The Practice and Art of Leading Complex Change

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Recent world events have raised anxiety about to how to conceive and lead successful change in turbulent environments. This paper offers a framework with which to formulate, design, plan, lead and implement change where the very nature of the issues at stake are subject to multiple interpretations, and the likelihood of any method achieving a planned outcome is uncertain. Lessons learned from practical application over 20 years are described, and the result is a more responsive and comprehensive approach to change management than many current mainstream approaches. Underpinning this is a model of leadership more suited to complex, disruptive and transformative environments.

INTRODUCTION

The approach to facilitation, leadership and change management outlined in this paper, has been built on and evolved from our exposure to the work of Richard Knowles (2002), Ron Heifetz (1994) and Ralph Stacey (1996).

In the first decade of the last 20 years, we found this approach never failed us in generating workable solutions in very complicated and messy environments. In concert with our colleague, Steve Zuieback the second decade of this 20 years saw us explore new processes and approaches for its use. In the last 5 years we have used it to illuminate and guide leaders in volatile, uncertain, complex and ambiguous environments and guide change initiatives in these same settings. Nick Gowing and Chris Langdon (2015) further stimulated our thinking on these matters.

Back in 1997 when we first came across Knowles, we started to use his model, then known as the process enneagram framework, for facilitation of conversations about complex or wicked problems. It slowly dawned on us that what Knowles provided for us was a "Swiss Army Knife" for change. We started using it as a facilitation tool but found so many other uses for it as time passed, the next being diagnosis. Progressively we found it useful for strategizing change, building coalitions of people willing to engage in change, and guiding the leadership of change.

In Dalmau and Zuieback (2015) there are examples of its application to hostile union-management conflict resolution, safety assessments, client diagnosis, project planning and review, facilitating mergers and acquisitions, roll outs of enterprise resource planning systems (e.g., SAP, JDE), re-aligning world-wide marketing strategies, team building, and the reconfiguration of whole industries within and across countries.

People from accountants to coal miners, health workers, steel makers, corporate executives, marketing professionals, IT professionals, social workers, administrators, politicians and community workers have used it with success and satisfaction. In almost all cases it inevitably fosters positive rational, social and emotional outcomes. Increasingly we have applied it to the practical management of complex change in organizations as a meta-process (see Dick, 1991 p219) and then within that a guide for change at the coalface. It has specific benefits of engagement and alignment in organizations that lead to embedding sustainably new ways of operating.

This paper describes the framework built through practical experience, the methods and approaches to using this tool, and lessons learned and their implications.

Old Thinking Will not Cut It Anymore

Donald Trump has been in the White House for over a year. Equally, in the last five years many other unexpected things have occurred: the rise of the far right across Europe, Russia presenting itself as the liberator of vulnerable countries, profound confusion within the UK political narrative, Duterte leading the Philippines in a manner and style that simply takes many peoples breath away, a US that has apparently lost whatever moral standing it had as a leader of western democracy, and the much faster than expected rise of China into apparently legitimate global leadership.

One assertion behind this paper is that changes over the last five years are happening at unprecedented speed and scale and that models of leadership and change we have traditionally used will not be sufficient to meet the demands these changes are going to bring.

Gowing and Langdon (2015) report, entitled *Thinking the Unthinkable* published brought this clearly to the fore. They state that 2014 was the year it all rose "to the surface", where previously held assumptions just failed to work anymore and a series of events occurred that would have been (to many) unthinkable.

They point to examples:
- The Seizure of Crimea
- Ebola outbreak in Africa
- A massive drop in the oil price
- The enormous influx of refugees into Europe
- ISIL seizing Mosul and then Palmyra (twice)
- The Volkswagen scandal

The US National Intelligence Council in its most recent Global Trends report (2017) and it made for quite sobering reading, suggesting that disruptive changes of a similar nature and scale are entirely possible shortly. They pointed to a world both more dangerous and richer with opportunity than ever before.

On the downside, they predicted for,
- Greater global fragmentation
- A rising trend to pursue localized self-interest
- Attempts to block cooperation at every turn
- Undermining of shared understandings
- Increasing disruption from terrorism
- Profound risks of gross miscalculations on a global scale
- Increasing refugee flows

They pointed to a range of trends that underlie these predictions and assert they will converge at an unprecedented pace to make governing and cooperation harder and change the nature of power—fundamentally altering the global landscape. Perhaps more telling, they assert that "order will remain elusive and tensions high until societies and governments renegotiate their expectations of one another…" (2017, p5).

The World Economic Forum in its Global Risk Report (2017) also made for sober reading. Somewhat starkly, it states, "After the electoral shocks of the last year, many are asking whether the crisis of

mainstream political parties in Western democracies also represents a deeper crisis with democracy itself" (p7). Kell (2018) has described recent times as a period of "ubiquitous and continual crisis".

A common refrain is, that it has always been like this. Gowing & Langdon (2015) might agree, but disagree as to the scale or rapidity. They go further. Their research showed business leaders do not know how to think about these things, are extremely reluctant to talk about them openly (even in the supposed safety of their offices and Boardrooms) and find them 'unpalatable'.

Indeed, underlying most leaders' response to this emerging situation are old and outdated models of what makes for effective leadership and guidance of change. The old thinking is simply not up to the task. It was probably put no better than by Drucker (1993) when he said, "The greatest danger in times of turbulence is not the turbulence; it is to act with yesterday's logic."

Symptoms

What are the signs of the failure of old thinking to deal with this situation? Gowing and Langdon (2015) describe nine symptomatic responses: -
- Being overwhelmed by multiple, intense pressures
- Institutional conformity
- Wilful blindness
- Groupthink
- Risk aversion
- Fear of career limiting moves
- Reactionary mind-sets
- Denial
- Cognitive overload and dissonance

They go on to say that,

> "the lies we tell to ourselves every day are stunningly large, and to some degree, we have to in order to get through the day. But few if any (leaders) have answers on how to respond with the inspired scale and farsightedness necessary. The way we lead organizations has to shift." (p.14)

This inadequacy of leaders' thought processes to comprehend and think about these events and trends is mirrored at a smaller scale within specific industries and even within particular businesses. As too are the mental processes that executives use, or don't use. This same disconnect between the reality of what is happening and the mental processes required is presently most evident at a local level in the taxicab industry in some states of Australia as they battle to make sense of the rise of ride-sharing services such as Uber and Lyft.

On a larger scale, we can anticipate significant discontinuity throughout the transport industry worldwide as various large cities and governments come to terms with the movement sweeping the world known as Mobility as a Service (MaaS) (Goodall, W., et al. 2017). Developments in Helsinki and other cities worldwide have the potential to re-write entirely the social and financial contract between the traveling public, those who build and govern transport infrastructure and those who have provided services and make/lead businesses in this space.

And then there is artificial intelligence (AI). If one is to believe the headlines and Elon Musk, "AI will be the best and worst thing ever for humanity…", (Clifford, 2017) but actually how specifically that will be is yet to unfold. The global debate is full of "cool and scary predictions" as to the potential of machine learning and AI. Nonetheless, it will fundamentally disrupt all aspects of the way we live, work and interact. It is, in fact, difficult to imagine any part of our lives that will not be affected.

At any level of scale, from global to local, there are those who embrace these events and trends and see opportunity. It makes them at the very least intrigued right through to nearly jumping out of their

skins with what might be possible. But these possibility thinkers and optimists do not represent the majority.

It is often hard for the average leader to see quickly the links between, on the one hand, global disruptions of the type that Gowing and Langdon (2015) describe and, on the other hand, their own specific business or part of a large organization. One reason is time. It is difficult to connect the dots when events in one part of the world push their impacts and consequences through to another part when a year or more may have elapsed in between.

Another is different levels of scale. Within a few years, events unfolding in Helsinki and other large cities will, in all likelihood, revolutionize the way people throughout the world travel. These MaaS developments are not yet of a scale to be on the radar of most. Managers and leaders in traditional transport service companies (buses, trains, cabs, etc) who will not see them coming and, in many cases, will take defensive, even futile, postures as the taxicab industry has done in response to ride-sharing services over recent years.

While it is entirely accurate that unthinkables also create opportunities, whatever the event, whatever its scale (global right down to local), when the unthinkable happens it requires a response and it inevitably forces change. Entire industry restructuring with consequent social and economic displacement is one obvious result. It is profoundly confronting to view aged couples sleeping in the doorways of empty shop fronts in Athens. For them the loss of the pension and the eviction from their homes were at one stage unthinkable and caused by forces set in motion decades before – forces and factors for which they had no response.

It was equally unthinkable just a few years ago for the account leader in the Athens office of a large global financial services firm to find himself, his wife and his children returning to his parents in his village of origin to have a roof over their heads. This caused great distress to his superior, as he struggled to lead a massive change, have all his employees accept such unthinkables and re-conceptualize their entire business model.

So, What is Different Now?

Countries, industry sectors, businesses and the public have always been vulnerable to unpredictable or, what Gowing and Langdon (2015) call, non-normative events. And the leaders of business, the executives in corporations, the line managers in plants, the leaders of clinical units in hospitals have always had to adjust, cope and lead change of some sort in response to the impact of these unthinkables.

As Gowing and Langdon contend, two fundamental differences are the scope and rapidity of these unthinkables. But it is more than this. We live in a world that is so deeply interconnected, where an event in one part of the "system" has implications throughout other remote parts almost instantly in ways that cannot be predicted nor managed for.

Blake (2004) suggests our perceptions of discontinuous change are exacerbated as we struggle with inadequate concepts to explain a contemporary 'reality' or new world order. He states that new ideas and perspectives are needed in addition to (not instead of) our more traditional views of the world. This, too, is our contention.

There is a fundamental re-alignment of power occurring in this digital age where old expectations of governments and business leaders no longer apply. As in the Helsinki example, digital disruption will cause a fundamental change in the behavior of massively large groups of people across the planet. Many do not understand nor appreciate the depth and scope of such impacts and as they occur they appear to them as unthinkables.

