Organisational Development: Tier 2, Natural Design and Living Systems

What approach to organisations is needed from Spiral Dynamics practitioners as we enter more visibly into the conditions that Clare Graves predicted as Western society enters the Life Conditions for Tier 2? What should we be bringing to this work arising from perspectives and ways of thinking that have emerged in the last 20 years?

In the world beyond SD there have been progressive shifts in academic approach over the past decades, tussling with complexity and unpredictability. They have been pointing the way towards new approaches without quite finding the "simplicity that emerges the other side of complexity".

Spiral Dynamics was ahead of its time. It did not get entirely caught in the conventional view of scientific, academic and intellectual validity, based on a mythology of objective rigour. Benefiting from Gravesian insights and its understanding of the stage-related views that people within organisations would have of their world, SD was able to recognise that subjective perceptions would make a systemic difference to organisational function.

Even so, systems design in SD was unavoidably caught in aspects of the Orange worldview which conditioned the prevailing culture. It could not quite escape the tendency to see organisations as mechanisms, people as components. Organisations are objectified and engaged with largely from the outside. This has held us back from engaging with them as the living systems that they are, possessing inbuilt ecological intelligence and self-developing creative impulse. It has restricted our capacity to stimulate the organic development of their adaptive, collaborative intelligence and promote the strength of their being.

This essay shapes the new ways of thinking that we need to bring and offers a clear way forward. It adds to the powerful toolset that Spiral Dynamics already has, proposes framing questions and presents flexible, collaborative, multi-faceted ways of working that are configured to share the organisation's journey and help them meet today's challenges.

What does our work call for?

How can Spiral Dynamics practitioners, consultants and facilitators of societal change work best to bring into being the organisations of the future? What is called for by the times we are in and the conditions that we and our organisations face? This paper begins with the view, which will be elaborated as we go, that the methods of the past are not sufficient and that more is required of us. I take as our springboard these questions:-

Are organisations living systems?

Should we view them and work with them as if they are?

Have we created difficulty by the ways we have viewed them as systems before now?

What might we do differently?

What is a system?

Michael D McMaster[i] defines a system as *"Any group of elements that form an identity and interact to perform specific desired results.*" Since he recognises that this is not applicable to living systems, which have no "desired result" he brings in the concept of Complex Adaptive Systems (CAS). This applies he says, "*..to living systems where all the elements combine as above. They may be plants, animals or ecologies. They may be internal to bodies of individual living systems and, at the highest level, to all social systems of living beings."*

He then goes one stage further, and I am going to use his frame as a springboard for the exploration I propose to share with you here. His next step is to add the notion of intelligent systems, these being "*those where human beings are at least influential participants*." So these are social systems which "*coemerge with human beings."* Potentially they are "*intelligent beyond the sum of the individual intelligence of the participants in the system. It is an intelligence that is distributed among and arises from the interactions of many participants."*

There is a lot packed into these definitions, and many aspects of the terms used will be present in what follows. However, I want to begin by introducing some central questions that I see as essential for us to consider.

Who's looking, where are we looking from and what are we looking at?

The history of academic thought, of normal human inquiry, possibly of all topics like this, is that we place ourselves outside of the system. It is common for humans to speak of "the natural world" as if it is something that we are not part of. It is in the nature of the scientific process to seek "objectivity" – to set a goal that the conclusions we will reach will stand independent of those who reach them – that they will have some kind of absolute and incontestable Truth. The "system" cannot include the analyst.

That might not be so bad, except that if we are looking at systems containing humans, there is another Truth. Individual humans make choices, and choices are subjective. However great your faith in the potential to aggregate to averages, to believe in sampling, human choices are not easily predicted. A brief review of the polling systems as applied in recent UK electoral processes would provide sufficient cause for doubt.

When we seek to look at, analyse and understand an iCAS (intelligent complex adaptive system) we place ourselves outside of the system, but more than that, we externalise our view of the system's intelligence. We start down the road of identifying the components (people, processes, things) and defining the interactions that we perceive to be taking place.

We take the living entity and we dissect it.

In so doing we enter a Heisenbergian world. What we are attempting to define is ceaselessly moving, at variable and indeterminate speeds. Even if we could see everything, we can only see everything now. Within moments our observations will be out of date.

We are also required to engage with the degree of the complexity. Just how many variables are there? As many as people in the system? How many types of interaction are there?

How many of the variables are known and visible? How many are in any real sense quantifiable?

This leads to the biggest question of all.

Where is the intelligence?

According to Humberto Maturana[ii], *"The relations that define a system as a unity, and determine the dynamics of interaction and transformations which it may undergo as such a unity constitute the organization of the machine."* And later, together with Francesco Varela[iii], *A diverse community is a resilient community, capable of adapting to changing situations. …… In such a community information and ideas flow freely through the entire network, and the diversity of interpretations and learning styles-even the diversity of mistakes-will enrich the entire community.*

In the two quotes above, I call attention to particular words such as relations, information, flow, community and learning. None of these words are in individual people in the system. None of them are in the things that are part of the system.

