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**Leadership as dynamic wholeness making:** *Reflections on the holistic art and science of transformative leadership in a VUCA world*

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*Abstract*

*In this paper we review leadership from the perspective of complexity theory and an emerging holistic science. We see leadership as creating wholeness in a fluid, dynamic environment. This means that leadership is less about problem solving and more about evolutionary co-creation. In a globalized connected world, leadership is increasingly required to deal with atypical situations characterized by a complex non-linear VUCA world – where events are unforeseen and even unpredictable. Hence the study of complex dynamical systems can provide useful insights with its concepts of dissipative structures, co-evolution, and autopoiesis. Rather than employing pre-packaged response models, situational immediacy calls for a coherent, creative leadership response more akin to poetry, rhythm and meaning-making. Naming wholeness, fragmented-ness and brokenness in order to more fully able to be and become - individually and together – through co-sensing and making meaningful, incisive choices is the work of leaders and poets.*

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**Key words**

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**Introduction**

One helpful way to understand the emerging nature of organisations as complex adaptive systems is the measurement matrix of the fitness landscape, related to enabling conditions and response capacities. In the contemporary business landscape, competition is exponentially amplified by trends in the digital marketplace / digital public space, which through global connectivity has been opened up to all-comers. As more players, inputs and externalities effect the organisation, coherence is inevitably impacted, identity is challenged and through fake news, even its purpose can be corroded. Because they are dealing with so many potentially influential and corrupting information streams, in such a landscape organisations become highly energized. This enhanced disturbance can negatively reflect in their culture, which in turn effects emotions of those involved, generating increased stress and anxiety.

With complex energy dynamics compounded, organisations are more prone to volatility and instability to the extent that they can be described as increasingly dissipative structures, especially as these energetic stresses pressure organizations away from coherence on the continuum from equilibrium towards chaos. On the global scale the financial crisis of 2008 was surely a function of these dynamics, as too was the collapse of Carillion on a national scale.

The increased energy flow in a digital market place thus tends to push organisations towards further dissipation unless they develop the sensitive and agile capacity to manage these influences. Where quantifiability is no longer possible due to the complex nature of the fitness landscape, new forms of leadership come into their own. These have been characterized variously including as chaordic and poetic. Their strength is their focus on developing our inner capabilities and human nature as bio-psycho-social-spiritual beings.

Leadership is thus about the preservation and increase of a certain kind of wholeness. Creative leadership includes the capability to catalyse autopoiesis as on-going generative, self-organisation and re-invention. The intercultural dynamics unleashed in the digitally interconnected global economy, accompanied by the potentially disruptive social and economic impact of technology, add further impetus to the phenomenon of accelerating co-evolution and emergence.

'Best practice' is shown to apply less in such a context, which calls on leadership to shift from its typical reliance on the rational analysis of hard data, to a finer quality of nuanced sensitivity, like a seasoned sailor, who even when asleep, can somehow unconsciously sense changes in wind force and direction.

A new way of 'thinking' about any 'problem space' is thus advocated to include a transformed way of feeling and being-with-ness, that embraces the phenomenon of systemic sensing and intuiting. Metaphors based in nature rather than machines become appropriate. One such is the well-known, coordinated, instant, yet fluid movement of multiple actors described in murmurations of starlings, though this could equally be applied to surfers or skiers instantly responding to waves or snow conditions and to each other. They access a seemingly instantaneous knowing of when, and how, to employ internal and external energy for outstanding individual and collaborative performance.

The dissipative structural nature of organisational 'being' requires it to hold its form in a state of change. It's 'being' is not characterised by the form of its organisation, but by the capacity to reform its organisation, hold its purpose relevant to a changing world, whilst remaining coherent with its informing and enlivening values. Since living wholes continue to emerge and adapt, so leaders are path finders with their teams. They embody the wholeness of the organisation and orient it toward its vital success thereby enabling the participating member's deeper becoming.

The organization's purpose and identity serve to define its directional 'stance' in the world. Shape-shifting in its adaptability, it still maintains its integrity. For this enablement, as we have suggested, leadership requires a deeper sensing and intuiting capacity capable of harvesting the intrinsic intelligence of a broader organisational field - a phenomenon typical of any living ecology. It points to the potential shift to a 'living systems leadership" perspective. This broader organisational sensing capacity enables access to the deeper 'creative-response-potential' from both the individuals in all roles and the broader functional ecology. It in turn requires fine-tuned relational ability and an inspired shared purpose capable of calling forth and inspiring self-orchestration.

Dee Hock (1999) has suggested that we already have that ability within us and we simply need to allow it in ourselves and others around us whilst disabling the blocks to that inherent capacity.

*"Without question, the most abundant, least expensive, most underutilized, and constantly abused resource in the world is human ingenuity…. exceptional performance arises from the relationships and interaction of those from which it is composed."*

Hock is perhaps suggesting that if you employ people who have already engaged their deep humanity, leadership will take care of itself. This perspective makes education in and nurturing of a state of 'exquisite attendance' even more significant - especially as it is hardly taught in our schools,

in our universities or even invoked in our churches. It is being able to engage a state of inter-subjectivity, or 'phenomenological empathy', that in turn enables qualities of presence, agility, resilience, creativity and ingenuity to emerge. Since it is possible to describe any emotion as energy seeking purpose, we need to detect those emotional responses that prevent energy flowing to the shared purpose and outcome that constitutes the destiny we collectively seek.

In this time of accelerating emergence, the application of conventional scientific method typically offered in management schools might thus rather be transformed to include leadership acquiring more characteristics of an art form. The shift in focus will be to explore the 'art' of leadership where engaging imagery and compelling narrative add meaningful 'feeling' to activate creative imagination. The anticipated quality of enhanced engagement is intended to enable a more creative interface capacity between the dynamic present and beckoning potential futures.

Whilst the new capacity of big data processing can assist in the more accurate analysis of situations, the applied algorithms still largely rely on linear processing, more recent experiments with non-linear self-learning applications of artificial intelligence notwithstanding. However, we stress the greater importance of a finer quality of leadership sensing and intuiting which enables the harvesting of the intrinsic intelligence from a broader range of stakeholders inside and outside the organisation. This holistic stance is better capable of supporting 'leadership poetics' and differs from more conventional approaches in that it offers new ways of 'sensing' 'thinking', 'articulating' and 'doing'. It requires the presence to 'remain in process' whilst comprehending from a meta-perspective and responding systemically.

South African physicist, Adriaan De Lange for example, defines that meta-perspective systemic response and identifies seven essentialities of creativity that support it:
- The 'sureness' that comes with a defined sense of purpose
- The 'wholeness' of a comprehensive eco-systemic field of relationality
- The 'otherness' that ensures an uncompromised identity
- The 'openness' that enables life-sustaining energy flows and enriching interdependence
- The 'spare-ness' that ensures it is sufficiently resourced but unburdened with energy dissipating baggage
- The 'liveness' that comes from a vital sense of being/becoming
- The 'fruitfulness' that comes from the recognition of its unique productive qualities coupled to ingenuity

Intriguingly, in that order, the seven essentialities can be correlated metaphysically to the human endocrine system: pineal, pituitary, thyroids, thymus, Islets of Langerhans, adrenals and gonads. We will return to this observation in the conclusion.