Against this backdrop how might we think of leadership, how might we practice change? To this we now turn.

Types of Problems

One of the most influential yet straightforward models that has served us very well for over 20 years was first created by Ralph Stacey (1996). It speaks to the types of problems or issues that arise for business leaders, executives and managers. And with different kinds of problems or issues come different

required modes of thinking, different approaches, different mental models. Figure 1 illustrates Stacey's model relating to the types of problems that organizations face.

Stacey posits a way of distinguishing problems we face. The nature of an issue may be one about which we all agree as to its nature through to one around which there are high levels of disagreement. Equally, the problem or issue may be one around which we have a high degree of confidence or certainty as to the best approach through to one in which there is little or no predictability.

There are three spaces that can then be highlighted in this framework, and to mark them simply we will call them

- The bottom left corner
- The middle ground
- The top right space

In the past, we have used this as a simple means for distinguishing between those problems around which the dominant discourse of linear, top-down, leader directed decision-making is appropriate and those problems where a more enabling or emergent disposition is called for, a space we have come to call the "middle ground" – the domain of wicked or complex problems. For the sake of this paper we will define a complex system as one which contains order and disorder simultaneously. This is also true of complex problems.

FIGURE 1
TYPES OF PROBLEMS ORGANIZATIONS FACE (AFTER STACEY)
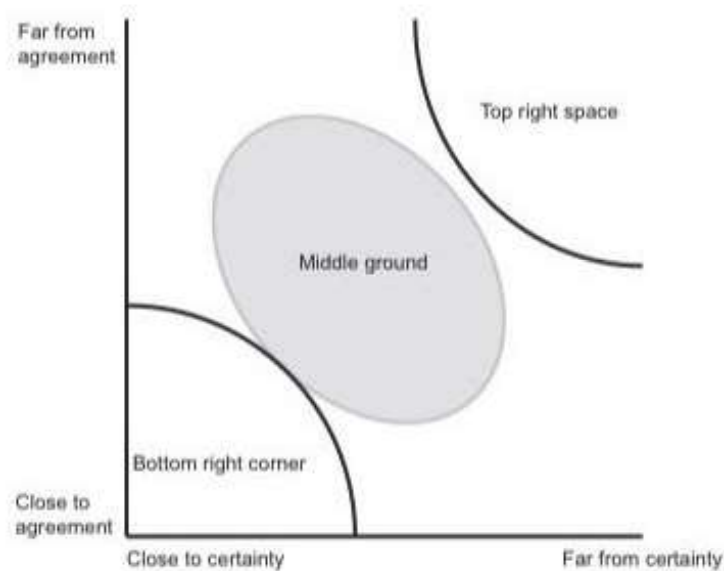
There is a very high degree of overlap between what Churchman (1967) and then Rittel (1973) first called wicked problems and what Stacey suggests are complex problems or those problems that lie in the "middle ground". In our minds they are similar. It should be noted that there is some similarity between this classification and the term adaptive challenges, the work of Heifetz (1994) but there are also some significant differences.

With the rise of the unthinkables, we can now posit three types of problems or issues to which leaders and leaders of change must respond and do so in different ways with different mental models.

In the top right of Figure 1 are those issues around which there are little agreement and little certainty. Stacey (1996) suggested that this is an area for avoidance, anarchy and randomness. This is genuinely the space in which unthinkables live. Every one of the unthinkables described by Gowing and Langdon (2015) fall clearly within this top right space; problems around which there is a lack of consensus as to

the nature of the problem and little confidence that any known strategy will generate a predictable solution.

Until recently, we have argued that the social environments and problem types that many executives and managers face lie mostly in the middle ground. They are problems and issues around which reasonable levels of uncertainty exist as to the likely efficacy of any known strategy and consistent levels of disagreement exist within formal and informal social networks of the organization as to the nature of the problem. This is the world of complex and challenging problems. What is now clear from the work of Gowing and Langdon (2015) is that we must now add the top right space as one for serious consideration by leaders.

This model by Stacey has served us well for over 20 years. It has immediate face validity for executives and managers. But, along with this model has come an unstated assumption that there is no response to top right space events other than to react as seems best at the time and be very attentive to the responses your actions trigger. The image of trying to stay afloat in a small boat in very rough seas comes to mind.

Enter Taleb (2010), best known for his book on Black Swan events. He described such phenomena as an event or occurrence that deviates beyond what is typically expected of a situation and is extremely difficult to predict. Black Swan events are typically seen as random and unexpected. He offers us a very different perspective on such problems and events as occur in the top right space. He starts with the deceptively simple proposition that the opposite of fragile is not robust. In his book of the same name, he introduces the concept of the 'Antifragile' (Taleb, 2012).

The concept of fragility is very familiar to us. It applies to things that break when you strike or stretch them with a relatively small amount of force. Porcelain cups are fragile, some types of wine glasses can be fragile. Things that do not break so easily when you apply force or stress to them we call strong or resilient, even robust. A cast-iron pan, for instance. However, there is a third category, often overlooked. It includes those things that actually get stronger or improve when they are met with a stressor (up to a point). Illustratively, Taleb (2012) points to the safety in the airline industry that exists today due to crashes in the past. It is a safer way to travel today because of past "breakages." So, the opposite of fragile is not robust, but rather anti-fragile.

This antifragile property can be said to apply to living things generally, as in the famous aphorism 'what doesn't kill you makes you stronger.' For example, we are now beginning to realize just how much children who are raised in what we might call "dirty" environments (e.g., some parts of India, Africa) have much stronger immune systems than those raised in more sterile "western" world conditions. For Taleb, all complex systems (like societies, economic systems, businesses, etc.) have, or must confront this property in some way.

He points to a widespread tendency to remove chaos or disorder for it is frightening or in his words "we have been fragilizing the economy, our health, political life, education, almost everything… by suppressing randomness and volatility". This tendency is global and expressed in many forms. Kell (2017) points to the rise across the world of "tough leaders as the answer to uncertainty" (e.g. Putin, Trump, Duterte). The Sarbanes-Oxley Act of 2002 stands at as an example of a similar nature; one that sought to reduce uncertainty in financial reporting in the wake of the Enron crisis that has produced even more uncertainty as an unintended consequence for those companies listed on NASDAQ.

In terms of Stacey's model (Figure 1), we tend to want to drive problems or issues from either the top right space or the middle ground down into the bottom left corner where we can agree with others as to what the question is and we can have confidence that if we undertake action X we will produce result Y. Taleb (2012) argues this approach makes the very systems we seek to address even more fragile

Most Change Fails

It is a sad indictment that the pervasive and dominant model of change management that drives so much modification to structure, strategy and process in the corporate world mostly fails to achieve its desired outcomes (Kotter, 1995). Beer & Nohria (2000) state it in somewhat bleak terms, "The brutal fact is that about 70% of all change initiatives fail" (p.133).

If we look at conventional approaches to change management through lenses supplied by Stacey and Taleb, it is not hard to see why. Change is often conceived and executed within the frames of thinking that sit in the 'bottom left corner' of Figure 1, rather than the middle ground, and it lacks the appropriate style of leadership to support what emerges. Even worse, such thinking is entirely inappropriate to top right space issues and problems.

It is not that such traditional change management thinking is inappropriate everywhere. It works well for those problems and issues that sit in the bottom left corner and are susceptible to resolution by linear, mechanistic modes. The much-used work of Kotter (1995) lies in this domain, if not in what he espouses, then at least as it is practiced by most of his disciples. As implemented by many, this approach is often based on a failure to comprehend that so much change is large, complex and engenders a range of reactions among stakeholders that squarely define it as a middle ground phenomenon. They seem to think that because his model looks comprehensive and has what appears at first glance to be a set of operational steps, it will work, but we assert that there are many problems in organizations to which this approach merely makes matters worse.

The tendency is that this type of change will produce rational outcomes; the task done, the numbers achieved, the organization chart published. We observe that, like the cliché says "he could land the plane, but the passengers were dead, mangled or had parachuted off before the catastrophe". It seems to us that so much change focused on the rational outcome that does not include (equally) social and emotional outcomes is perilous in the extreme. As Stacey (1996) observes this makes the possibility of future change more unlikely. He suggests strongly that problems in the middle ground addressed with the thinking or processes suitable to the bottom left-hand corner will tend to make the problem worse and are not likely to lead to a resolution.

In Taleb's (2012) language, the drive to make highly complex systems ordered actually makes them more fragile. In terms of Stacey's diagram, it pushes elements up into the top right space. But it is worse than this. Successive failure at change makes the prospect of future success even more remote. This is starkly illustrated by Stacey (1996) in what he calls a vicious cycle (See Figure 2).

At its core, we believe there lies a failure to comprehend that a very different set of mental models are needed. Along with this failure to grasp, change is then implemented by those ignorant that the fundamentals of their guiding mental models are inappropriate to the type of problem they seek to address and a series of uncontrolled second order effects ensue, often pushing the issue out into the top right space.