What, in fact, do we mean by intelligence? We have, of course, a general sense of what this is. The Oxford English Dictionary gives the following definitions "Intellect, understanding" and "quickness of understanding, sagacity". The Cambridge English Dictionary is more active and operational, viz. "the ability to learn, understand, and make judgments or have opinions that are based on reason." And both also refer to the other definition – "information, news". These point to the complication that we face when we are looking to understand the intelligence of systems. It is

- in **those who are seeing** and understanding the system and it is also
- in **the information** that they are seeing and attempting to understand
- it is still further, **in the process of interpretation** and understanding
- and then **in the judgement**, which is perhaps the most important, because
- judgement sooner or later leads to **choices of action** (including communication)
- and these choices then affect **the rest of the system**.

There is enough in this analysis alone to justify the point of view that in a system, intelligence is everywhere, and nowhere in particular. In effect, they are as Maturana describes above, in the relations that determine the dynamics of interactions and transformation.

What can we do with the intelligence?

If the intelligence of a collective enterprise (business, society) cannot be separated from the people who are in the organisation, and if that intelligence lies in them, between them and in the collective field of awareness that they use to construct their reality, how can that intelligence be extracted from the whole in order to manage it? I am convinced, and am hoping that you are now seeing that it cannot be. The organisation cannot be managed. Its intelligence cannot be externalised and lodged in a model or a systems flow diagram. We may have been inclined to see this as a problem of complexity – to believe that we don't have the tools to capture what is there, or to analyse the multiplicity of interactions. That may lead us down the path of seeking more data, with faster and more powerful number-crunching devices to crunch that date into intelligible patterns.

No doubt big data will reveal something, and some of it may even be useful. It might help us be more aware of what is happening and to monitor more of the world's patterns. It can feed our collective awareness, just as radio telescopes and satellite probes may do. But just as my physical navigation of the world may benefit from better eyesight and hearing – even from telescopes and GPS systems – this is not intelligence, any more than monitoring your heart rate will tell you what it is like to be ecstatically in love, or beside yourself with grief. Which is more likely to reveal my next action? Which is more likely to form part of an organisation's self-knowledge? Complexity is not the biggest problem. The inherently unknowable is.

Unknowable, that is, from the outside. People make choices, and choices are complex and multi-layered. Their contents are:-

- informed by worldviews (stages of development) and
- swayed by personality type
- sensitive to context
- influenced by their emotional state, which may even be merely a reaction to the last interaction they had
- determined by the stand they take within the system.

People's choices take other people into account with all of the variability just mentioned, along with all of the potential errors involved in assessing another person's views and emotional states. You might see this as reason to doubt that decision-making in organisations will ever be effective or intelligent.

Fortunately, people learn. One of the limitations to systems diagrams and causal flow loops is that they are out of date as soon as written down. People learn, and they adjust their decision-making according to new information in their sphere of operation, fresh perceptions of others, and perhaps, hopefully, even in the light of fresh insight, improved pattern recognition, education and new information sources.

Organisations then learn both through the increased awareness in those individuals and through the enrichment of the field of information itself, that which becomes part of the collective knowing, available to sub-groups and whole. Some of the information and some aspects of recognised and repeated patterns may then also be externalised and concretised – embedded into policies and procedures, placed into training manuals, built into updates to corporate software, supplier specifications and customer communications. The intelligence is everywhere.

How then do you organise an enterprise, or a society, even a world in such a way as to maximise its intelligence? The answer is that you don't, and that you can't and that you shouldn't try to do so. Processes can be optimised and procedures can be streamlined. If it is mechanical, repeatable, not too often subject to change, and has little "living" content, the odds of success are good. Otherwise - and most of our world is otherwise – we are prone to failure.

Ecology and self-organisation

Think about your body, with its (at least) 40 trillion human cells and its shared ecology of yet further trillions of non-human cells – "commensal" bacteria living on your skin, pro-biotics supporting digestion in your gut and many more that no-one knows what benefits they confer. Think about the

organs – your heart, lungs and liver. Consider the cells in your blood and the proportionally small numbers of cells in your brain?

This is a larger collective than any organisation, or even planetary humanity. It is able to stay alive with no help from you whatsoever. You don't need a control system. Even your brain is not needed, until you have to take action. The life of your body is entirely self-organising. How it does this is a big story – much too big to tell here – but the essence of it is that there are very many ways in which each cell detects the conditions that affect it, and also very many ways in which the information from each cell is shared with others, and in which they respond[iv].

All living systems have this characteristic. There is a fine book by Thomas Wohlleben[v] that gives the detailed picture of how this works in a forest. Its message for us here is that it does not matter what kind of living system we are talking about. They all operate based on contexts, interactions, relationships, accommodations, flows of material and information. Their component parts are all sensing the conditions that are relevant to them and responding accordingly. In the forest, interdependence is built in, because it has served the life process for that collaboration to develop. The largest components rely on the activities of the smallest. Beech trees share resources with each other, and they do so through a network of microflora, in soil conditions dependent on microfauna. Human bodies and forest ecosystems have developed these flows and collaborations through millennia of evolution. The intelligence is in every part, and in their interactions. It is in their sensing mechanisms and in the responses which the evolved processes deliver through the meshing of their network.

