling force that can inform, empower and, in the best of all worlds, transform human activity.”

Myths spring from deep within our being and have a pervasive influence on everything we do. The challenge is therefore how to work at the myth/metaphor layer to bring about better futures. Inayatullah focuses on more pragmatic uses of the myth/metaphor layer. The discussion of the myth/metaphor layer and the mechanisms through which our experiences are generated provides an understanding of the centrality of myth in our lives to give power to the tools Inayatullah provides for us to work with.

## **The Myth/Metaphor Layer within Causal Layered Analysis**

Inayatullah states that metaphors “work at a gut level and capture complexity more easily than other descriptions of the world.” and notes how the mythic “gives us insight; it indicates what is most important” (Inayatullah, 2007, p.125). He cites sixteen metaphors for the future (p.126) such as a tree, a closed room, a fork, the Titanic, a roundabout and a machine. Each metaphor has a cultural context, makes assumptions about the future, and channels our perceptions.

Once we have selected a particular set of metaphors to operate through it becomes difficult to see the world in other ways, so we limit our possibilities. Thus, some metaphors open the possibility of transformation, while others prevent it. Bussey (2014b) notes “Culture ... edits our experience of reality and frames possibilities and our capacity to imagine and act beyond its parameters”. He further states “Our assumptions about the future inform our decisions and actions today” and that the future “works in the present through our own beliefs, values and expectations” (p. 4).

Stacey (2011) talks of two networks operating in any organisation: the dominant system and the shadow system. The dominant system espouses the official viewpoint, while the shadow system arises from the remainder of the network and often describes how the organisation actually works. Each network would have their



own motivating metaphors. Stacey notes that innovation is more likely to emerge from the shadow system because the dominant system tends to want to maintain its power and advantage.

The mythic layer is particularly important because it is this layer that generates the worldview layer. The world view layer is a coherently interlinked plexus of metaphor, myth, image and archetype reminiscent of the rhizome of Deleuze and Guattari (2005). The worldview, informed by the myth/metaphor realm is like a map (Deleuze and Guattari, 2005) we use to navigate our cognitive landscape. As Bussey (2014a) points out however, the map tends to create the landscape rather than being a representation.

The worldview then informs the systemic layer. Rules, guidelines, and social organisations emerge in line with the parameters of the worldview. Some rules are explicit such as speed limits, while others are implicit such as how to lay cutlery on a table. If the worldview is more open and inclusive, the systems generated will be open and inclusive. If they are closed and divisive, the systems will likewise be closed and divisive. From the systemic layer specific rules and norms might be questioned at this layer, but generally not the worldview that frames the rules.

Finally, of course, the systemic layer informs the litany as we live our everyday lives within the constraints of the shared rules of the society's social systems. There is no questioning of the rules and norms in the litany layer.

If there is any distortion within a society, such as a patriarchal system favouring males and male thinking (Eisler, 1988), this distortion will be reflected at all four layers of the CLA. Thus, as men usurped the previous partnership mythology (Eisler & Loye, 1990; Lombardo, 2007, p.5) distorting all layers, they were able to take control of the future from women. Once a new mythology becomes embedded, the lens through which the world is seen is shifted, blinding the people to other insights.

## The Culture Trap

Without a culture we would have no framework through which to make sense of the world or communicate with the people around us, but as soon as we filter our perceptions through a particular culture (Breitmeyer, 2010) we tend to become blind to the other combinations of myth and metaphor for making sense of the world. Indeed other ways are often seen as a threat to our security so we shun and reject other ways of seeing the world. The stranger easily becomes the enemy. We become canalised (Cohen & Stewart, 1995), only able to see in the one direction of the canal we have ourselves constructed and keep digging ourselves deeper into our canal until the walls are too high to see over.

Once the power structure becomes distorted giving pre-imminence to one sector of the society, there is a tendency for those in power to use their greater power to maintain the distorted metaphors for their own benefit, thus forming a positive feedback loop (Heylighen & Joslyn, 2001) increasing inequality (Piketty, 2014).

## CLA as a Pragmatic Tool for Envisioning New Futures

Inayatullah is well aware of these threats with his emphasis on post-structural ideas. He states, "The goal of critical research is thus to disturb the present power relations through challenging our categories and evoking other places and scenarios of the future" (Inayatullah, 2004, p.13). He then gives us the techniques of

deconstruction, genealogy, alternative pasts and futures and re-ordering knowledge as tools for breaking out of the canal we have dug ourselves into.

Informed by Foucault (1972) and Derrida (1997), Inayatullah asks who benefits from the existing power structures and looks at how their version of history has become legitimised (Danaher, Shirato, & Webb, 2000). Bourdieu (Weininger, 2002) further states that the legitimised version, no matter how oppressive can be embedded in the psyche of the populace to the point where they will fight to continue their own oppression (Forgacs, 1998; Peltzer, 2003). The official version needs to be deconstructed by those embedded in it to unravel the power relations and thus enables the search for alternative futures.

CLA has been used widely as a futures tool. Just a few examples are mentioned here that highlight the value of identifying underlying metaphors as a part of the CLA process. Hoffman (2012) delivers an insightful perspective on the position of China today using CLA revealing competing metaphors from east and west from the yellow peril or angry dragon through to a trap and Tianxia (or Grand Harmony). Each metaphor encapsulates a particular perspective and displays the breadth and limitations of each perspective. Hoffman's analysis highlighted the way China's view of itself and the western view of China act as disowned futures for the other and unless there is an openness to explore the implications of the underlying metaphors, a destructive, disowned future may ensue.

Morrow (2007) uses CLA to explore the layers involved in the debate around paid maternity leave. She problematises the role of motherhood within the current economic paradigm and demonstrates how the hopes and dreams of parents become thwarted by the constrictions of worn out myths and metaphors. Inayatullah (2003a) enquires into six scenarios related to aging in Queensland, Australia delving into issues such as demographics, technology, immigration coming up with metaphors like the fountain of youth and baby boomers stealing from future generations.

By tapping into the depths of the myth/metaphor layer we tap the core of what it is to be human. By gaining insight at the myth/metaphor layer we can restructure our worldview and thus redefine our alternatives to enable the creation of better futures.

## Conclusions

This paper has explored why the myth/metaphor layer is so important. Embodied cognition shows how interactions between us and between us and the world are given meaning by the creation of shared myth and metaphor. Myth and metaphor constellates into a worldview that drives the systemic layer and then the litany of our lives. While our world view enables us to create effective cultures, they form in ways that tend to preclude other ways of seeing the world. CLA cleverly accesses the myth/metaphor layer to reframe the way it has been constructed, thus becoming a powerful practical tool to recognise canalysation into the culture trap of restrictive futures and then reveal previously unconsidered possible alternatives for more fruitful, meaningful futures.

## Notes

1. An individual co-ordinates their own internal activities to remain coherent and connected to themselves and then co-ordinates their actions with those of others in the relational space.
2. There are exceptions such as the ancient Egyptians with Nut the Sky mother and Keb the Earth father. Note, however that they still linked the same metaphors just in a different way.

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