FIGURE 2
VICIOUS CYCLE (AFTER STACEY)
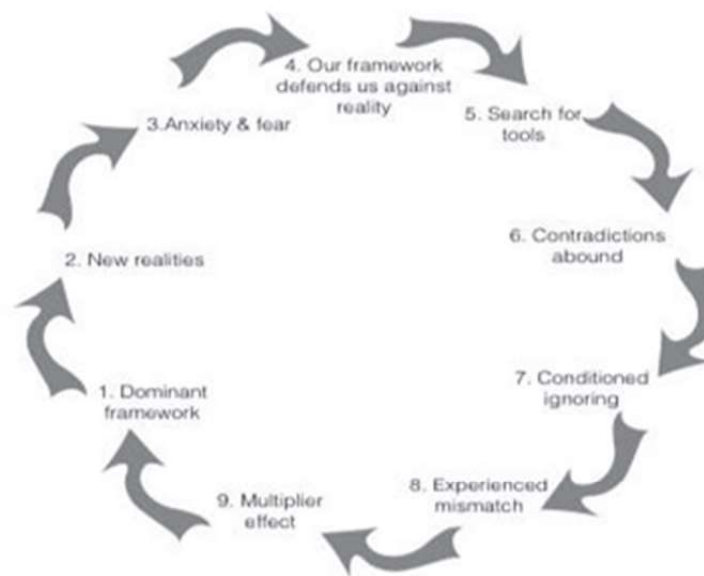
It is our experience that the leadership of change is no different. Complex problems require different thinking and different approaches. Stacey (1996) speaks of complex responsive processes, others speak of complex adaptive systems theory. The core differences between bottom left-corner thinking and the thinking more appropriate to middle ground issues are described in Appendix 1, built mostly from Stacey's frameworks.

To this we can now add that unthinkables also require again some fundamentally different models and ways of leading change. Taleb (2012) gives us some pointers in this regard and these are explored further below in this paper.

For bottom-left-corner problems management ensures it has the right understanding of the issue, there is widespread agreement as to its nature, a known and practiced strategy exists and can be implemented, and the change is directed and implemented, albeit that it must also satisfy at a minimum Kotter's (1995) requirements for

- A clear rationale or case
- A clear picture of what success looks like
- The skilling of individuals to lead and adapt to the change
- A series of sequenced and integrated initiatives
- The appropriate resourcing
- A plan for action and implementation
- A way of monitoring progress

We contend this approach works well with bottom left corner issues, but such issues are now a critically endangered species in modern corporate life. This is better seen as part of a more significant issue that relates the two fundamentally different paradigms at work (See Appendix1)

Middle Ground Problems

On the other hand, our experience suggests that issues faced by leaders, and the social spaces in which they arise, more often have the following characteristics:

- The issue at hand is complex or complicated: there are many enmeshed and interacting parts some of which have either amplifying (positive feedback) or dampening (negative feedback) effects.
- The future is under construction in the minds of the players involved; often it is either wholly or partially unknowable in real and pragmatic ways.
- The drive to convergent thinking is balanced by an awareness of the very different (and often quite emotionally invested) interests that stakeholder groups have around the issue.
- Establishing the boundary of the system is often fraught due to various hidden and informal interests.
- Social strange attractors (Stacey, 2010) are at play in the form of established cultures, i.e. sets of assumptions, beliefs and perspectives that, in turn, guide action.

In this type of milieu it dawns on too few leaders, executives and managers that they actually cannot control for the future and that there are real limits to their drive for efficiency.

Figure 3 is a short-cut tool for identifying complex or middle ground problems.

FIGURE 3
CHECKLIST FOR DECIDING IF YOU HAVE A COMPLEX PROBLEM

If you can place a checkmark against one or more of the following, then it is highly likely you have a complex or middle ground problem.

☐ Whenever the situation is complicated and/or complex
☐ Whenever the change you seek is complicated and/or complex
☐ Whenever the outcomes are vague or unclear
☐ Whenever there are unknown or unpredictable forces at work that can influence or interfere
☐ Whenever people's feelings or reactions are likely to be triggered significantly
☐ Whenever you will need to equip, educate or train others to implement and sustain a change
☐ Whenever there are any politics involved or likely
☐ Whenever individuals or groups have the potential to feel disenfranchised as a result of the change

It can be argued that middle ground or complex problems are now the norm and that if sustainable change is to be achieved, we need more realistic models articulated that are fit for purpose and user friendly.

Top Right Space Problems

Then there come the problems and issues arising from the top right space: these are the unthinkables. The most important characteristic of these problems is that there is something about them that you and your colleagues either

- Did not foresee, or
- If you did have an "inkling", then you and/or your colleagues engaged in any one or more of Gowing and Langdon's nine symptomatic responses outlined earlier in this paper
- The problem probably did not come alone, but in concert with some other issues
- Your current modes of thinking offer no way of embracing it fruitfully
- The unthinkable issue or problem is likely to be quite *unpalatable* to talk about openly.
- It is likely to have far-reaching and potentially disruptive implications at one or more levels of scale: global, national, industry sector or local.

Heifetz (1994) and Stacey (1996) interested us with their alternative views of leadership and organizational processes respectively. Knowles (2002) provided an intriguing way of addressing middle ground problems and we started using it to do so. We quickly found that it worked well, and consistently. Equally, the work of Taleb (2012) hooked us in conceptualizing top right space problems, though the development of workable ways and means for addressing this latter group of problems is in its infancy by comparison.

A Whole of System View

To put it simply, linear models of change and change leadership are inadequate. We make a fundamental distinction between the type of analysis developed in the 17th Century in the Age of Enlightenment (reductionism) with what we might call a whole-of-system viewpoint. Now we realize that in taking this view point we are opening ourselves to potential criticism from post modernists and that some social constructionist management and organization theory discourse has avoided referring to systems concepts. But the simple fact is that we are left dissatisfied with reductionist approaches for they provide a wholly inadequate understanding of complex, interconnected phenomena. The fundamental assumption upon which reductionism rests is the belief that you don't know something until you break it down into its parts.

A whole of system view, on the other hand, assumes there are also things operating at the level of the whole that this approach cannot comprehend. Its origins lie in systems thinking with the work of Ludwig

von Bertalanffy (1968). Checkland (1993) implied that systems thinking is a particular way of thinking about the world and adopting a corresponding set of ideologies and concepts to render world's complexity more comprehensible. To our knowledge, no better way has yet been devised in the 25 years since Checkland made this statement. Systems thinking has come to inform our understanding of organizational behavior, change and leadership by providing what Blake (2004) calls a set of ideologies and concepts that attempt to comprehend organizational complexity. One key benefit is the potential to see the whole of something, how it behaves as a whole and how its parts interact with that whole.

Blake points out that a system perspective perceives individuals and entities as being linked together in a chain of activities and networks. He cites Senge (1995) indicating that when an entire organization (or a significant part of an organization) is viewed as a system, it represents a 'perceived whole' whose component elements 'hang together' because they continually affect each other over time.

The Process Enneagram Fosters a Whole of System Perspective

At the most fundamental level, the process enneagram has enabled those using it to generate easily a picture of the whole system that is their focus or interest. The significance of this should not be underestimated as many organizational and management practices start out by breaking problems down into their constituent elements, believing that if they are re-constructed in some new manner, then the "problem" will be solved. The focus is on the parts, not the whole.

There is still a place for this mindset, but mostly in settings where there is both high social cohesion and stability of power relationships combined with high predictability as to the efficacy of a solution set; what we might call the bottom left corner of Figure 1. This approach, however, often fails to acknowledge or understand the powerful, hidden human cultural and social forces at work in organizations, especially when change is required. It is these forces where there is less agreement, less cohesion that tend to undo well-intentioned mechanistic approaches.

Approaches based on the process enneagram model (Figure 4) help those involved to see "the system" with all its rational and non-rational elements as one, in a simple and visual manner (Dalmau & Tideman, 2010. p78). And when it is supported by appropriate leadership from power figures in the organization, it tends to produce coherent and engaging solutions.

FIGURE 4
PROCESS ENNEAGRAM MODEL
(AFTER KNOWLES 2002)
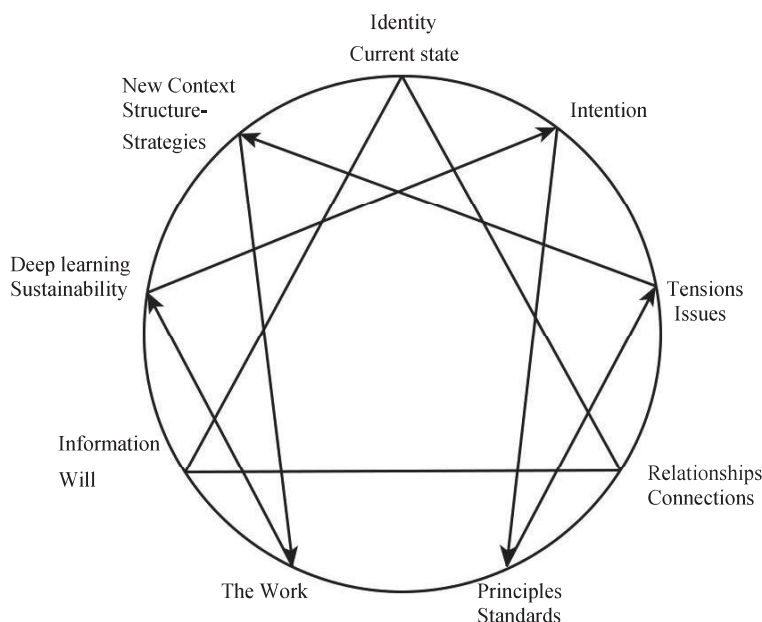
The nine dimensions of the model (see Figure 4) are:
- Current state of the system and the historical factors that created it
- Relationships between various parts of the system and their functionality
- Relevance, functionality and availability of information flowing in the system
- Fundamental goals or intention of the system
- Espoused and actual standards and principles on which the system operates
- Dilemmas, constraints, issues and tensions within the system
- New context and approaches to achieve the intention and resolve dilemmas
- Actual work and activity that is an expression of the previous seven dimensions
- The system's ability to achieve deep learning, respond and sustain itself