How does this apply to human collectives?

In contrast to our mammalian body and a forest ecosystem, our society and our organisations have arisen in an evolutionary eye-blink. Organisational intelligence is not embedded in a million tried and tested chemical interactions. Your body's cells all share the same genes – even if those cells develop in differentiated ways as skin, brain or heart. The trees, insects and forest fungi are likewise genetically stable.

Human organisations are not at all like this. Their components can change overnight, replacing one CFO or one customer service person with another, potentially quite different, individual. Even the same individual may not be stable day to day; a painful back, a divorce, a death in the family brings a shift. A cup win or loss by a local football team may affect a whole team, or a whole company.

Even between the human body and a forest ecology, timescales are different. A beech tree may take centuries to reach "adult" status. Responses in the system are seasonal and climatic. If one tree falls, making light available to another, the forest floor may sense-and-respond in weeks, and a neighbouring tree over years. The timescale for an organisation is often much shorter.

It can be shorter because much of the intelligence is not embedded in unchangeable processes, not in the genes; the potential to change may be almost immediate. An employee can be fired in minutes, a stock collapse happen in hours, a product recall be implemented in days. There are sense-and-respond choices being made all the time at all levels.

Why have we not looked at organisations this way?

Our way of approaching questions is framed by a scientific rationalistic mind-set. Even if you do not not think of yourself as a scientist or are hesitant to engage with what appears to be a scientific conversation, please bear with me. Gravesian socio-psychology is a science. Even in Spiral Dynamics, we may see the components first or put people into "colours", ahead of seeing "life" itself

– the ultimate in dynamic processes. It is a significant part of our shift into 2nd tier ways of working that we change that habit.

Science's way of attempting to understand the world is generally to divide it into its component things – particles, chemicals, cells, and organs, and to look at the processes in relation to their effects on these object's parts. In medicine the view of interiors has improved in recent decades with machines like MRI scanners, which help see what is happening without the subject being dead, but even this is still very limited. Life remains a "black box" problem – you see what goes in and what comes out, but you have minimal information about what is happening in the dark, inside the box.

As we raise our sights from biology towards individual psychology, to organisations and to society as a whole, we face a challenge. When we look at a rat or a human, even under MRI, we are external to the system we are observing. Science cannot see life from the perspective of the cell and it does not try to. Einstein's breakthrough perception in relativity came when he asked how the world looked from the perspective of a particle of light. Seeing what has not previously been seen, calls for a different way of looking. Those familiar with Goethe's way of observing the world will also recognise this transformative shift.

Until now, our way of looking has been framed and trained by a scientific perspective which demands that we are objective and that we look at people, organisations or societies from the outside. That perspective forbids us to look from the subjective point of view of the individuals within the system or from the collective experience they have of the system. What if that is the very thing that is limiting progress?

Socio-psychological evolution

As I see it, the view from Graves and SD is to socio-psychology what Darwin was to biology. It describes how human thinking systems develop. It sees changes in those systems as shifts in priority codes which enable us to adapt to changes in the demands we face from our life conditions. Its scientific validity relies on its aggregation of the patterns in the data that Graves elicited. It achieves a high degree of objective validity because it rises above the individuals and their experience, based on different ways of thinking, adaptation to the niches in the surrounding ecology (life conditions) and on an understanding of what causes change in that system – the living dynamics themselves. The objectivity relies on the accumulation of a large quantity of subjectively acquired data, analysed by independent assessors to reveal its patterns.

We know that these patterns correspond very accurately to human development from several different perspectives. They reflect the trajectory of societal development over the whole of human existence. They match what we see in the development of organisations. They can be seen in the psychological growth of individual humans. They describe so much of what we see in politics, culture, conflict, change dynamics and organisational behaviour. A great theory is one that tells us analytically what we are seeing, describes the reasons why we are seeing what we see and predicts what we may expect to see next. All of this is true of the Graves model.

In predicting what would happen next, Graves said that we would be called upon to make a major shift in our ways of thinking. Put succinctly, the conditions that he foresaw 40 years ago[vi] were the

challenging, VUCA[vii] world that we are now living in. They create what Alan Watkins[viii] describes as "Wicked Problems", which are characterised typically by most or all of these six features:-

1. The problem is multi-dimensional
2. It involves multiple stakeholders
3. There are multiple causes
4. Multiple symptoms are exhibited
5. Multiple potential solutions are involved
6. The problem is constantly evolving

The changes in approach that this paper presents are the ones that Clare Graves said we would need. They are oriented towards living systems, the essence of No. 6 on the list and they include ways of working with all of the other 5.

The next stage in our adaptation

The familiar territory of Spiral Dynamics is that this new stage of adaptation is the seventh to arise, in a continuum that began with the earliest hunter-gatherer humans, and then changed as settled agriculture, villages, towns and cities became normal. Alongside this, systems like writing, laws, technology and complex societies developed to the point where our conditions of existence are now global in scale and complex in nature, demonstrating high speed and high interactivity.