What Hock's concept of chaordic leadership perhaps is pointing to is that the main inhibiting factor to unleashing adaptive-creative-capacity of human beings is the imposition onto people and organisations of a mechanistic/reductionist world-view. This disservice can be accomplished internally, externally, culturally, socially or scientifically. Chaordic leadership requires getting out of our own way to fully engage the world and ourselves holistically, which could otherwise be described as the art of 'being' well.

**Real-world theory and practice**

Our own recent experience of research in practice reveals that a new general wave of organisational restructuring is inevitably taking place as a response to the dynamic world context. Employees experience living in a state of flux whilst organisations struggle to prepare for change. Our experience is however that leadership is beginning to recognise the need to manage the change

process more effectively, and especially important is the need for a focused process of employee reintegration after such restructuring processes. We consequently find it helpful to ensure:

- A re-clarification of purpose
- The re-establish of sense of identity
- The restoration of a sense of belonging
- The awareness of being recognised as a valuable asset

Consequently, in the process of restructuring to accommodate new dynamics, a new culture also needs to be enabled. Allied to this is our finding that at this time of large-scale retrenchment, that process itself requires more sensitive management, especially in respect of the experience of those remaining. This management sensitivity demands transparency, honesty and sincerity.

We find that with many organisations experiencing a growing universal problem of disengagement, they need to become aware of the negative impact of insufficient feedback.  This we identify as a problem of the organisation being seen as mechanism rather than consisting of human beings. We find that often management, including human resource management, is felt by employees to be out of touch with real daily experience of workforce. Consequently, they feel that measures are introduced which are considered to be helpful to employees without proper consultation on the ground.

Our finding is that employee and organisational resilience is enhanced when management invests time and energy in more intense human engagement with the team. Loyalty is improved when employees feel heard and understood and where they feel they are valuable.

We have identified the danger in this digital age of the emergence of a dehumanized culture, where so-called solutions are imposed without in-depth research in staff coal-face experience.  Our conclusion is that humanizing the workplace contributes to engagement and productivity; hence our concept of 'phenomenological empathy. Continued organisational success requires:

- Creativity - finding better ways of delivering value
- Innovation - developing better products and services
- Freedom to explore - which in turn requires a sense of security

We recognise that whilst in this age of change, organisations cannot guarantee employment, we have seen that a sense of basic security can still be maintained. With regular and comprehensive feedback, a defined sense of purpose, a clarified sense of identity, and especially sincerity and transparency in communication, there is a sense of 'being in it together'.

So, whilst organisations cannot predict the future, they can reassure their staff that they are partners in an uncertain future. This is enabled when their experience of the organisation is not one of it being a machine with them filling roles (slots) within it, but rather that they are indeed the organisation. We have observed that it is the human dimension of relationships that weaves together the real operative organisation. And the emergent culture is the behavioural expression of their daily relationships, ultimately informed by human values. Our observations confirm the power of an enabling and enlivening narrative where "…we are part of the story". And that inclusion can be translated into everyday practice.

**Literature review and observations**

Davidson and Rees-Mogg (1988), anticipate the far-reaching impact of technological change in the current economic revolution. Premised on the shift from industrial to an information-based society, they suggest this change could liberate individuals at the expense of twentieth-century nation state. They observe that as computer networks are changing the world economy, so too will the structure of world society. They foresee the potential 'collapse of the welfare state' with individuals increasingly required to become responsible for their own destinies. Individuals can adapt by becoming entrepreneurs, private contractors, and be in control of their own finances. This will be enabled by their easy access to exponentiating computing power. Rather than being daunted by these prospects, the authors advise taking advantage of the coming new age; thereby overcoming the fear of being destroyed by its impact. This capacity is attributed to the 'sovereign individual'. Since, from our perspective, this must not be interpreted as advocating social Darwinism, we shall presently stress the growing reality of collaborative networks which still represent organisation, but of a transformed order.

Coping with such demands, we suggest, will require that leadership learns to lead in a context of movement and process. We suggest it includes the generation of a living narrative able to support and enliven an inspiring vision. This of necessity includes how to build trust, and especially how to access and mobilize the deeper resources of all members of the team. We consequently offer two important transformative insights, firstly:

> *The essential principle of leading people still remains universal - that is to offer the fullest version of 'yourself' to your team.*

Fleming and Delves (2017) emphasise the need to place human experience centre stage; being a leader, they stress, is always personal, and that is why the authentic leader leads 'better'. Such a humanization of leadership they stress, happens through emotional intelligence'. This quality they describe as a feature of the 'embodied leader'. We in turn have suggested that leaders embody the wholeness of the team, or organization in orienting it towards its vital success.

McKergow and Bailey (2014) with their notion of the leader as host, confirm that the perspective of the embodied leader is a new, yet ancient, look at leadership. It is about great engagement, and the secret to moving forward is knowing when to step back. It is no longer about being the hero, the one who makes everything happen. Rather it is about applying hosting strategies to achieve greater agility, flexibility and responsiveness. And this requires a highly tuned sense of relationship building and engagement. The authors reassure that intrinsically we all know how to be the host, but especially now it is time to sharpen these skills to apply in the organisation. The second transformative insight is this:

> *Since the global condition of change continues to accelerate, advanced strategic planning, whilst remaining necessary, becomes inadequate. Leadership must now learn to plan and strategize 'on the move'.*

Sharpe and van der Heijden (2007) helpfully summarise insights gleaned from the Oxford Futures Forum (2005).
- Developing insights into the drivers of change
- Converting that insight into effective action
- Extending scenario approaches to cope with the increasing demands for rapid responses to a complex world.

They confirm our contention that many management methods still attempt to reduce decisions to some standardized process with the intention of delivering fixed results in some fixed time schedule. Building on their notion of the 'art of strategic conversation' they offer a method of 'scenario thinking' that will make space, as they put it, *'…for the essential magic of original insights to happen'*.

**Fourth industrial revolution**

The so-called fourth industrial revolution, introduced at the World Economic Forum, provides a significant context for leadership and demands a deeper understanding of its human and environmental complexity. Rather than become trapped in its technological tow, our intention with this paper is to assist a more agile form of leadership to take their teams and organisation to worthwhile and sustainable outcomes through the soft power of influence. And doing so within that very context of the technological revolution. We caution that the accompanying experience of organisational stress can now serve as a signal that is time to access the deeper resources of the team by applying the principle of 'antifragility'.