Conversations by real people in real settings, sensitively stimulated around these nine dimensions, allow for emergence, paradox and surprise to come forth. Paradox and surprise are essential elements of deep learning – the contradictions, inconsistencies and absurdities they generate in turn foster new perceptions, different perspectives and a level of disassociation that allow a group to move forward.
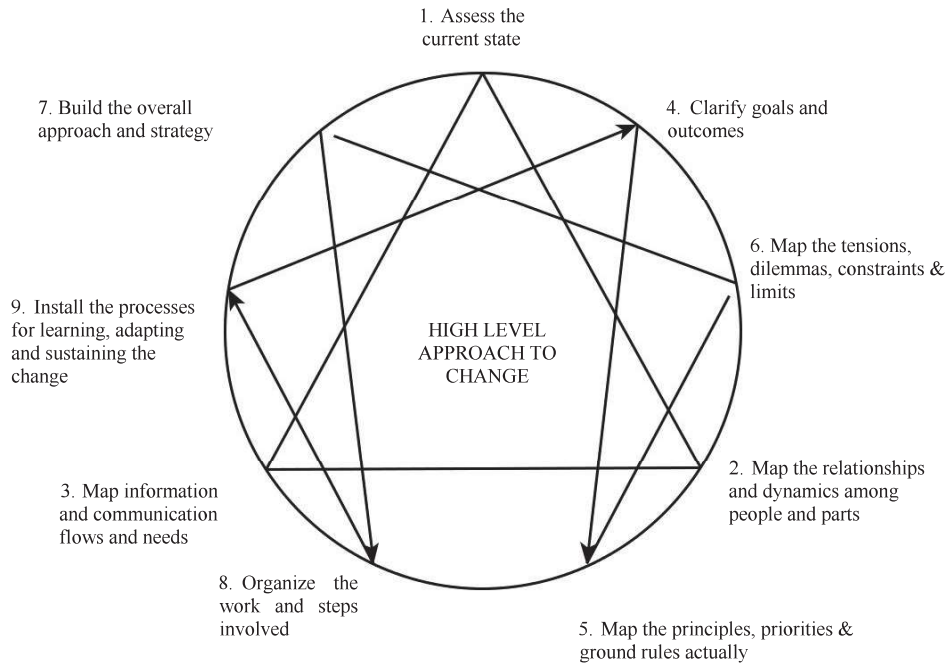
In its purest representation, the process enneagram can be viewed as nine areas of inquiry and engagement, see Table 1.

TABLE 1
PROCESS ENNEAGRAM: NINE DIMENSIONS OF INQUIRY

Identity & Current State	A sense of purpose and meaning – the area of focus that unleashes energy and commitment. The description of the present state in which the players find themselves and the historical forces and factors that have shaped them.
Relationships & Connections	Description of the nature of relationships that the players have with other individuals, groups in and across organizations as a whole, both among people but also among units, functions, groups, and processes. This area includes both ideal and actual relationships.
Information & Will	Understandings about the importance of information and beliefs about the relationship of information to individual and organizational effectiveness, and its impact on coalescing shared meaning to marshal concerted action.
Intention & Ambition	What is it that the players want to create and achieve with people, within their areas of responsibility, around the problem or issue under consideration, or the organization as a whole?
Principles, Ground Rules & Standards	The priorities they hold, the principles they work to, the ground rules they seek to abide by and the standards that model their beliefs and aspirations within the organization, i.e., the underlying ground rules and priorities that guide (or should guide) behavior, strategies and tactics – both espoused and in- use (Dick, B. & Dalmau, T. 1990)
Tensions & Issues	The existing dilemmas, constraints, contradictions and behavioral patterns that are currently keeping individuals, teams and the organization as a whole from realizing the desired outcomes.
New Contexts, Structures & Approaches	The creative perspectives, strategies, structures and approaches that model the espoused principles, ground rules and standards, resolve the tensions, and thus move the "system" toward the intended outcomes.
Work	The specific actions associated with the strategies that need to be implemented.
Deep Learning & Sustainability	This describes a process of ongoing reflection whereby individuals, groups and organizations can learn what is working relative to their outcomes and make course corrections based on the learning, combined with mechanisms for adjustment and regeneration to ensure sustainability.

Early on we started to apply these nine dimensions to plan high level approaches to change tasks using the same framework. It seemed at the time a small conceptual step to take and its utility value and comprehensiveness gave us confidence to continue. It had, as they say, high face validity both for us and to our clients. This high-level framework is depicted in Figure 5.

FIGURE 5
APPROACHING CHANGE

1. Assess the current state
7. Build the overall approach and strategy
4. Clarify goals and outcomes
6. Map the tensions, dilemmas, constraints & limits
9. Install the processes for learning, adapting and sustaining the change
HIGH LEVEL APPROACH TO CHANGE
2. Map the relationships and dynamics among people and parts
3. Map information and communication flows and needs
8. Organize the work and steps involved
5. Map the principles, priorities & ground rules actually

The Fundamentals of Sustainable Change

Doppelt's work (2003) on sustainability struck a deep chord. He provides a comprehensive framework on what makes for sustainable change and spells out the necessary conditions for change to persist over time and to not diminish the optionality of future "generations."

He suggests a need to change the controlling mindset or paradigm shared by most in the system. No change will be sustainable without re-arranging the connections among the parts of the system, along with the system's overall goal and the rules of engagement. He suggests sustainable change also demands a shift in what and how information flows combined with new feedback and corrective mechanisms. Acknowledging the reality of what we face, altering the parameters by which performance is measured is another requirement, as is building new ways to pay attention and respond to what is emerging and then, of course, coordinating resourcing and driving movement.

We soon realized the Doppelt model bore a striking resemblance to the dimensions of the process enneagram and started to merge the two. This approach had its first outing in real world in 2005 as a framework for leading internal global change in one of the "Big Four" accounting firms. We have been applying and refining it since. (See Figure 6).

FIGURE 6
FOUNDATIONS OF SUSTAINABLE CHANGE
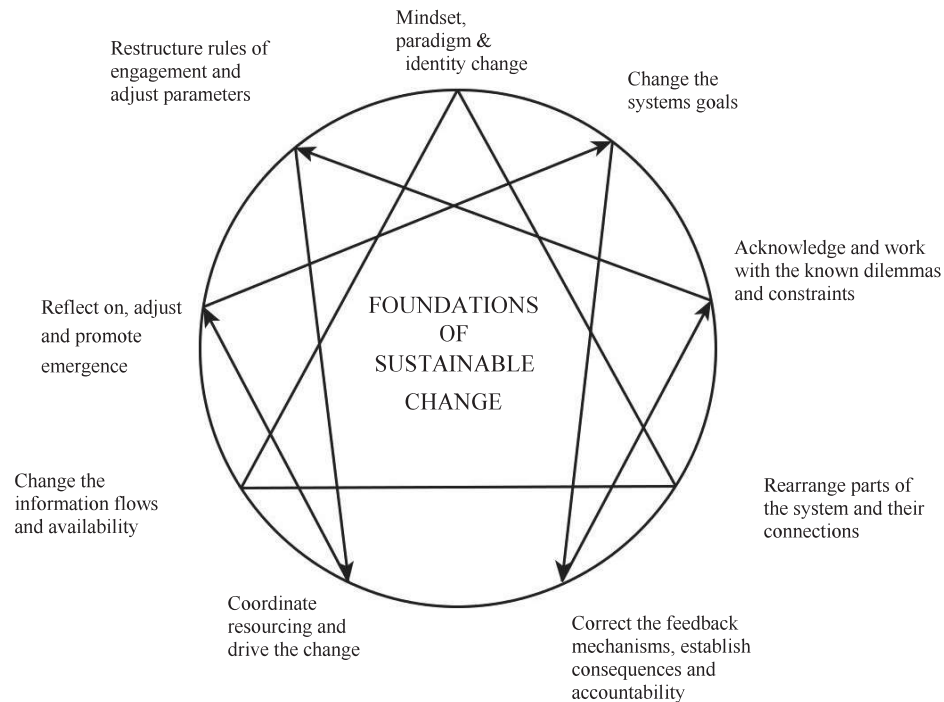
We have applied it to organizations seeking to implement a whole new way of developing and delivering an organ donation program across Australia, creating an integrated national approach to something that had been done in isolation by various state institutions. We have used it in,

- Assisting a very successful construction company transition from a family-owned enterprise to a professional corporation (Australia)
- Reconceptualizing and driving significant improvement in safety performance in a global alumina company (Global)
- Establishing workable understanding and reconfiguring relationship between a gold and copper producer and the local community to reduce preventable deaths (Laos)
- Clinical leadership improvement in one of the world's most advanced hospitals (UK)
- Re-organizing a resources sector industry association (Global)
- Diagnosing and driving a fundamental re-configuration of management and operations in a gold producer (South Africa)
- Leadership development in one of the largest school systems in the world (USA)
- Guiding the development of a startup resources company (Australia)
- Establishing a productive and respectful relationship between forest products industry and local environmental activists (USA)
- Re-establishing trust and personal/political safety in the clinical workforce of a significant public hospital (Australia)
- Defining a workable organizational configuration for a global branded ballet company (UK)
- Building alignment and working relationships among the management group of a large accountancy firm across eight countries (Europe)

This list is only partial but illustrates the diversity of change issues to which this approach has been used successfully over the last decade or more.

It seemed to us they have all involved an underlying cyclical and emergent interplay among five main elements

- Undertaking a diagnosis or strategic assessment
- Establishing the leadership of change process
- Planning the change itself
- Guiding and energizing the change
- Adapting and sustaining the change

These elements are depicted in Figure 7.