The very positive side of these life conditions is that humans have solved the most basic problems of existence. There is no fundamental reason why we should live in fear, or lack. The challenge we face is that we have not yet stabilised this capability, not yet extended it to cover all of humanity and not yet eliminated all of the historical problems of political, religious and economic conflict. Nor have we solved the problems in a sustainable way, as is familiar from any news feed.

The capacities that are now demanded of us, and that are beginning to be activated in our brains, are described in the theory as systemic and as a higher level of cognition. They show up in practice and behaviour as new flexibility, the ability to drop conclusions and revisit situations as data comes in. There is a new capacity to create flow, involving looser structures, adaptable and agile processes and shifting relationships.

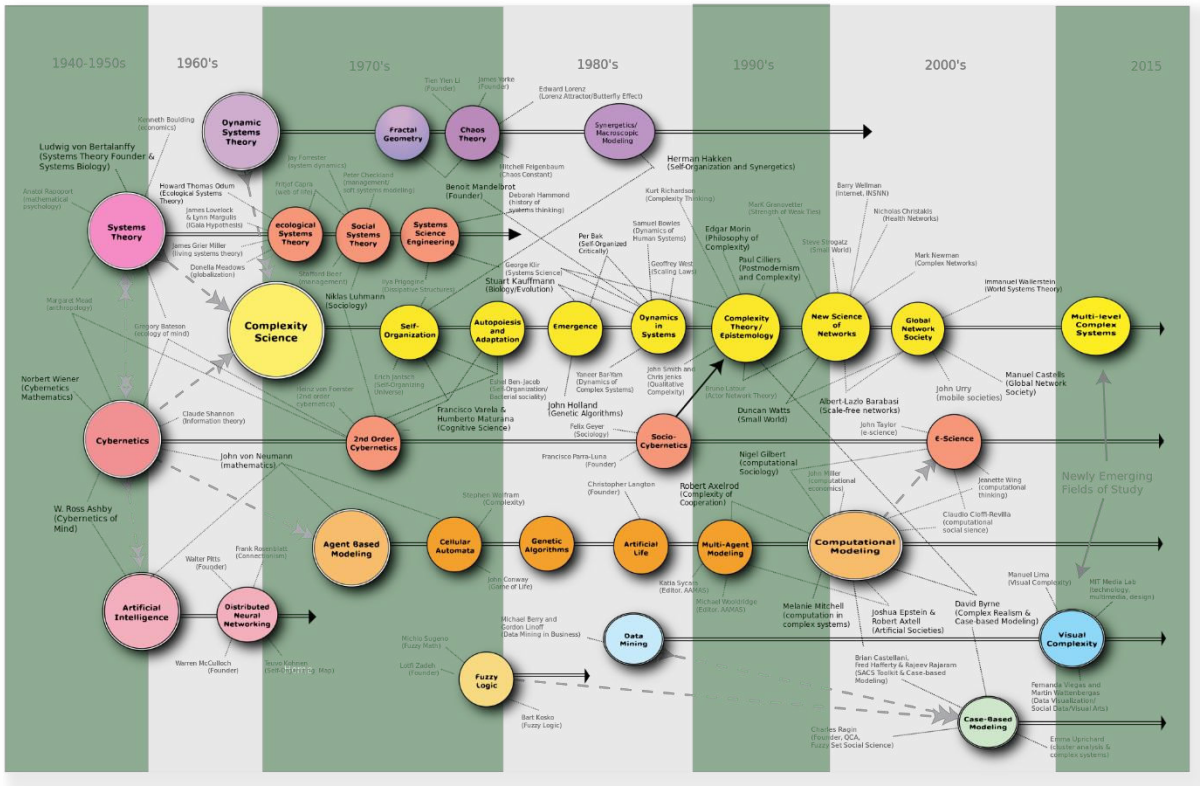
The focus of this paper is organisational development and an inquiry into how this needs to be facilitated and supported in the future. How do we support the emergence of the new capacities just described? One formulation of this shift has been the very simplified presentation of Graves' theory that Frederic Laloux presented in his book "Reinventing Organisations"[ix] and which has become popular under the label "Teal Organisations", based on an alternative colour scheme but using same core developmental timeline. Laloux's strapline speaks of "Organisations inspired by the next stage in human consciousness." However, the challenge with Laloux's presentation is that it majors brilliantly on inspiration but leaves a lot more for us to learn regarding how to bring it about, because he doesn't know or understand Spiral Dynamics at depth. That too motivates this paper.

The trajectory of academic thinking

The challenge of organisational management and development is hardly new, nor is there a shortage of approaches, quite the reverse. It has never been a simple problem, having as it does, to deal with

the potential complexity of both people and processes and with the need in the last century to meet the demands of huge, global organisations.

In keeping with the spirit of these times, with its background in the scientific approach and arising during a stage in development that likes to define its world in terms of reliable, repeatable systems, a great deal of theory has developed beginning with principles like cybernetics (information flow and feedback loops) brought out by Norbert Wiener, Gregory Bateson, Margaret Mead, John von Neumann and others. The technical side of such developments attempts to provide models of the organisational systems, sometimes mathematical, enabling us to see how the mechanisms of leadership and control work. Individuals, in these constructs, may well be seen as all the same, or as fitting categories of similarity. They may be assumed to be rational, problem-solving beings. Many of these approaches thrive on repetitiveness and certainty. The diagram below illustrates how many attempts there have been.