Taleb (2012) divides the world, and all that's in it, (people, things, institutions, ways of life) into three categories: the fragile, the robust and the antifragile. We are 'fragile', he suggests, if we tend to avoid disorder and disruption for fear of the mess they might make of our lives. Whilst we might think we are keeping safe, by attempting to pre-regulate all eventualities, we are rather making ourselves vulnerable to the shock that will tear everything apart. We are 'robust' if we can stand up stoically to shocks without flinching, and especially without being willing to change who we are. But we are, he affirms, 'antifragile' if life's shocks and disruptions tend to make us stronger and more creative; better able to adapt to each new challenge we face. We have suggested the leader enables the deeper becoming of individuals and the team. Thus Taleb's 'antifragile' notion of becoming stronger in engagement with the dynamic world offers the opportunity to change our attitude to the disruptive current era and see it as an opportunity for accelerating human emergence and evolution.

With a deeper understanding of the fluidity of the current organisational context, and the required 'process' type response, we therefore encourage leadership to develop a moving narrative with an inspiring vision - a story in which all employees can become a part. This meaningful core-value focus will help bring more 'antifragile' resilience to their organisations. Especially by building trust and engagement, thereby accessing and mobilizing the deeper resources of all and be better placed to transform current and anticipated challenges into creative opportunities.

Accordingly, Barrett (2010), suggests that the important leadership shift is from 'I' to 'we'. This reflects an evolution of consciousness in the organisation. He also posits that the ability to handle increasing levels of complexity is an evolutionary characteristic. This is not related to age, but to psychological maturity. Such evolutionary competencies include adapting, learning, bonding, cooperating; these are all aspects of psychological maturity. Ultimately, they represent the ability to individuate and self-actualize. Handling complexity, he suggests, is enhanced by levels of exposure to experience. Although the ability to handle complexity does increase with age, Barrett suggests this still proceeds through three proposed developmental plateaus of mental complexity.

- The socialized mind: characterised by wanting to meet other's expectation.
- The self-authoring mind: characterised by furthering one's own agenda, striving for freedom and independence, but being accountable and taking initiative (see the 'sovereign individual').
- The self-transforming mind: characterised by the understanding of being interdependent, of constantly seeking information, of finding meaning, and of being of service.

Barrett's insights resonate strongly with those of Greenleaf (2002) who confirms that truly great leaders are not motivated by the selfish desire to increase their own power and prestige, but by a yearning to help others. To be a great leader, he suggests, is to be a servant, placing employees, customers, and community as the number one priority.

We have suggested that when developing our approaches to effective leadership in the fourth industrial revolution, leadership can re-imagine the transformational opportunity brought by the challenges of the day. The leader as whole-maker thus couples human meaning with deep sustainability in future visioning and thus supports the building of trust and engagement. She/he thus becomes as servant of both the present and long-term future human potential.

**Living systems and networks**

The capacity to deal creatively with emergence calls for a fundamentally transformed perspective. Accordingly, Capra and Luisi (2014) suggest that a new systemic conception of life is at the forefront of science. They emphasise how this view embraces the dynamics of complexity, the nature of complex networks, and of patterns of organisation. They include notions of autopoiesis (the capacity to self-organisation as suggested in the antifragile notion), and dissipative structures (highly flexible and adaptive nature of complex living systems seeking coherence in a dynamic environment). They point to the emerging phenomena of social networks, and the need for a systemic understanding of evolution. All these, they stress, have implications on the current global ecological and economic crises. This point is further emphasised by Morin (2008) who postulates a domain of complexity in which living order has a crucial organising role. He highlights the processes of recursion and offers a perspective of holism in which activities of the whole, as 'emergents', loop back to constrain parts.

The leader as dynamic wholeness-maker thus imagines the nature of the activities that define the whole and its recursive function. In acting 'systemically' leadership identifies, as far as possible, as many of the factors presented in a challenge and in enabling its inherent opportunity.
We create the enabling environment (hosting) where key players feel welcome and safe to participate fully. We access the collective intelligence in order to better deal with the complexity described above by giving careful consideration to the required participation in the process. Whilst this is relative to any team member's potential contribution, we also can include participants with unknown capacities, and we then begin to engage in a process of creative thinking together.

**Harvesting the team' s creativity**

Senge (1990) warns of the delusion of trying to simply 'learn by experience', especially when attempting to understand the future by relying on the past. The primary threat to our survival, he suggests, is not so much from events, but rather from the slow gradual processes (emergence) to which we are ninety percent blind. Consequently, the myth of automatic growth through teamwork, he ventures, results in most teams *'…actually operating below the lowest level of IQ in the team'*. Senge describes this as 'skilled incompetence'. We suggest that this insight presents a serious challenge to the comforting notion of 'best practice'. What this further emphasises is the identified need for organisations to develop more subtle change sensors. Van der Heijden (2005) accordingly warns that one perfect solution does not exist. The world, he asserts, is too uncertain for that; however, he reassures that a solution that will work for us is out there - waiting to be discovered.

The approach he offers therefore evolves from 'finding the best strategy', to 'mobilizing the best strategising process'. Move the organisation to meet the future, he suggests, by turning on-going 'strategic conversations' to advantage, linking the organization's unique (often tacit) business idea

with scenario thinking, thereby building on the conventional principles of organisational learning that Senge has cautioned against. This means breaking out of the organization's 'thinking box' and taking a wider perspective. Remembering always to understand the unique drivers of the organization's success by articulating its central business idea. Thereafter develop scenarios as alternative ways of making sense of what is happening in the business environment. Van den Heijden affirms the enabling notion of gaining a new understanding of the organisation in its 'playing field' by using narrative and storylines to articulate the overall systemic framework and make it visible. This systemic organisational process, he avers, impacts the thinking about 'organisation' as whole and prepares it for effective action, thus supporting our notion of leadership as wholeness-making.

The trend is clearly evident that in this era innovation offers any organisation a competitive advantage. This might range from providing more sophisticated products, to improving the quality of customer or stakeholder experience. Whilst price-cutting as a competitive advantage has become the arena of those with the capacity for mass production and with access to low cost labour, this in any event is the environment where increasingly robotics and automation will perform the required routine tasks. Consequently, attention needs to rather be redirected to the quality of experience of the product or service by the user. That phenomenological shift to managing 'experience' therefore emphasises where leadership must become adept - where Greenleaf's servant leadership quality might apply - and essentially represents the 'poetics' of whole-making

To enable this to happen, first the enabling environment, as considered above in van der Heijden's process, needs to be established, and the participants need to be selected (self-selection is also a good way). Thereafter the three-stage creative method used by film producer, Walt Disney, as modelled by Dilts and Epstein (1991) can be applied.

- First, they suggest, create the 'dreaming' space. Select small teams to generate interesting ideas. Stress that this does not yet need to be realistic, practical, or critical - this is about brain-storming - free-wheeling. Gather all the interesting ideas. Remember that what might considered idiosyncratic in one context, could be just the right answer in another!