FIGURE 7
FIVE CORE PROCESSES
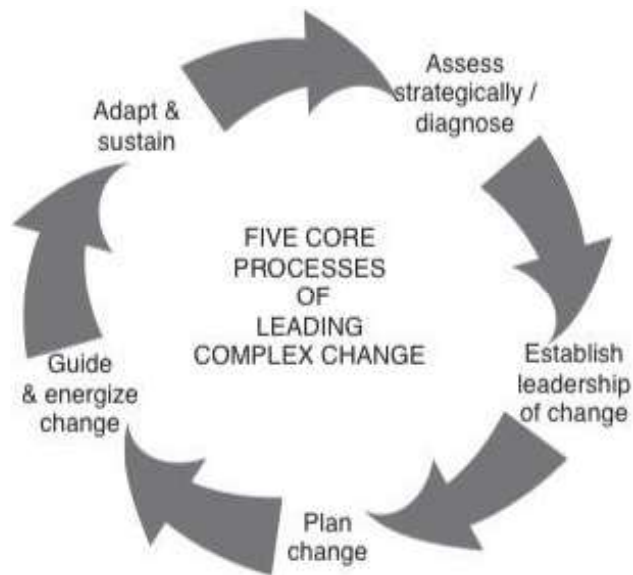
We have come to think of these elements as five core processes necessary to lead and sustain change in complicated and/or complex situations. To use the terminology of Michael Grinder (2007) there is both a science and art to their use, but one thing of which we are sure is that they work. To engage with bottom-left-corner issues we believe there are many and useful frameworks (e.g. Kotter, 1995) but such issues are increasingly rare. We have found this approach, based as it is on the five core processes, to be more appropriate to middle ground problems.

This framework based on the work of Heifetz, Stacey, Knowles, Zueback and Doppelt, can be applied in different ways to each of these stages, as it can also help assess and improve any change process currently underway. It can even apply to the leadership of the modern organization or start-up.

It must be emphasized that although five key processes are discussed as part of overall management of change process, they are not linear steps. These processes occur iteratively, and often concurrently. They should not be treated as steps, that once attempted are complete. An environment and capacity for emergence is the only way that complex change can be achieved.

The remainder of this paper will amplify these five processes.

STRATEGIC ASSESSMENT

We know that complex change is tricky, essentially because it requires people to change their ways, in addition to any change in structures, processes, and strategies. Both groups of people and organizations seem hardwired to resist change naturally. As Heifetz et al (2009, p49) state,

Of course, organizations, like all human systems, are highly complex. And the structures, culture, and defaults that define and maintain them prove tenacious. But they are tenacious for a reason. It took a long time for them to develop into self-reinforcing systems... And as tried and true patterns of thinking and acting produced success for the organization, they also produced success for the individuals who embraced those patterns. The people who rose to the top of the organization because of their ability to work with the system as is will have little interest in challenging its structures, culture and defaults.

Barsoux & Anand (2007, p78) state,

...failed corporate transformations are usually attributed to execution - but often leaders misdiagnose what changes need to be made. When organizations pursue the wrong changes or tackle them in the wrong order, existing problems get worse, new ones are created, and employees, having been burned, become wary of future initiatives.

Diagnosing the issue(s) or challenges and strategically assessing the current situation is, therefore, the single-most important task in any change process. Often this stage is undervalued and assumptions are made based on symptoms, not causes. Another tendency in organizations is to approach the diagnostic task in a logical, linear, analytical way, often focusing on the business or 'technical' aspects of the challenge separate from "the cultural and political and human dimensions of the situation" (Heifetz et al., 2009). To diagnose properly requires stepping back from the situation, sometimes referred to as being in 'Third Position' (Grinder & DeLozier, 1995) or getting "on the balcony" (Heifetz et al., 2009). which can be a challenge in itself especially for those deeply embedded in an organization. This 'stepping back' is also essential to gain a whole of system view, critical for bringing about change.

Zuieback & Dalmau (2015) provide a comprehensive and detailed overview and methodology for this strategic assessment process phase in some detail. Appendix 2 depicts the detail of a strategic assessment enneagram which can guide the conversations and work required for diagnosis. Taylor (2013) provides a valuable adjunct to the templates as she offers practical advice on how actually to use this and other templates mentioned in this paper.

The diagnosis is vital, but so is the framing - a key element of this phase. Heifetz et al. suggest it essential to identify,

- Where the challenge to the organization is coming from - is it internal, external or both?
- Where the authority lies to manage the organization and the environment?
- Who is well positioned to intervene?
- If similar complex challenges have been faced before and what strategies were used and how well did they work?
- What assumptions are being made that may constrain the understanding of the problem or indeed the range of interventions and approaches that could be considered?
- What are the values driving observed behavior (as opposed to what is espoused)?
- Where the loyalties, hidden alliances or indeed hostilities lie?
- Who and what may be lost (e.g. identity, competence, comfort, security, reputation, time, money, power, control, status, resources, independence)?

These are as important questions that fit within the suggestions made by Taylor (2013) and Zuieback & Dalmau (2015).

The diagnostic process and inquiry into the whole system normally yield an accurate and detailed people, business and environmental context of the issue or challenges. From this type of strategic assessment, we notice groups are far more capable of creating a clear outcome(s) or description of what success would look like.

ESTABLISHING LEADERSHIP OF THE CHANGE PROCESS

It has been our experience that successful change in organizations only occurs if it is well led. Easy to say, but not always that easy to achieve.

The Age of Enlightenment taught us to see the world as something which could be observed and changed by us as agents, something separate to ourselves, upon which we could act. The 20th century has taught us otherwise. We are connected to everything, and when as a leader we choose a path, respond to a question, we are communing with the reality outside ourselves. We do not come to any change clean of our default patterns, world views and predispositions.

Understanding yourself, your default patterns, your unconscious loyalties and the real effectiveness of your repertoire of responses as a leader of change is the first step in starting any change process. This topic is worth a whole presentation in its own right and we direct the reader to Heifetz et al, Part 4 (2009), for a comprehensive and relevant overview.
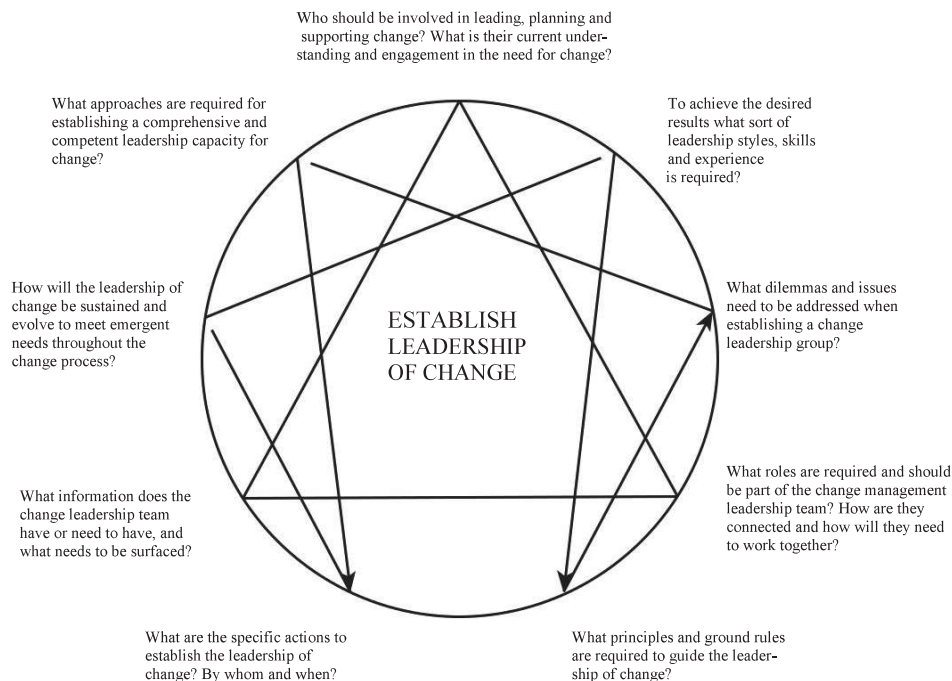
And leadership of complex change is not a solo sport: it can only be done with others. Where we have seen change work well, it has always been led by a team, a team formed and operating from the very start. Such a Change Leadership Team is almost mandatory to guide and facilitate complex change where the scope is large, the organization geographically dispersed or the time frame compressed. And self-understanding necessary for the overall leaders of the change is equally needed as a pre-condition for all such team members.

What then are the challenges for the leadership of complex change, either by an individual or a Change Leadership Team? Again, we can turn to our Swiss Army Knife of change, the process enneagram for some answers (See Figure 8). Successful change will require the leader (s) to,

- Reveal, clarify, make explicit the current situation and key drivers for change, and enrol those who will influence and lead the change
- Build key required relationships and connections if the change process is to be successful
- Gathering and making accessible all the context and information relevant to change
- Build a shared picture with these key people about the purpose of the change and why it is needed, about what success looks like,
- Establish with them core operating principles to guide the change process
- Surface and make explicit with them the tensions and issues, dilemmas and problems associated with change
- Agree with them the context for action
- Establish with them ways and means to ensure the change work is done efficiently and effectively
- Agree with them in advance ways to evaluate, learn and adapt throughout the process

The role of a Change Leadership Team is to, in the first instance, assess the current situation and articulate the desired outcomes before identifying and understanding all the elements involved in the required change from a whole of system view-point. Then a plan needs to be developed for sustainable change, with a process for monitoring the change as it implemented. Communications and engagement are critical to the change process and therefore a clear Communication Plan is needed from the outset. In some very large organizations this is allocated to a specialized and focused group of "comms people". Our experience is that this approach invariably fails and becomes, down the track, a source of unnecessary tension for the change leadership group. It works well when the usual company communication infrastructure, but more especially engagement system. is embedded into the change leadership group and not treated as a separate task within a "change project". From the work of Bridges (2004) we know that much of the change required affects people and their psychological transition to what is needed. Recognizing the phases of transition for people and groups by the Change Leadership Team and building this into the process or indeed creating a separate Transition Plan may be required.

FIGURE 8
ESTABLISHING THE LEADERSHIP OF CHANGE

Who should be involved in leading, planning and supporting change? What is their current understanding and engagement in the need for change?

What approaches are required for establishing a comprehensive and competent leadership capacity for change?

To achieve the desired results what sort of leadership styles, skills and experience is required?