Map of Complexity Science by Brian Castellani.[x]

The development of the field is also informed by psychological theory.

In general terms, Berger and Luckmann[xi] talked of "The Social Construction of Reality" as long as fifty years ago. In that same time-frame. George A. Kelly[xii] was describing the specific polarities that are used for those social constructions. Two decades later, Humberto Maturana and Francesco Varela[xiii] explored the deeper question of where these thought-forms and constructs reside. They write of cognition as a "*bringing forth of the world through the process of living itself*." They provide thorough evidence and analysis that human reality is not "out there" and neither is it merely an internal construct that individuals develop. Rather, it is a world in which, if we understand what they are saying, we will be "*impelled to look at everything (we do) – smelling, seeing, building, preferring, rejecting, conversing – as a world brought forth in co-existence with other people*."

The more social aspect of such investigations is more inclined to recognise differences, to examine the boundaries to rationality. Questions are examined in relation to authority and autonomy, power and dependence. Individuals may be viewed in terms of their ability to make meaning of their organisational world and to behave according to their interpretations of it. The organisation may then be looked at as a place where meanings are negotiated to create joint enterprise and shared repertoires of behaviour. Further questions are raised regarding how much the individual is primary and prior in meaning-making. How much or how little is a joint activity? How much is contributed by homogeneity, and what is the value of deviation? Does structure determine strategy, or should strategy determine structure?

A further strand which may be familiar to many is the question of learning. How do organisations change through their own interior learning activities? Can they be assisted to learn, or is the best learning that which happens through the experience itself? There are many, many theories and most of them have merit. The debates are profound, often academic. The question that we have to face is whether any of them succeed in dealing with the complexity and dynamic nature of organisations. Did they succeed in earlier conditions, and what additional challenges are presented by the conditions that organisations are encountering now?

A comprehensive summary of these many approaches (as illustrated by the map above) is provide by Ralph D. Stacey[xiv]. He summarises the challenges that they leave us with in terms of their basic assumptions as follows (abbreviated and paraphrased):-

- There is some position external to the system from which powerful, rational individuals can, in principle, objectively observe the system and formulate hypotheses about it, on the basis of which they can design the system so as to produce that which is desirable to them and, hopefully, to the wider community
- This first assumption amounts to one that rationalist causality is applicable to human action
- It also entails a further assumption about system predictability. Success is equated with stability
- Stability of system operation requires a reasonable degree of consensus between the individuals who are or who operate the systems, with agreement on purpose and task and with strongly shared culture and values, acting, or inspired or led to act in the best interests of the "whole"
- Causality is a mix of rationalist causality on the part of designing individuals and formative causality ascribed to the system they design (i.e. a mix of interior and exterior causation)
- The primary task of leading and managing is to be in control of the direction of the organisation, whether in a "command and control" way or in some other more participative and co-empowered way.

In summary, Stacey observes ideological dominance. *"At the centre of this ideology is the belief in the possibility of, and the necessity for, control." This ideology has a long history in the West. It justifies the use of the natural sciences to control the resources of nature and the central concern with efficiency in organisations even if the people experience this as oppression."*

So what is the alternative?

The recent trajectory: the complexity sciences

There is an obvious convergence between the Graves / SD perspective, the VUCA narrative and complexity sciences. All of them express in differing ways, the perspective that linear predictability is no longer possible and that even complex modelling is becoming too difficult. Nassim Nicholas Taleb, a finance professor, writer and former Wall Street trader has brought the term “Black Swan” into wide awareness, to describe an event or occurrence that deviates beyond what is normally expected of a situation and is extremely difficult to predict. He regards almost all major scientific discoveries, historical events, and artistic accomplishments as "black swans"—undirected and unpredicted.

In science, chaos theory offers one approach to complexity. It extends systems dynamics beyond the modelling of what is stable and predictable into the mathematical territory where changes in parameters are seen to cause explosively unstable behaviour[xv] [xvi]. Note that these changes in parameters are internal to the system, not triggered by changes in the system’s environment. Thus both predictability and unpredictability are features of the same system, under different internal conditions. This introduces a paradoxical element through time, in which stability and instability cannot be separated; uncertainty becomes a basic feature of nature. Ilya Prigogine in particular, has described in detail how self-organisation can arise in these conditions and suggests that nature is about the creation of unpredictable novelty, where the possible is richer than the real. The universe is under perpetual construction.

At the opening of this paper we introduced the concept of (intelligent) Complex Adaptive Systems and their applicability to living systems – specifically to organisations and social systems. A CAS consists of a large number, a population, of entities called agents, each of which behaves according to some set of rules which require each individual agent to adjust its behaviour to the action of others. Flocks of birds are often cited as examples and most of us are familiar with the murmurations of massive numbers of starlings.