- Second, create the 'implementing' space. Get small teams to think about how to turn those interesting ideas into practical reality. What would be the value-add, what resources would be required, what would be the timeline, the cost, and who would be best to engage. The focus is still on how to implement - it is still not yet the time to nitpick and fault find.

- Third, now proceed to the critical space. At this stage invite those teams to look for the potential flaws and pitfalls. With a premature focus on the potential flaws and risks, it would be all too easy to give up on potentially valuable ideas. Identify the challenges and go back to the creative space, where you start the thinking all over again.

Ideally those three 'thinking' spaces will be physically separate. This helps create the right 'mood', especially since the brain naturally 'codes' experience to the spaces we create.


**The five drivers generating VUCA world**

As the abovementioned Oxford Futures Forum pointed out, we need to identify the drivers of change. We argue that a combination of five factors of the current industrial revolution generate the nature of our 'VUCA' world which is characterized by 'volatility', 'uncertainty' 'complexity' and 'ambiguity'. We will presently unpack these features.

Wilkinson (2007), Director of Scenario Planning and Futures Research at the James Martin Institute for Science and Civilisation, confirms that the era of clear dangers, simple problems, and predict and control approaches is past. She for example describes the prevailing context as being clouded by:

- competing interests,
- multiple worldviews, and
- turbulent change.

Scenario planning, she offers, is not so much about building a set of alternative futures, nor is it conducted from the need for methodological coherence. Rather it relates to the effectiveness of scenarios as potential purposeful interventions aimed at organisational sense-making, innovation and development. She continues that it is about looking over the horizon of the known and committing to a new course of action. She calls for the bringing together of knowledge and creativity to make decisions that have far-reaching impact, related not only to success, but even to survival. She envisages putting the forces shaping our world into play with the emerging possibilities and coming up with unique entrepreneurial insights. We call that wholeness-making.

**Transformative power of social media**

We suggest these five critical drivers contribute to the increasing pace of technological innovation in this fourth industrial revolution and thus render the organisational context even more complex:

1) The growing interconnectivity of people - enabled by digital technology - but compounded by multiple worldviews
2) IT data-processing capacity enabling pattern and trend identification - but with the capacity to generate self-perpetuating epistemic bubbles (digital echo-chamber)
3) Powerful automation and robotics - doing more of 'human' work - but holding prospects of increasing social alienation.
4) Biosynthetic coupling of technology to living systems, especially genetics - but with unprecedented manipulative capacities
5) The growing destructive human footprint on earth's natural systems

As leaders we must not only cope with, but meaningfully address these challenges in pursuing organisational goals and optimising change. But a further subtle reality to be recognised is this: that the trends enabled by social connectivity can also in turn influence leaders. They often follow rather than lead, in the conventional sense. A further valuable consideration is the recognition that media connectivity can be used to generate a more discerning consumer society, with the power to mobilize the marketplace in the face of unethical, or unsustainable practice. That especially relates to 'clean' products and practices.

Smith (1997) traces the increasing vitality of such notions as 'deep ecology', 'ecofeminism', 'animal rights', 'environmental holism', 'liberation eco-theology', 'rights - moral considerability' and the accompanying need for ethical method and the quest for sustainability. Concerning moral activism Spinosa, Flores and Dreyfus (1997) claim that human beings are at their best, not when they are engaged in abstract reflection, but when they are intensely involved in changing the taken-for-granted, everyday practices in some domain of their culture. This, they declare, is truly making history, and, they stress, it is about changes in the way we understand and deal with ourselves. They then identify three methods of history making:
- Reconfiguration - reorganizing conceptually the components and dynamics of the status quo
- Cross appropriation - transporting the elements of that present reality into new potential scenarios
- Articulation - creating a compelling narrative.

This contention is further developed by Donaldson, Verhane, and Cording (2002) who, for example, point to the disruptive impact of technological advancements on traditional notions of property; how this in turn impacts corporate strategy. (It is beyond the scope of this paper to address the potential empowerment of techno-smart people, as for example envisaged by Davidson et al above, to produce their own goods and services. Sufficient to anticipate that it will inevitably present a challenge not only to organisations doing business in the transactional economy, but even in the manufacturing sector. This emergent phenomenon is termed 'disintermediation', or simply put, cutting out the middle man. (De Lange's notion of 'fruitfulness' applies.) Consequently, Donaldson et al emphasise the increasingly important role of organisational values with the necessary accompanying ethical leadership and also emphasise the growing environmental concerns. It is clear that since we as leaders will be required to explore these challenges and opportunities and develop a perspective on how to lead ethically in such a dynamic world, poetic and ethics increasingly become synonymous. The values-based differentiation of the organisation relates to De Lange's notion of '*otherness*'.

**VUCA - Volatility**

Rzevski (2011), identifies the criteria of complexity that characterises complex adaptive systems, namely;
- 'Interdependency' - where diverse 'components' are engaged in rich interactions
- 'Autonomy' - where 'agents' are not centrally controlled, but are still subject to certain rules and norms
- 'Emergence' - where the overall behaviour of the systems emerges from the interactions of all the agents
- 'Far from equilibrium' - where disruptive events do not allow the system to return to equilibrium
- 'Non-linearity' - where, for example, an insignificant input, interacting with multiple other dynamics, can be amplified into extreme events
- 'Self-organisation' - where the system is able to reorganise after disruption - or in response to a perceived need
- 'Coevolution' - where a system irreversibly co-evolves with its context.

Rzevski stresses that the global market especially is such a complex system characterised by the uncertainty. The need for a practical approach to manage this complexity thus becomes imperative. Mitleton-Kelly (2011) stresses the need to identify the multidimensional problem space and with others emphasises the requirement of co-creating an enabling environment.

The V for 'Volatility', thus describes any system in such a highly energized state - Capra and Luisi above define such an entity as a dissipative structure. What it essentially means is that with the right trigger things can change very dramatically. In the human condition, especially where there are emotionally charged settings, a wrong word can trigger an explosive response. Society too has become highly energized because of its intense interconnectivity and the accompanying clash of multiple worldviews. But this factor now particularly applies in business economics, characterised by competing interests, where, for example, stock market Bull and Bear runs can turn into either hysteria or panic. It clearly contributed to the 2008 economic recession. However, it also explains the political volatility of the so-called Arab spring, and accounts for the recent unexpected changes of political leadership in the world.  Volatility is increased in this age by growing human digital interconnectivity, and the accompanying intense interconnectivity of the globalised economy.  This can result in rapid and dramatic changes in business fortunes. It requires the leader to develop a much smarter awareness with an accompanying capacity for agile response, which correlates to De Lange's notion of '*spareness*'. Agility also requires being able to detect change when there is still

something that can be done about it.

**VUCA - Uncertainty**

The rising volatility discussed here above has undoubtedly made the world more <u>uncertain</u> - this is the U of VUCA. The future is now more difficult to predict than ever.