How will the leadership of change be sustained and evolve to meet emergent needs throughout the change process?

ESTABLISH LEADERSHIP OF CHANGE

What dilemmas and issues need to be addressed when establishing a change leadership group?

What information does the change leadership team have or need to have, and what needs to be surfaced?

What roles are required and should be part of the change management leadership team? How are they connected and how will they need to work together?

What are the specific actions to establish the leadership of change? By whom and when?

What principles and ground rules are required to guide the leadership of change?

PLANNING THE CHANGE

Building a good change management plan is really about getting the right information in the room with the right people. But don't be seduced by thinking producing the plan is "the task." Like all phases it is an iterative and emergent process that needs to be continuously revisited in the light of information that emerges as the change process unfolds.

The two fundamental questions are, 'What is the system we are trying to change, and why?' (i.e. focus and rationale) and 'who actually needs to be part of building the plan?'.

The strategic assessment (diagnosis) undertaken as outlined above provides the input for answering the first question.

Those identified as essential in building the plan need to work through this together and again a enneagram template can guide this part of the process (See Figure 9). It is easy to assume that the focus and rationale are self-evident, however, in human systems, this is often the first (and most fundamental) mistake.

Determining who needs to be part of building the plan should emerge again as part of the strategic assessment process. Heifetz et al. (2009) questions above for framing of change are valuable in identifying change planners. For example, who is well positioned to intervene, where does the challenge lie, who is accountable, what particular parts of the internal politics need to be paid attention to.
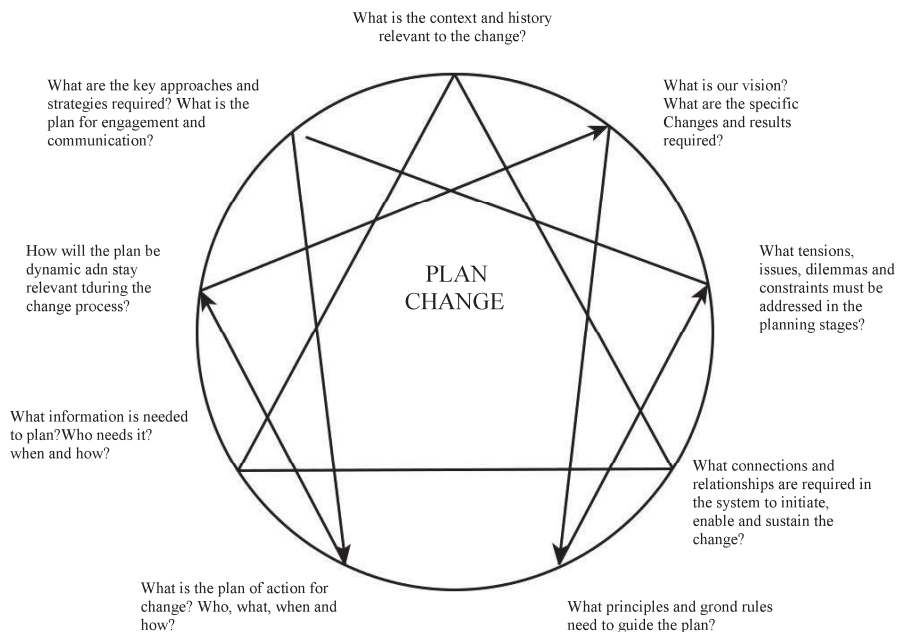
Once these two questions have been addressed and an aligned and high performing team to lead the change is in place, then actually planning work can commence. Appendix 2 provides a enneagram map of the focus and type of questions that could guide the conversations and preparation.

It is critical at the initial planning stage to raise and embrace the question of how the change can be sustained and adjusted over time. Specific actions and processes must be built into this planning phase from the outset if sustainable change is to be achieved. For details of how to do this see the relevant section below.

Why is this planning phase so important? The answer is probably best summarized by Heifetz et al. (2009, p128) when they state,

Thoughtful framing means communicating your intervention in a way that enables group members to understand what you have in mind, why the intervention is important, and how they can help carry it out. A well-framed intervention strikes a chord in people, speaking to their hopes and fears. That is, it starts where they are, not where you are. And it inspires them to move forward. As we've noted, Martin Luther King Jr. anchored his dream in the American dream. By doing so, he reminded Americans of the starting point for their nation, challenging people to give life to their dream, not only his own.

FIGURE 9
PLANNING THE CHANGE

What is the context and history relevant to the change?

What are the key approaches and strategies required? What is the plan for engagement and communication?

What is our vision? What are the specific Changes and results required?

How will the plan be dynamic adn stay relevant tduring the change process?

PLAN CHANGE

What tensions, issues, dilemmas and constraints must be addressed in the planning stages?

What information is needed to plan?Who needs it? when and how?

What connections and relationships are required in the system to initiate, enable and sustain the change?

What is the plan of action for change? Who, what, when and how?

What principles and grond rules need to guide the plan?

GUIDE AND ENERGIZE THE CHANGE

We could argue that guiding and energizing the change has already begun from the first strategic assessment or diagnosis of an issue or emerging challenge. Likewise, development of the planning phase and the engagement and alignment of key leaders (formal and informal) in the change process also requires guidance and energy. Rather than thinking of 'guide and energize change' as just referring to an "implementation phase" we, like Doppelt, believe that it is more useful to talk about guiding and energizing the change process in an iterative and on-going way.
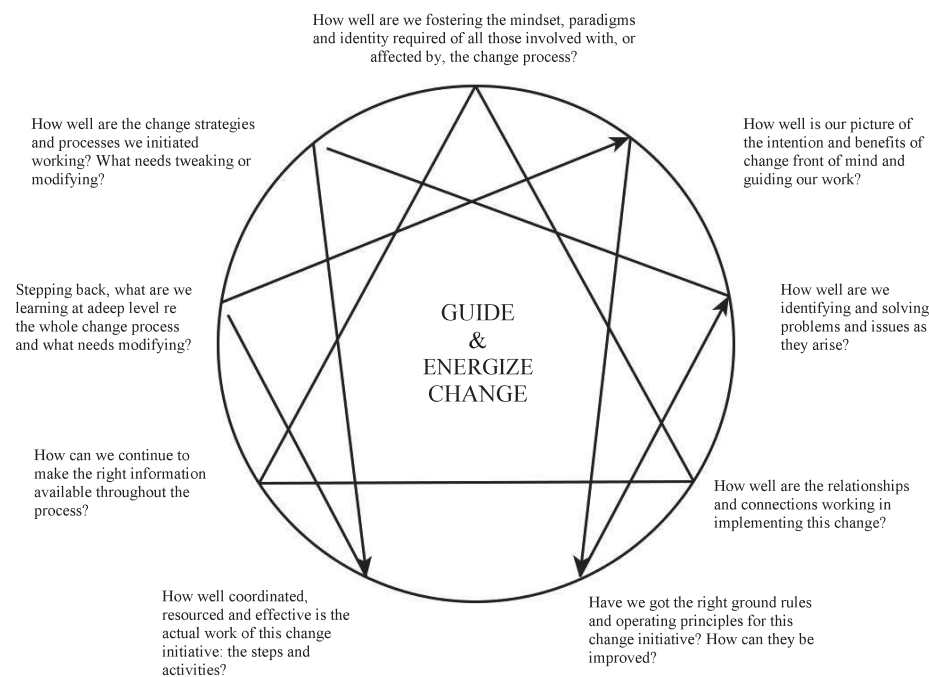
The process for guiding and energizing change may be the responsibility or a Change Leadership team or something less formal in other circumstances. Regardless, yet again we can pull out our trusty Swiss Army knife of change, the enneagram, and apply it to this element of the change task. It can guide us with the following foci: -

- How well are we fostering the mindset, paradigms and identity required of all those involved with or affected by the change process?
- How well are the relationships connections working in implementing this change?
- How can we continue to make the right information available throughout the process?
- How well is our picture of the intention and benefits of change front of mind and guiding our work?

- Have we got the right ground rules and operating principles for this change initiative? How can they be improved?
- How well are we identifying and solving problems and issues as they arise?
- How well are the change strategies and processes we initiated working? What needs tweaking or modifying?
- How well coordinated, resourced and effective is the actual work of this change initiative: the steps and activities?
- Stepping back, what are we learning at a deep level re the whole change process and what needs modifying?

Figure 10 outlines some useful question to guide and energize change.

FIGURE 10
GUIDING AND ENERGIZING CHANGE

How well are we fostering the mindset, paradigms and identity required of all those involved with, or affected by, the change process?

How well are the change strategies and processes we initiated working? What needs tweaking or modifying?

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GUIDE
&
ENERGIZE
CHANGE

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ADAPT AND SUSTAIN THE CHANGE

There is a very thin line between this phase of the overall change process (adaptation and sustainability) and the one preceding it (guidance and energizing). But they are nevertheless two quite distinct tasks, probably best described by an analogy.

Imagine you are a passenger in a light plane on a flight to a particular airport. You are sitting next to the pilot and know enough about flying to realize s/he has set a destination (e.g. Airport A) and is continually scanning gauges and other information, adjusting ensure the aircraft will eventually land at the designated spot. But then imagine the pilot receives information that there will be significant weather when you are due to arrive at Airport A and you have to divert to Airport B. The pilot then reviews the current position, the new destination and sets a new course to Airport B. The two mental processes involved are both different in type and different in logical level.

Guiding and energizing the process is equivalent to the first of these two processes, while adapting and sustaining the change is equivalent to the second. They are akin to the difference between single and double loop learning described eloquently by Argyris (1977).

Sustaining the change and adapting to emergent situations that could never have been foreseen when the change process began, is one of the most common reasons for failure in change initiatives (Beer & Nohria, 2000). The failure to have this level of conversation, this deeper level of review is, in our experience, one of the key pitfalls in leading complex change - it is tough to rescue a change process once it has fallen into this pit.