In such a system the rules – the structure of the system – can evolve order out of chaos. The underlying disorder allows the creative, adaptive freedom in which such order can emerge. It can self-evolve. The design principles of the system enable the iterative nonlinear interactions of the agents to produce, through the system’s experience of itself, spontaneous self-organisation. The basic rules that guide the network of agents are supplied by the principles in the design. Absent from the design are the emergent outcomes that the interactions produce. As Ralph Stacey puts it “*There is inherent order in complex adaptive systems which evolves as the experience of the system, but no-one can know what the evolutionary experience will be until it occurs.*”[xvii]

Applying this approach to living systems places a new perspective on the way that new forms emerge. In contrast to the image that we are given by traditional Darwinism, where change is driven by a random mutation, there is an alternative view in which populations of organisms shift dynamically within the boundaries set by the interaction of their genetic constraints and the context within which they live[xviii]. New forms emerge and they are radically unpredictable; they are also

living and they are adaptive. Whatever may be true for biological evolution, this description seems highly applicable to social organisms.

The next stage: Living Systems and Organisational Intelligence

If the journey of this essay seems somewhat non-linear, it reflects the nature of the territory on which we are travelling. If it has looped in and out of the natural world, the scientific perspective, human psychology and the organisational context in without obvious narrative logic, I hope that the weaving of the threads will now come together as we approach a conclusion.

These four threads illustrate four core aspects of today's reality.

1) Organisations, being comprised of human beings, and operating in a changing world to which they must continuously respond and often adapt, are presented as living systems; accordingly we must work with them as living systems, not as mechanisms. Organisations are beings in their own right with their own collective intelligence.
2) For many decades, scientific thinking has taken hold of our view of reality, demanding that we be objective, insisting that we look at data and material fact, attempting to analyse organisational life from the outside and detach it from the subjective viewpoints of the human agents. This is neither intellectually valid nor practically useful.
3) The development of human psychology has itself been presented as an adaptive journey in which humans change their view of what priorities they must embrace in order to thrive as their conditions of existence themselves have changed. The increasing complexity of those conditions through time has been a key feature in calling forth the expansion of human cognitive and behavioural capacities. Today's complexity now requires a major shift, which begins with the future's influencers, leaders and designers.
4) The VUCA context in which organisations operate requires organisational intelligence of a new order. The replacement of command and control, hierarchical thinking by adaptive organisations calls for new approaches and ways of facilitating the organisational development journey.

From these observations the conclusion must be that it is no longer possible for us to facilitate organisational change from the outside. The design cannot be perfected by analysis; the structure cannot be reorganised or fixed by third-party experts. It is not possible for consultants to gain sufficient information about the system as a living entity, and such information as can be garnered is transient.

This does not mean that analysis ceases to be of use. Simulations and models will continue to yield information. The difference going forward must be that such information is an addition to the data at the organisation's disposal and is complementary to the interior and subjective experience that the entity has for and of itself. You or I may benefit from knowing more about our heart rate and blood sugar, and use that awareness to adjust our exercise or dietary choices. There is much information that the organisation might look to make visible and to use as monitors of its vital signs;

nevertheless, changes in response are subject to interpretation through the self-knowledge and interior interactions that are the organisation's daily life.

An earlier description of the human body illustrated the way in which each cell has its own functional awareness, the information that it receives about the whole. In that biological realm, each type of cell has evolved the specific chemical sensors that it requires in order to carry out its required functions. Muscle cells know about blood sugar and oxygen levels. Liver cells know about fats, proteins and toxins. When we think of our bodies we are more likely to be aware of our external senses like sight and smell. When we look at organisations we will need to be mindful of the fact that each individual human "cell" in the collective is aware of others in ways which vary from general to specific and from role-oriented to person-oriented. There are multiple forms of information flow in both formal / systemised processes and in informal / ad-hoc interactions.

For example, each customer service person has their own particular experience of, and information about, what customers are thinking. In a similar way, all external interfaces are sources of information regarding the organisation's life conditions. Not all of such information can be aggregated, but all of it feeds into the sum intelligence of the collective. A change in the external conditions may be detected through these "cellular" senses in advance of concrete data collection and analysis by formal monitoring. Indeed, when conditions are new, the formal monitoring may not have been set up to detect them, just as our skin might show the presence of UV light that our eyes are not built to see.

What will be required of those who lead and support?

The future role that is called for from facilitators and leaders alike will reside in these ongoing questions and others like them.

- What can I / we do to increase the capacity of this organisation and its people to be more aware of the information that they need to know for themselves?
- What will help them be more capable of contributing from their own intelligence to the collaborative intelligence of the whole?
- What can I /we do to increase the visibility and transparency of the system so that all can know what they need or want to know and not be overwhelmed by what they don't need or want to know?
- What can I / we do to take out of the system anything that inhibits intelligence, continuous creativity and ongoing learning from developing?
- What can I / we do to minimise control and maximise responsiveness, minimise fragmentation and maximise wholeness?
- What can I / we do to support and encourage us all to break away from the belief in "right answers" and to live in the reality that today is not yesterday, and that adaptation to turbulence means that we need to live continuously and with agility in the questions – What's next, What now, What's possible?

- What can I / we do to ensure that our interventions, management activities and higher-level decision-making do not interfere or block, but are a contribution to the collective intelligence?