In this vein Stacey (2012) also contests claims that management tools and techniques are based on evidence. Human activities of leading and managing, he stresses, are not amenable to scientific proof - consequently the long-term futures of any organisation remain unpredictable. He points out that 'expertise' goes beyond rules and procedures and invites reflection on the question of what the role of the leader might now become in an unpredictable world. He challenges us to consider on how complexity affects the way organisations are structured and function.

We can now better understand how this uncertainty might paralyze risk-averse leaders. But we also remain aware that it also encourages exploitative opportunism. It demands that leaders develop objectives that are informed by a long-term and worthwhile vision, one that brings positive value to society. Such a vision enables De Lange's notion of '*sureness'*. And such leadership will sensitively consider the impact on the greater ecology.

**VUCA - Complexity**

Olson and Eoyang (2001) independently take up Stacey's challenge by focusing on the science of complex adaptive systems applied to organisational change. Their observation on its management however is that rather than focusing on the macro strategic level of the organisational system, complexity theory suggests the most powerful change processes occur at the micro level where relationships, interactions, and simple rules shape emerging patterns. They assert:

> *"Like a jazz ensemble's performance mixes complex interactions between individual musicians, their instruments, and the audience, so too does creativity and efficiency emerge naturally within organisations."*

The five potent change factors of the digital revolution identified above generate this third VUCA feature - C, for <u>complexity</u> that the authors above refer to. As identified when there are many interacting participants, complex living systems become highly energized. Since we have shown a complex system to be one where there are certain participating factors that cannot be identified - these can be identified as 'externalities'. This then can result in the rapid change and uncertainty that we showed volatility could bring.

At this juncture it becomes important to distinguish the meaning of 'complexity' from that of 'complicated'. While a computer is complicated, an expert can still identity all the parts and interactions. The action of complicated systems is predictable, and fixing things when they go wrong just requires technical expertise. But with complexity it is different - we cannot identify all the interacting parts. Take economics; this is the context in which of necessity any business functions, and there are many factors, including human sentiment, that are involved. One example of complexity is the herd effect, already identified, that leads to stock market 'bull runs' as eager investors scramble to cash in on easy gains. This phenomenon cannot be predicted in advance. However, with an understanding of complexity, this phenomenon can still be anticipated. In complex systems, the so-called 'domino effect' is amplified.

Yes, we can design a complicated system, and when necessary upgrade that system - IT has become particularly good at that. But we can't design complex systems. They are self-organising - even whilst

artificial intelligence is trying to replicate that capacity. For the leader, it is important to remember that all living systems are constantly adapting to environmental change - and so too do human organisations. That is why in a complex world, we as leaders need to be fully engaged, with wide-open eyes, and hold a genuine interest in human dynamics. Then we will be better placed to positively influence trends as soon as they are detected.

A useful approach is offered by Olivier and Holscher (2017) who question the form of heroic leadership that needs to 'have all the answers'. What they suggest is rather the practice of working in an eco-system. And to do just that Brent and McKergow (2017) stress the importance of seeing the best in the world and our colleagues. Hind (2017) similarly calls for critical self-evaluation, knowing what we are good at, and what we are not good at. This contention supports the notion of Olivier and Holscher of eco-intelligence, and emphasises the capacity of working in an eco-system.


**Activating the Motivational Hot buttons**

Van den Heijden offers the idea of the strategic conversation revolving around a core idea. So too the way we experience the world is often organised around a core idea - a supreme value factor. This core idea could have acquired its intensity through some powerful experience, or repetition, and especially from reinforcement of the culture in which we grew up. We typically try to explain values with some generalised notions, like loyalty, or honesty, or courtesy, or caring, on the one hand, and maybe daring, opportunism, pleasure-seeking, on the other. Whilst some of these might be considered to be noble traits; good values to aspire towards, values are now seen to be far more complex. Our motivation, what we become excited about, are triggered by sets of criteria that define our responses to what is going on in the world. And those sets of criteria in turn determine what we give attention to in the world. The 'core idea' organizes the way we think about the world and how we respond to it in our own unique way, hence the gathering complexity of competing multiple worldviews.  Research shows that these core ideas progress in an evolutionary way as our capacity to become conscious of the world expands, both geographically, and in time.

Cowan and Todorovic (2005), show that for Clare Graves human psychological development was an infinite process. Somewhat contrary of Barrett's views on psychological maturation described here above, they claim that there is not any state of psychological maturity; the conception of psychological maturity, they assert, is a function of the conditions of existence. As humans continue to solve their problems of existence, they inevitably create new problems, and as a consequence proliferate into new and higher order forms of psychological being.

Beck and Cowan (1996) identify nine core ideas, fundamental life operating principles that inform such ascending orders of psychological being:
- Survival - following instinct
- Security - group consciousness for safety
- Pleasure and power - becoming self-conscious
- Discipline - desirous of order and certainty
- Opportunity - enjoying growth and development
- Humanity - dignity and compassion
- Understanding - making sense of the big picture
- Holistic perspective - the world as an integrative living organism - Gaia
- Spiritual connection - being in the unified creative field - synchronicity

We do not necessarily get motivated by a single organising idea - there can be combinations of ideas. But we as leaders will do well to learn to identify the most important 'value' hot-buttons and

begin to evaluate those of team members. Phenomenological empathy, as we will show, asks that we appreciate the worldview of those with whom we are interacting. There is no blame in holding that worldview it is a function of a thousand years of history, as Fernandez-Armesto (1996) puts it. This does not mean we have to agree, or even accept, but respect as part of deep subjective experience with which we are invited to engage.

Of course, the even greater challenge we might face is that of trying to facilitate societal value change. Laloux (2014) explores the possibility of creating organisations inspired by the next stage of human consciousness. He envisages creating truly soulful organisations (businesses, nonprofits etc.) characterised by 'authenticity', a sense of 'community', conducted with 'passion' and 'purpose'. He concludes: *"A new stage in consciousness can bring an extraordinary breakthrough in collaboration."* Ultimately, for Laloux, it is about inventing a radically more soulful and purposeful way to run our organisations. Accessing these motivational 'hot-buttons' can be related to De Lange's notion of 'liveness'.

**Enabling engagement**

We therefore suggest that five qualities of mindfulness collaborate powerfully to enhance engagement.
- 'Presence' - this suggests that our perceptual filters are open to the current reality. Being present allows us to engage. When our minds are elsewhere we cannot fully engage. This important topic of presence will be discussed further.
- 'Agility' - the capacity, as we saw above, to make subtle and early adjustments when we detect change. Making those adjustments, as when having a difficult conversation, is all about being engaged.
- 'Resilience' - this is the capacity to 'recover' when things go wrong - like getting back on the bicycle when we've come a cropper. Resilience then allows us to stay engaged - even when that is not easy.
- 'Creativity' - this means being spontaneous in the moment - engagement fosters such spontaneity.
- 'Commitment' - without which we would not be bothered in the first place. Commitment means we can see the value of what we are doing - we recognise the importance of engagement. Commitment is also informed by the core organising idea.