Figure 11, again sets out a set of guiding questions which should be addressed iteratively as the change process unfolds: -

- What might be done to foster better engagement of interest groups, create new perspectives, foster new mindsets and build supportive cultural patterns?
- How well are the connections and relationships working to sustain this change initiative?
- What extra might be done to ensure the change is supported by the right information flows, its flows & availability?
- How well formed, clear and still appropriate is our intention?
- What extra might be done to ensure we have the right mechanisms and systems to monitor progress, take corrective action, and install real consequences?
- What new strategic dilemmas & constraints have emerged and how might they be embraced?
- How fit for purpose in the light of our updated intention is the context in which we are operating and the approaches we have taken?
- What extra might be done to ensure we have the right ways of coordinating, resourcing and driving the changes?
- What extra might be done to foster attention to the unfolding change as a whole, adjusting & promoting new forms learnings & insights?

FIGURE 11
ADAPTING AND SUSTAINING THE CHANGE
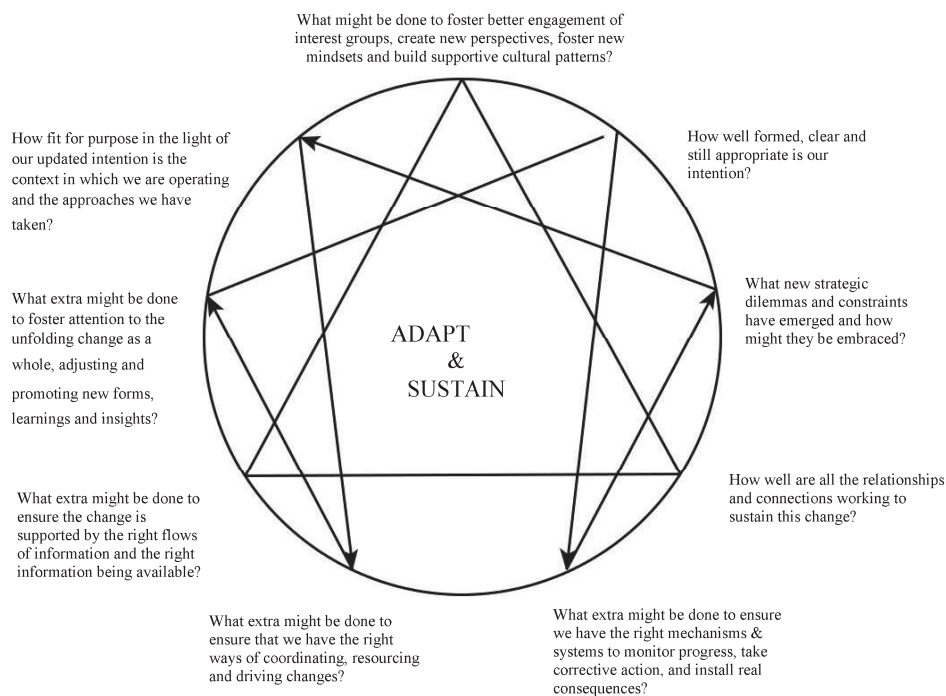
LEADERSHIP OF COMPLEX ORGANIZATIONS

It is a very short step to take in moving from this way of approaching complex change to the general question of leadership in all complex organizations - i.e. most modern large corporate settings. Using the perspectives on which this model is built combined with our own experience we can posit possible domains for people who find themselves as leaders in such settings.

The understandings from the perspectives described in this paper also allow us to lead and manage in more effective ways. They would assert a core function of leadership is to bring some form of coherent mindset and identity to the total system. Effective leadership seeks to
- Cultivate alertness and consciousness in the system and among its members
- Bring diversity and difference to the fore
- Build connections among the various actors and all parts of the system with one another.
- Feed the system with information and ensure that it is maximized and fluid
- Foster creativity, surprise, discovery and mess.
- Ensure a climate in which people can trust, honor and appreciate the group to which they belong

But how to do this? We start with eight key foci as described in Table 2.

TABLE 2
FOCI FOR EFFECTIVE LEADERSHIP

|	
Vision as a conversation in process	Foster deep conversations continually and extensively about what the organization is about, its role in the world and where it is heading. Foster through these conversations a strong sense of unity of purpose.
Strong fluid connections and relationships	Focus on building strong relationships with people inside and outside the organization. Break down silos between groups – "the most effective way to change a linear structure and engage in non-linear processes is to attend to the non-linear world of relationships" (Regine & Lewin, 2000). Being accessible, listening and being attuned to your people is part of building strong relationships. Foster changing and evolving, fluid forms of connection as fits the need and purpose.
Embrace and foster diversity in all forms	Foster and seek out a diversity of ideas, views and approaches, backgrounds, perspectives and people.
Values-driven decisions and behaviors:	Values is what are sometimes referred to as the 'attractors' in the system. An explicit set of shared priorities that are lived by all is vital to the healthy functioning of the organizational system. These values then need to translate into social contracts that spell out the behaviors to be promoted and those to be avoided.
Experimentation and learning	Encourage risk-taking and experimentation. But experimentation for its own sake is an indulgence. Workplaces should be places to experiment, make mistakes, reflect and learn!
Creative tension	Surfacing and dealing with the causes of tension in organizations, sparks creativity, and fosters flexibility and adaptation. Avoiding tensions and keeping things comfortable or pseudo-safe is the pathway to organizational torpor.
Simple rules of engagement	In complex systems it is better to have a few simple rules for how people and parts of the system related rather than many that complicate.
Feedback processes	Nurture strong feedback loops and the flow of information through the system, both short cycle and long cycle. Figure 12 depicts these elements.

FIGURE 12
LEADERSHIP OF COMPLEX ORGANIZATIONS

## RECONCEIVING HOW TO RESPOND TO UNTHINKABLES

Much of this paper has been about open-ended change in complex organizational settings. But it was Nassim Taleb in his work on anti-fragility that pointed us in the direction of unanticipated change and the consequences of traditional common responses to same. We now turn to this type of change or what Gowing and Langdon call "unthinkables". We include their unthinkables within the broader category of unanticipated changes or events. See Figure 13.

FIGURE 13
TYPES OF CHANGE
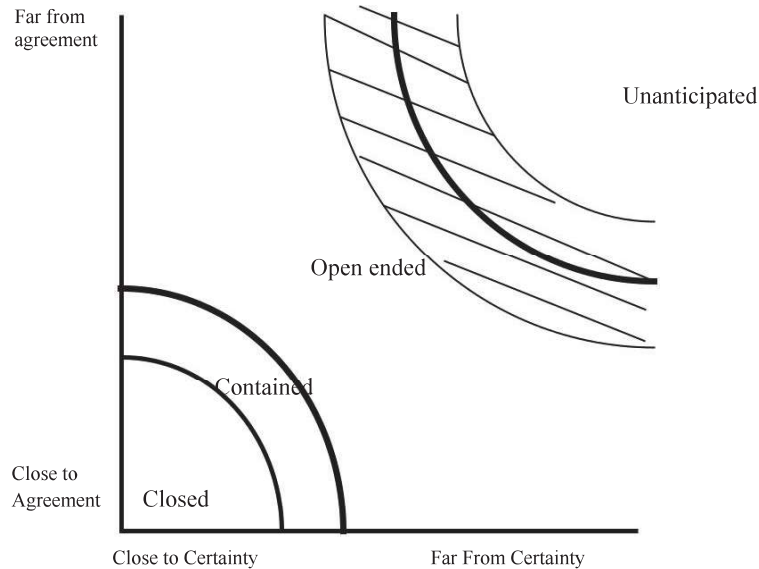
These types of events require a third and fundamentally different mindset again. This paper has focused on the middle ground but would be incomplete without addressing this domain. With each field we associate a different approach. See Figures 14 and 15.

TABLE 14
THREE MINDSETS
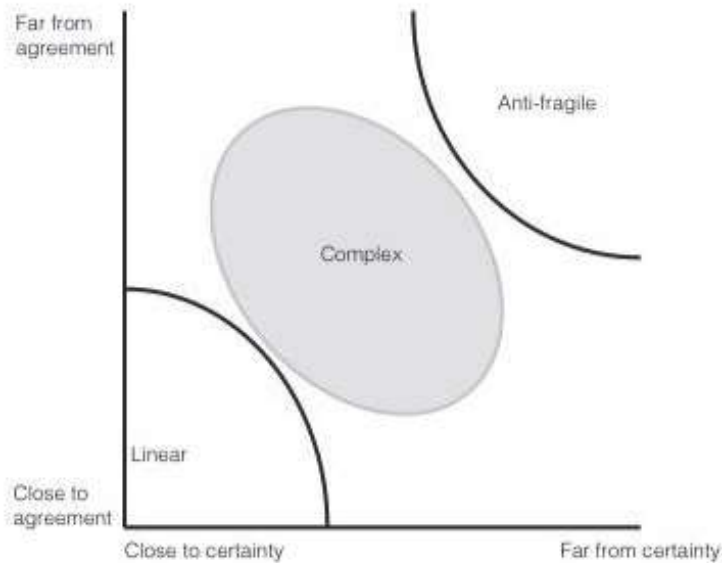
If your issue and aspirations lie rightfully in the bottom left -hand corner, then the linear approaches to change management (e.g. John Kotter's work) are appropriate. If, you are "playing" with complex issues then our experience suggests you are more likely to succeed if you take the approach outlined in this presentation. But issues that arise from the top right space are, of their nature, difficult to foresee or

anticipate, may be either too slow to perceive or too fast to respond to coherently and usually engender reactive coping mechanisms. We suggest that the mindset required for this domain is one of organizational capacity building, a topic worthy of another paper in its own right.