Above I quoted Ralph Stacey's observations in respect of the previous ideological belief in the virtue and necessity of control. We don't need another ideology in its place. Instead we must find a deep respect for life itself; for its dynamics, its never-ending creativity, its agility and responsiveness and its ability to find its own way to coherence. Life Rocks!

Theoreticians and practitioners alike will almost certainly need to develop a new vocabulary. Words like "organisation" and "system" carry with them the mechanistic overtones of the past. They do not breathe. My body might be looked at by someone else as a medical object or as a component in their organisation. To me it is an experience that I am living. Whoever I am, resides more in who I know myself to be than in what anyone else can name. Whatever my personal consciousness is, it is more than my body. Similarly, our social and societal organisms, our enterprises, our joint endeavours, are more than their components and more than names we refer to them by.

Earlier I quoted Humberto Maturana's view of relations - how they determine the dynamics and drive the unity of the organisation. A language rooted in the (inter)subjective experience of living systems will draw forth different responses than those that derive from objectifications. What we label as organisations are collectives, unities which live at least as much in their relations as in their components and which are characterised as much by their interactions, their learnings and their ongoing transformations as they are by anything more concrete and static. While its name has not changed, the IBM of today is not the IBM of 1970. We will need to find descriptions that are more supportive of the living conception of our enterprises, including the intention to see them and their adaptations as they themselves see them.

It ain't what you do, it's the way that you do it

The conditions now being faced by humanity as a whole and by our organisations and societal groups are (echoing Schopenhauer) not problems to be solved but life to be experienced. In our context, experiencing extends into sensing, communicating, learning and adapting. All of these take place in individuals and between individuals. We cannot locate leadership in the old way. As Nora Bateson[xix] has said "*When we look to nature for models, we find that there is not an ecology that would accommodate the existing model of leadership."*

Many writers have been leading in this direction. For Peter Checkland[xx] and the Soft Systems Methodology, an organisation is not an entity but part of the sense-making of a group of people engaged in dialogue. Gerald Midgley[xxi] argues that systems thinkers seek to be as comprehensive as possible in their analyses but, because everything is connected to everything else, it is impossible to be totally comprehensive. Mike Jackson[xxii] says that systems thinking is a holistic way of thinking that respects profound interconnectedness and pays attention to emergent properties. He calls for systems thinking to put people, with their different beliefs, purposes, evaluations and conflicts, at the centre of its concerns.

Russell Ackoff[xxiii] holds that obstructions to change lie in the minds of the members of an organisation, that is, in their mental models. He argues that it is not possible to surface these mental models and change them. Instead, members of an organisation should participate in formulating an idealised design of the future they desire and create ways of achieving it. It is not just the role of leaders.

Referred to above, Berger and Luckmann, George Kelly and later, Maturana and Varela all laid the groundwork for the view that we create reality together. In Berger and Luckmann's words *"We'd better learn that from now on we're making it up as we go along."* For Maturana and Varela,, the distinctive feature of living system is the way that they create themselves – which they term "Autopoesis". Autopoietic systems are organisationally closed. This means that the systems organisation, or identity, is not determined by anything outside of it…its identity is determined by its own operations.

There have been so many pointers to what is required but it seems we haven't quite seen where they have been pointing. Either that or we haven't been fully able to get outside of the conventional box, to walk through the looking-glass. Nevertheless, the conclusion is inescapable. The only way to address a living system is via the system itself. Only by this can we embrace its non-linearity. We can only facilitate it to the extent that it wishes to be facilitated; we can only support it by assisting it to see more of itself with greater clarity. Systems thinking, in and of itself, is not intelligence and some organisational interventions have taken as ill-informed and potentially arrogant a stance towards that intelligence as Electro-Convulsive Therapy did towards mental health problems. Shaking the system up might produce an improvement, but only by accident and at considerable risk. Surgical approaches may sometimes have saved the lives of the terminally sick. It takes more than that to bring about long-term, sustainable health.

Delivering the new

Organisations can only be optimised sustainably from the inside, through the development of their living intelligence. There are many tools and techniques already in existence which support such an approach, and many of the older tools will also do so, if applied in a different way. The systems approaches still have value. But to them we would add approaches like Map of Meaning[xxiv], Systemic Constellations[xxv], and embodied / somatic work. We would use tools that support self-organisation and flexible hierarchies such as holacracy and sociocracy.

We would make better use of the developmental frameworks, and certainly of the rich toolset that comes out of Graves / Spiral Dynamics theory, which is also highly effective as a framework through which to discern which other techniques to apply. The "X, Y and Z" templates are still valuable. We would make full use of its understanding of Change Dynamics. The approach here takes to its logical conclusion the necessities that Beck and Cowan describe[xxvi], to think in open systems and to work with natural flows and rhythms. We might even incorporate the three breakthroughs of Laloux's "teal" organisations model.

We would certainly have the intention to look at both the interior (ways of thinking, values systems, meaning creation and purposes) and the exterior (structures, processes, habits, practices and regulators). The consultancy industry has worked for well over a decade with leaders and with the idea of leadership development, opening up new ways of thinking, increasing bandwidth, complexity and emotional / social intelligence. Meanwhile we have overlooked so much of what was created from earlier, less advanced ways of thinking, much of which is embedded in the fabric of our operating systems. These are now a significant part of the constraints that inhibit change and progress and they block the expression of the leader's new intentions. Often they are like water to the fish – we now do not see them and if we do, we treat them as givens. We cannot develop the intelligence of the organisation without helping these to become more visible, and more subject to question.