By regularly checking our priorities, evaluating what is important in our lives and in our businesses, we are better able to discern how to pay attention and put in effort to that which is worthwhile. And if this is true for the leader personally, it is also true of the team. As Hock suggested our own compelling vision and commitment will affect them to prioritize as well - that is a factor of human nature. Taking our teams into our confidence, and being consistent, engenders trust. Rewarding their participation with interest encourages participation. Trust and participation leads to engagement, and engagement leads to greater team productivity.

Zohar and Marshall (2004) present the case for employing rational, emotional and spiritual intelligence to transform ourselves and corporate culture. They present alternative scenarios for the future:
- The first is 'business as we know it', characterised by self-interest, short-term gain, isolationist thinking, with the bottom line as king. They argue that this is based on narrow assumptions about human nature and motivation. This typical business scenario is interested in shareholder value at expense of not only systemic, but inevitably our own long-term future.

- The second scenario is a business culture driven by a fundamental set of values, and a deep sense of purpose. Here wealth is indeed accumulated with a view to generate a 'decent' profit, while acting to raise the 'common good'. Now the emphasis is on stakeholder value, including the human race, present and future, and, of course, planet Earth itself.

We have suggested that the notion of embodied leader relates not only to bringing the fullness of themselves to the team, but indeed becoming the team. That, we have suggested, means too that the leader enables their deeper becoming, and with Taleb's 'antifragile' notion of getting stronger in engagement with the dynamic world it encompasses the spiritual aspect of leadership.

**VUCA - Ambiguity**

A, for ambiguity, is a feature that accompanies volatility and complexity, and it explains uncertainty. Since complex scenarios are naturally open to different interpretations, it is impossible to have an exact analysis of what's going on until things clarify. For example, there is a stage in an unborn baby's development where the gender can still not yet be determined by sonar scanning - so that situation is ambiguous. So too is the potential of any highly energized state such as potential global trade wars. You will only really know what's about to happen when it does. Britain's attempted exit from the European union is a specific example. Things are 'developing' in the process - they are coevolving. It especially applies where many people are involved - like in business, or in politics. That is also why many good business ideas fail, whilst others succeed. We cannot really know how the market will respond until we've launched. Ambiguity demands new competencies for effective leadership in the VUCA world. What it really needs is open-mindedness, the ability to generate multiple scenarios, and a keen focus on enhanced creativity. The poetics of leadership is about raising the awareness and agility to generate such 'fruitful' organisational creativity.

Boone & Snowden (2007) suggest that leaders must sense, analyze, and respond. In a complex context, right answers simply cannot be ferreted out; rather, instructive patterns can emerge if the leader conducts experiments that can 'safely fail'. This they declare, is the realm of "unknown unknowns," and that is where much of contemporary business operates. Leaders in this context need to probe first, then sense, and then respond. In a chaotic context, searching for right answers, they stress is pointless. The relationships between cause and effect are impossible to determine because they shift constantly, and no manageable patterns exist.

**Recruiting neuroscience to reboot corporate brain**

When re-examining leadership approaches from the perspective of neuroscience, we can now also employ insights from the emerging discipline of neurolinguistic programming (NLP). This shows how we create inner mental 'maps' to represent our worlds. Knight (1995) defines 'neuro' as the way we filter and process experience through our senses, 'linguistic', as the way we interpret experience through language, and 'programming' as the way we code language and behaviour into an own personal program. Critically she identifies 'metaphor' as key to the unconscious mind - and that, she suggests, is the door to creativity. We suggest the leader as 'sage' metaphorizes narrative to bring identity of the organisation, as tribe, together - a whole generating greater wholeness.

Since we navigate through such maps, like following an inner GPS, our perceptions are filtered through our dominant values and beliefs as indicated. And they are in turn conditioned by our past experience. We have all been 'programmed'. 'Ambiguity', we have seen, means that many situations are open to different interpretations. We are invited to regularly check whether our opinions provide the most effective representation of reality. Whilst thinking is deeply habituated, neuroscience shows that we can indeed change our minds. That is because of the brain's neuroplasticity that allows it to 'remap'. And that, of course, is also about 'heuristics'. In a changing

world it becomes even more important to update our mental software. As Senge suggests it helps free our perception of reality from interpretation based on our past experience, in order to be better informed by the dynamic present. The quality of open-mindedness that allows rich and meaningful communication (engagement) can assist in this remapping. It also helps to develop those qualities of agility, engagement, and creativity that are so necessary in this VUCA age.

**Phenomenological empathy**

Compelling and insightful communication engages with the deep subjective experience of the listener. Certain presuppositions from neuro-linguistic programming offer helpful communication insights, such as:

- *"The meaning of the communication is the result."* The meaning of the communication is not necessarily what our intention was, not in the content of our words, or the gestures we used, but what occurred as a result - how it was understood and interpreted. That is the phenomenological perspective. This is probably what Einstein (1995) was suggesting, namely, the dynamic 'substance' is the effect of the interaction on the whole system. That is the importance of the topic of 'subjectivity' we'll be examining going forward.
- *"We cannot not communicate."* In whatever way we respond to a communication, or a situation, whether violently, or in complete silence; that response will be interpreted, consciously or unconsciously. Simply put, since everyone looks up to the leader, what we say, how we respond, that makes an impact. Effective leadership is therefore about compelling communication - the poetics.

Seeley and Thornhill (2014) ask how organisations might better cultivate artful and creative ways to help re-imagine their role, their relationships, and themselves, for a sustainable future. They too emphasise the requirement of 'embodied experience' coupled to sharp decisive minds, having both the ability to pick apart the details, and glimpses of seeing whole systems. They stress the requirement of a sense of self as being fully dependent on natural planetary ecosystems and having the capacity to structure human organisations to meet vital needs fairly, simply and well. In cultivating artful ways, they suggest it is about

 *"...Knowing the world is essential if we are to imagine futures where we organise and structure our activities sustainably. Abstract rational thinking is not enough to get us out of the dangerous global mess we have made for ourselves."*

They too observe that it is the domination of linear ways of thinking that has led to such a precarious situation. This contention we suggest supports our view of phenomenological empathy supporting leadership in whole-making.

**'Common sense' versus Current Reality**

We are all then 'programed' by experience, mapping to the world in our own unique way. But we are also all human, learning from and adapting to each other. Human consciousness evolved collectively over time, with the wisdom of hindsight we can now identify three meta-stages.

- Preconventional thinking: This was typically informed by handed-down tradition, oral and written, and the oft accompanying dogma. Arcane wisdom though has often been refined in time through mythology, evolving culture and even the deeper unifying dimensions of religion. Virgil's Aeneid, for example, served as a founding myth for the Roman Empire. This epic narrative served to create an identity greater than the city of Rome. In the Judeo-Christian tradition for many this narrative has created an opportunity for a global identity.

- Conventional thinking: The so-called 'age of enlightenment' saw conventional thinking beginning to rely increasingly on proven science. This was considered to be a significant advance for consciousness. For Henry Ford therefore the appropriate metaphor was machine. In conventional thinking thus, the leader maintains the wholeness of the machine. The machine requires specific environment to function well, as such it represents a brittle kind of whole. But under pressure machines cannot adapt, they cannot bifurcate, they just disintegrate. This way of thinking, broadly characterised as modernism, still considers the material, or physical world to be the only 'real' one. Knowing 'reality' still requires that it be 'quantified' by scientific instruments. With this thinking striving to identify the 'hard' facts, based in material reality, it finds the immaterial world of thoughts, beliefs and feelings difficult to evaluate. Increasingly the maps of conventional thinking are being shown to be inadequate for dealing with the challenges of this VUCA world. Our best science has not solved our self-generated human problems; that is because the world is still about people and their subjective experience.

- Post-conventional thinking: Post-modernism questions the metanarratives of modernism. Whereas machines are dead, they are inanimate, organisations are animate. Consequently, leadership is less about protecting the organisation from the environment whilst extracting its potential value, post-conventional thinking focuses on that which will increase vitality - add increase in the life of the organisations as it evolved in wholeness to its greater potential. This relates both to de Lange's '*vitality'* and '*fruitfulness'.* With the shift of focus from the parts to the interacting relationships, with post-conventional thinking the subject-observer/object-observed dichotomy is bridged. 'Action' and 'experience' become identified as the keys factors of reality, thus reconsidering 'reality' from the phenomenological perspective. As simple example would be the recognition of the nightmare as a real experience for the dreamer. The gift embedded in this perception is the shift from access to and ownership of resources, to the creativity of relationality in whole-making.

**'Maps' and myth-perpetuation**

Notwithstanding the powerful nature of subjectivity, the way we encode that remains an essential for organisational success. Korzybski (1947) cautions us to reconsider the following 'presupposition'. *"The word is not the event it describes - the map is not the territory."*

This highlights two further important considerations with regard to phenomenological empathy as applied in leadership: When, for example, we 'label' (using a word) someone as, for example, being 'mad', we make a generalisation; we freeze our personal description of someone else's action (the event) in time. We undermine the reality of living process in our thinking. Things, people, do change. That's why we have the warning - 'the map is not the territory'. Premature labelling, harsh judgement, is a sign of prejudice. And that leads to 'being out of touch' - missing the quality of 'presence' that we previously identified.

When 'prejudiced' we employ 'maps' to guide our responses to the world which no longer work effectively and consequently we also harm ourselves. Our maps activate emotions; like joy, anger, fear, sorrow, or jealousy - and our negative emotions then disturb our coherence to the detriment of our physical, mental and emotional, and social wellbeing. That emotional state then drives our behaviour and directly impacts others, but it also subtly drives the quality of energy we radiate. That's why we feel depleted in the presence of some folks, and why we feel energized with others. The mindfulness that comes with self-reflection, and the reality check that accompanies deep and

honest conversation, can help us as leaders to update our software. Deep and generative conversation, in turn, requires such phenomenological empathy.

**Probing the Post-conventional Paradigm shift**

Kuhn (1962) challenges the prevailing view of progress in "normal science". Conventional scientific progress was viewed as "development-by-accumulation" of accepted facts and theories. Kuhn argued for an episodic model in which he identified that periods of 'conceptual continuity' in normal science were sometimes interrupted by periods of revolutionary science. The discovery of "anomalies" during such revolutions in science could lead to new paradigms. New paradigms then asked new questions of old data, moved beyond the mere "puzzle-solving" of the previous paradigm, changed the rules of the game and the "map" directing new research. Schumacher (1977) confirms that the scientific rationalism of the last three centuries, with its emphasis on provable and certain knowledge, has increasingly obscured from view various aspects of life that confront us in reality. There is thus some fundamental significance in Morin's view of the recursive function of wholes in all living systems that points to an emerging holistic science as representing such a paradigm shift.

From a leadership perspective conventional thinking tends to focus on the material, or physical world. So, in attempting to explain consciousness, for example, it will still consider microscopically observable brain cells, rather than our thoughts and feelings, to be the proper business of scientific examination. By contrast human aspirations, which cannot be measured, is still considered more philosophical - or at least preferably related to the soft sciences. The discipline of complexity and emergence however now shows human subjectivity to probably be the most dynamic factor to be dealt with in the VUCA world. Because conventional thinking has struggled to address that, we argue that human consciousness needs to accelerate in its progression to 'post-conventional thinking'. Since leading is about people, the art and science of VUCA leadership becomes increasingly important in this age. So, for example, the employment of algorithms to program artificial intelligence is one thing, understanding complex human dynamics to enable more subtle and effective leadership is another. A colleague put it graphically when he suggests leadership is shifting from mechanistic 'atom herders' to organismic 'guardians of the life of the tribe'.

**Engaging Emerging Economics**

We identified how Davidson and Rees-Mogg anticipated the coming economic revolution and the daunting challenges, and also opportunities, they anticipated it is likely to present. Certainly, many folks already experience the pain of change, whilst not understanding the nature of that change. Hawken et al (1999) affirm that the prevailing model for creating wealth, a model that has its roots in the industrial revolution and that dominated the last century, no longer applies.

Still, there is a cry from certain quarters against neo-liberal capitalist economics that is often accompanied by a hankering after the old socialist ideal. However, we suggest that both economic models are rooted in the self-same outdated materialistic paradigm. Nurnberger (1998) reminds that whilst Marxism-Leninism has collapsed, we must recall that socialism has been a response to the failures of capitalism in the first place. Capitalism, he asserts, has led to phenomenal growth in economic centres, but it remains unable to overcome poverty, economic marginalization, and reduce depletion and ecological deterioration on a global scale. However, he concedes, nothing can be gained from trying to reinvent the wheel, repeat old mistakes, and rehash obsolete arguments. We simply have to reconfigure our conception of economics. Consequently, it is helpful to consider the words of Aspden (1995) of Financial Times who comments that it is about;

*'Reformulating the relationship between democratic rights and economic progress in an age when the triumphalism of the technological advance masks an unconfident vision of the future.'*

Beinhocker (2006), for example, argues that world researchers are upending a hundred years of economic theory and recasting the economy as a 'teeming evolutionary stew', a complex adaptive system more akin to the brain, the internet, or an ecosystem than to the static picture presented by traditional theory. The challenge is daunting, especially for fear of the unforeseen consequences of regulating economics systems in different ways.