The language used in Chapter 7 of Spiral Dynamics methodology presents a powerful precursor. It has a sense of dynamic and its view of "natural" systems was very close to what is needed. The methods hold much that still applies in the need for alignment (streams), for natural flows and for integration. The shift being proposed here is around how those things happen. The questions that are asked become less the ones for practitioners to apply, and more the ones that the organisation itself must engage with in the development of its own intelligence.

Working from the inside will not involve a pre-defined program - no 5, 7 or 12 steps. Nora Bateson[xxvii], says the following:-

"How can we use knowledge of complexity in a practical way? I am often asked this question. I am confused by it. Practical at what level? Does 'practical' mean:

…. to offer quick but unsystemic solutions?

…. Or to offer better understanding of the complexity of the context?"

As she goes on to observe, the price of ready-made "*pret-a-porter improvement programs*" and short-cuts is "*consequences and their echoes*."

The ready-made, cookie-cutter approach is yet another myth of the materialist mind-set looking for evidence-based research and "deliverables". It fails to acknowledge the nature of the living system or its complexities. Oliver Wendell Holmes Sr., a nineteenth century physician and writer made the comment "*For the simplicity on this side of complexity, I wouldn't give you a fig. But for the simplicity on the other side of complexity, for that I would give you anything I have*." The ready-made approaches typically sit this side of complexity.

The simplicity on the other side is organic, both a method and an art, and all the more potent for that. The elements just pointed to – interior, intuitive, somatic, exterior, scientific, systematic – whatever they may be, will be deployed according to what shows up. In any particular instance, many of the options will not be called for. Different practitioners will have their own favourites and will collaborate with others when it is seen that something else is needed. We cannot all do everything. It is not only the client organisation which has to learn flexibility and adaptability. These qualities will need to be practiced and exemplified by those who work with them. Intelligent organisations call for intelligent practice.

Our task does not involve creating new methods as much as using them in different contextual settings, in more complete, flexible, responsive, agile, forensic, analytic, embodied, intuitive and joined-up ways, and with the fullest possible engagement of the knowledge that an organisation already has of itself.

As the heading of the previous section says – It ain't what we do, it's the way that we do it. That's what will get the results that organisations want, and the world needs.

Jon Freeman June 2017

[i] Michael McMaster. "What is Organisational Intelligence: An intense primer" 2016

[ii] Humberto Maturana Autopoiesis and cognition: The realization of the living. 1980
[iii] Humberto Maturana and Francesco Varela. The Tree of Knowledge. 1987
[iv] Jon Freeman. "The Science of Possibility: Patterns of Connected Consciousness" 2013
[v] Thomas Wohlleben, "The hidden life of trees" 2015
[vi] Clare W. Graves. "Human nature prepares for a momentous leap" in The Futurist, 1974
[vii] Military expression – Volatiility, Uncertainty, Complexity and Ambiguity. See also paper https://www.linkedin.com/pulse/ansa-vuca-jon-freeman
[viii] Alan Watkins. "Wicked Problems" 2015
[ix] Frederic Laloux. "Reinventing Organisations: A Guide to Creating Organizations Inspired by the Next Stage in Human Consciousness" 2014
[x] Brian Castellani and William Hafferty. "Sociology and Complexity Science: A New Field of Inquiry" 2009
[xi] Peter L. Berger and Thomas Luckmann, "The Social Construction of Reality" 1966
[xii] George A. Kelly, "The Psychology of Personal Constructs" 1963
[xiii] Humberto Maturana and Francesco Varela "The Tree of Knowledge" 1987
[xiv] Ralph D. Stacey. "Strategic Management and Organisational Dynamics: The Challenge of Complexity" 2007
[xv] James Gleick. "Chaos: The making of a new science" 1988
[xvi] Ian Stewart. "Does God play Dice: The mathematics of chaos" 1989
[xvii] Ralph D, Stacey. ibid, Page 197
[xviii] Brian Goodwin "How the leopard changed its spots" 1994
[xix] Nora Bateson "Small arcs of larger circles" Article – Leadership within the Paradox of Agency. 2016
[xx] Peter B. Checkland. Soft Systems Methodology in action . 1990
[xxi] Gerald Midgley. Systemic Intervention 2000
[xxii] Michael C. Jackson Systems Approaches to Management. 2000
[xxiii] Russell L. Ackoff. The democratic organisation 1994
[xxiv] Marjolein Lips-Wiersma and Lani Morris "The Map of Meaning: A guide to sustaining our humanity in the world of work" 2011
[xxv] Klaus P Horn and Regina Brick "Invisible Dynamics" 2009
[xxvi] Don E. Beck and Christopher Cowan. "Spiral Dynamics: Mastering Values, Leadership and Change." 1996
[xxvii] Nora Bateson. *Ibid* Article - "Practicality in complexity".