This is no doubt because, in contrast to the new approach to economic theory, conventional economics is rooted in mechanistic conventional thinking. In order to be self-validating, economic 'science' has correlated it logics to the comforting 'laws of physics'. An example of this is Newton's equilibrium theory as applied to wealth distribution. In his second law of thermodynamics, over time, energy is shown to dissipate evenly. So too, the argument goes, wealth and prosperity should eventually even out. Supported by complicated economic equations, it claims that with natural human self-interest, rational choice, and the equalizer of competition, we should be able to predict economic prospects and developments - and wealth when generated should spread out to the benefit of all. But wealth is not spreading out in an equitable way - evidence shows the steady erosion of the typically stable middle-income group. And the evidence is further that economic shocks have not been predictable - so-called economic cycles notwithstanding. New economic theory stresses that the economy is not a machine at work, it is about humans interacting in a VUCA world. In recognising economics as complex collective human behaviour, new economics then begins to re-examine that phenomenon through post-conventional thinking. In this digital age with its interconnected global economy, that perspective can inform a key leadership capacity. It demands awareness, agility, engagement, resilience, and creativity.

Ormerod (2012) presents two alternative economic motivational views in this interlinked and digitally based emerging economy. The first is 'nudge theory', suggesting that producers and consumers could now be influenced to good by being offered an incentive. The second is 'network theory', suggesting that people imitated those around them in order to fit in. This can be related to Barrett's description of the socialization being part of psychological development. Ormerod asserts that these two apparently opposing theories of economics can now be fruitfully brought together. He asserts that in our ever more dynamic and intertwined societies, network effects became more profound. Consequently, as with Davidson and Rees-Mogg quoted above, he suggests optimizing those positive linking aspects.

But an even more radical view is presented where economics is considered to be a 'sacred' process. Eisenstein (2011) traces the history of money and reveals how it has fostered competition and scarcity. Money, he suggests, has not only destroyed community, but has necessitated endless growth. He offers that it is time to transition to a more sustainable way of living and explores new economics, including such notions as negative interest currencies and the phenomenon of local currencies. He proposes resourced-based economics as 'gift economies' that include the restoration of the commons. We conclude that post-conventional thinking is most fit to lead that transition - and economics can now be seen as a potential engine of wholeness-making.

**Reality in a 'post-truth' world of virtual reality.**

A new and real test to leadership at all levels is the potential manipulation of information, and the public mind, in the digital age. We have emphasised the evolving nature of the globally interconnected information economy in the fourth industrial revolution. With its many technological advantages of artificial intelligence, robotics and nanotechnology, advancing digital technology nevertheless renders the public mind increasingly vulnerable.

We have shown how human consciousness evolved from the pre-conventional modes of thinking reliant on traditional knowledge systems, to the conventional modernist mode of the so-called scientific era, relying on the empirical 'evidence-based' method to 'know' reality.

It is also important for leadership to recognise that consciousness coevolves with technology and its accompanying economic applications. We have attempted to show how our global epistemology and ethos has shifted in that time frame dominated by the 'conventional thinking' from our once dominant pre-conventional 'religious narrative' to a predominantly 'scientific/industrial narrative'. The post-conventional thinking anticipated might be better informed by a living systems 'organismic/spiritual narrative'.

We have argued that the dominant reductionist and materialistic fixation of the empirical method might inhibit effective comprehension and adaptation to the natural complexity and emergence of living systems. Similarly, conventional thinking also struggles to comprehend the complexity and dynamism of the emerging world of virtual reality. The forces being unleashed and manipulated are best expressed, we have shown, by the VUCA acronym.

With digital technology, driven by self-learning and potentially manipulative algorithms, catapulting humanity into an uncertain future, human consciousness must evolve to post-conventional thinking. This becomes the core challenge of leadership. The discipline of complexity and emergence, we have shown, offers a helpful lens to understand the process and emergence of complex dynamical systems. It provides valuable insights into the technologies and strategies of manipulation of human perception.  Governments and mega-corporations are inevitably complicit in the power-game for domination of the public mind; potentially corrosive of freedom and democracy. Post-conventional thinking can empower civil society with critical counter resources and strategies. We can use electromagnetic fire to fight fire.

Since the trend of the fourth industrial revolution is from economic dominance of material objects towards novel experience, post-conventional thinking is characterised by holistic focus on what is revealed as real and true in diverse, sustainable ecologies. Since it focuses on retrieving genuine relationality as character building experience, that opportunity becomes the province of leadership poetics.

**Bringing it all together**

Dee Hock stressed that we simply need to get out of our own way, and Adriaan de Lange's model of seven essentialities of creativity can be correlated to the human endocrine system. This calls us to reassess who and what we are. The depth of human potential is thus further unveiled. We have emphasised the need to lead organisations towards genuine social and ecological value-adding goals with a conscious focus on movement and process. We have suggested creating a compelling narrative to offer an inspiring vision. We have urged enhanced focus in the building of trust and collaboration, through sensitive engagement and we have encouraged the accessing and mobilization of the deeper resources of the individual and the team.

Leading with phenomenological empathy requires speaking from the heart with a vision that resonates with the future success of humankind. A new poem of our shared identity seeks metaphors that will allow us to succeed as a species. The narrative wants to offer an opportunity for our initiation into a new identity, which experiences, intuits, preserves and increases wholeness. Ultimately it is about bringing the eternal into the temporal. For us, this is a poetics of leadership.


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Claudius managed the 'Gondwana Alive' initiative in the 2002 Johannesburg WSSD. He participated in a research project for UNEP with the LSE Complexity Research Group. Articles have been published in journals such as Greenbuild, Biophile, and the Holistic Science Journal, and his paper on complexity and organisational change management was published in the book, "Moving Forward with Complexity". He has presented papers on applied complexity theory in the UK, South Africa and Brazil.

Claudius lectured MA economics students Schumacher College on complexity sci-ence approaches where he also developed a short-course, 'Holism and Leadership - transforming organisational praxis'. He addressed conferences on economics and governance at Kingston University, London, and the University of Pretoria. He serves as external marker for Ashridge Business School in their post-graduate master's in management program. He is a member of Synthesis Complexity Research. *188 words*

**Joshua Paul Malkin**

Joshua facilitates the co-creation of shared value with communities, organisations and businesses. Having worked at the start of his career as an artist and arts educator, he was offered an opportunity to work in urban regeneration at the city level. He created a process of community visioning in planning cities that informed a major city-centre development which was presented at the International Liveable Cities Conference in 1992 and published in TCPA Journal of the same year.

He became convinced of the interconnection between health creation and wealth creation which has informed his work ever since. The idea that cities and neighbourhoods are health generating or diminishing structures led to work on wellbeing, civil ecology and the commons with the Civil Society Forum, Network of Wellbeing and the Commons Equity Society.

In 2015 Joshua presented a paper at Cumbria University's Leading Wellbeing Research Festival on *'Gender, Culture & The Politics of Wellbeing: Parenting as a Model for Leadership'*. His current research interests are focused on the role of faith groups in the transition from a paradigm of Liberal Democracy to Compassionate Democracy. He is currently co-convenor of the Civil Society Alliance and a trustee of the South Devon Steiner School. *199 words*