Taleb (2012) describes many traps for naive players in this space but does settle on six approaches that are likely to increase a system's capacity to respond to such unthinkables. They are,

Learning from the mistakes of others: The simplest and most naive, inappropriate form of this response is, "Oh, they did that, and under similar circumstances, we will do this, something very different and we will succeed." The graveyards of the corporate world are littered with former companies that used this fallacious thinking. The only effective way to learn from the mistakes of others is to undertake a whole-of-system recursive analysis to generate deep understanding. Meg Wheatley (pers. comm. Provo. Utah. 1997) first introduced us to the term AAR - After Action Review - a term coined in the US Military and there is a process enneagram devoted to this task that engenders whole-of-system learning and understanding.

Bimodal strategy: Taleb refers to this as the barbell strategy. It addresses the fundamental and (what should be) obvious reality that the breaking of something fragile is irreversible. Taleb (2012) states: "inconsequential unless you first reduce that risk of breaking" Taleb goes on to describe this approach as a dual attitude of playing it safe in some areas and taking a lot of small risks in others, hence achieving antifragility.

TABLE 15
THREE TASKS
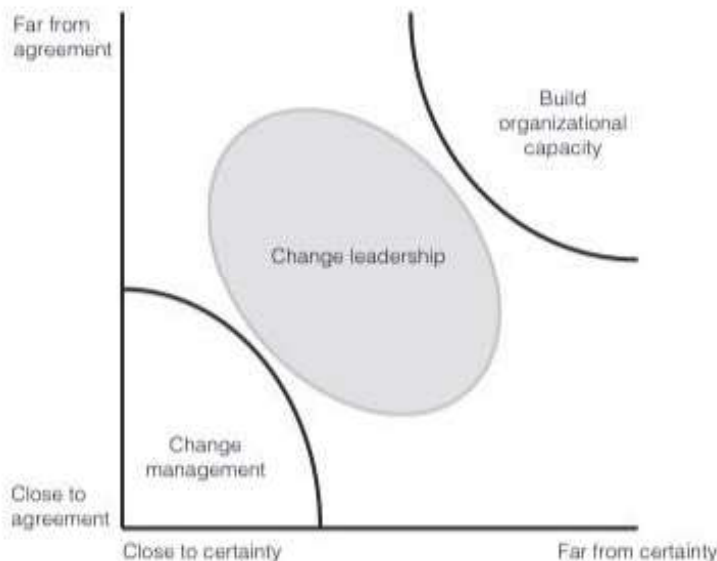
Increase optionality - Flâneur: The rational flâneur is someone who, unlike a tourist, decides at every step to revise his or her schedule so that they can view things based on new information. The flâneur is not a prisoner of a plan, nor is the equivalent organization. As Taleb (2012) states the difference between the antifragile and the fragile lies is this space. But the antifragile needs to select what's best— the best option. How is this expressed in the real world? One of us is working with a global jewelry chain which uses this practice to underpin its merchandising and marketing strategy. The time from conception to display on shelves in over 300 stores worldwide is less than six weeks. Every week, the entire merchandise in all stores (each is identical) is reviewed and that which is not working is discarded and new trending products replace these items. It has helped the company grow at a phenomenal rate and enabled it withstand some unforeseen shocks in the market over the last five years.

Breaking the Soviet Harvard illusion: Taleb's description of this illusion is somewhat convoluted - it was probably better described by Reg Revans (2003), the father of action learning in distinguishing between two types of knowledge: P (programmed knowledge - what you acquire in school, can get grades for, can codify, what is "explainable, academizable, rationalizable, formalizable, theoretizable, codifiable") and Q knowledge (knowledge and insight that comes from questioning and intuition - uncodifiable, more complex, intuitive, or experience-based type of knowledge).

In a similar vein, Tversky and Kahneman (1974) opine

> Many decisions are based on beliefs concerning the likelihood of uncertain events... people rely on a limited number of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgemental operations. In general, these heuristics are quite useful, but sometimes they lead to severe and systematic errors... A better understanding of these heuristics and of the biases to which they lead could improve judgments and decisions in situations of uncertainty (p.1124)

Likewise, Taleb asserts that association is mistaken for cause, whereas tinkering, experimentation, wiki-engagements, modern hackathons, luck, trial and error will forever produce a larger range of solutions that withstand the shock of the unanticipated. Consequently, an over-reliance on strategic planning can make a corporation option-blind, whereas a reinforcing and rewarding experimentation and intuition provide greater optionality when faced with the unanticipated.

Skin in the game: In traditional societies, a person is only as respectable and as worthy as the downside s/he is willing to face for the sake of others. Taleb asserts one should never take advice from experts, but choose successful people and see what they do for they are truly invested. So, it is with organizations - one in which key figures have real skin in the game (i.e. financial ownership) are more likely to choose strategies that will strengthen the entity to withstand the unexpected.

Redundancy: A fundamental premise of systems engineering theory is that a system with more redundant elements has more optionality than one with less. So it is, for example, with aircraft design and operations, and so it should be with organizations who seek to withstand and grow from the shock of unthinkables occurring in their midst. Redundancy as a core design principle (i.e. creating alternative simultaneous pathways to achieve the same end) can and should be expressed in products, services, channels to market, strategies, operational systems and organization design, to name but a few aspects. Unfortunately, the drive to operational efficiency often results in organizations designed with little to no redundancy and consequently, such companies are ultimately very fragile.

None of these six responses to unthinkables are simple clear processes. They are more strategic operating principles that are likely to increase underlying organizational capacity to respond appropriately to unforeseen shocks. Their expression in each case will be peculiar to the individual corporate context.

LESSONS LEARNED

We are reminded at this point of the words of Dee Hock (1998) who said:

> Change is not about understanding new things or having new ideas; it's about seeing old things with new eyes-from different perspectives. Change is not about re-organizing, re-engineering, re-inventing, re-capitalizing. It's about re-conceiving! When you re-conceive something- a thought, a situation, a corporation, a product- you create a whole new order. Do that, and creativity will flood your mind. Do that and you will release fundamentally new ways of working and being.

This paper has been essentially about our own experience with reconceiving what has been a fairly linear and traditional approach to change management in the light of increasingly rapid and far-reaching environmental changes and their deep impact on corporate life. When we have combined the use of the

underlying construct of the process enneagram with the change process cycle to guide our thinking and choices, we find this approach works far better.

Along the way we have learned some lessons about,

- The sponsor or leader
- Requisite mindset
- Outcomes
- Diversity and numbers
- Quality and authenticity of the relationships
- Designing for sustainability
- Formulas
- Adaptation and information
- Engagement
- Leadership and capacity building

First and foremost, it requires a particular type of leader or sponsor in the client organization to succeed, a person who is averse to simple formulaic solution sets. We are reminded of the aphorism "to every complex problem there is always a simple solution and it is always wrong". This leader or sponsor needs to persist in their role and position of influence throughout the whole change initiative. So too, it is with the leadership of change. Many of the actual activities undertaken in more traditional and reductionist change processes (bottom left corner) are little different from those undertaken within this approach. But we have learned that using this approach, with the associated mindset, choices and processes, produces outcomes that are, put simply, much more than rational outcomes, more sustainable and more encompassing. We find consistently that we generate supportive social and emotional outcomes as well as rational ones, and these only add to the change's sustainability.

As we noted earlier in this paper, the leadership of complex change is not a solo sport - you cannot do this alone and be successful. Key players with diverse points of view must be involved, people who can put personal needs and agendas aside and work for a greater good. And in a similar vein, the quality and authenticity of the relationships among those gathered to lead the change is a key predictor of both its success and sustainability.

Anyone can pull a book off a shelf and design a change management process and follow a formula. We have learned to be wary of any approach to change that is a simple formula or protocol: they rarely work. It is important to design for sustainable change from the outset – it is not so much a design task for achieving an outcome as it is one that achieves the outcome and this outcome both persists over time and maintains or increases the system's optionality. Designing sustainability in from the very start has become an extremely important factor in our thinking - change simply won't work if it is an after-thought.

No complex change is possible without double-loop learning structured in from the outset and it is the focus on emergence, conversation and engagement in all five key processes that provides for this. Core to this is providing processes that actively seek disconfirming information and foster adaptation to new information and new impacts. We have come to realize that it is not about change management or change leadership or building organizational capacity: it's about all three – but of the three, capacity building is by far the most significant, strategic and required, especially as we are now living in what Gowing & Langdon (2015) describe as unthinkable times.

Finally, we recognize that whilst Taleb has provided us with valuable insight about the value of the "top right space", the unthinkables, it is still early days in the process of translating that insight into more useable presuppositions, strategies and approaches. We look forward over the next few years to work by ourselves and others in taking this next step.

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APPENDIX 1

TWO WAYS OF THINKING AND BEING

The Question	Management (Bottom left-hand corner)	Leadership (Middle ground)
What is the nature of decision-making?	Purely, logical, rational, analytic	Exploratory, experimental process based on intuition and reasoned by analogy
What is core to strategic management	Vision and plans	Dynamic agendas of strategic issues
What is a vision?	A single statement, a picture of a desired future state	Something shared, containing many aspirations, stretching, ambiguous, embodied in on-going conversations involving all
What's our view of the future?	Something you can predict or anticipate and plan for	Essentially unknowable
Where does strategy come from?	Prior intent	Emerges spontaneously from challenge, contradiction, learning and politics
What are we striving for?	Stability, equilibrium	Something with parts that are stable and others on the edge of chaos
How do we get long-term control?	Monitor progress against the plan	You can't! It is an evolving political and social process
How do we keep things contained and stable?	Rules, systems and rational argument	It's not even the question! Build the ownership and support and it will be self-managing
What is top management supposed to do?	Drive and control strategic direction	Create the conditions for complex learning and the action that follows
How should managers behave together?	Highly cohesive and tightly aligned teams operating by consensus or (compliance)	Surface differences, openly test assumptions and beliefs against evidence; real dialogue
How do we drive change?	Use systems, expertise, position and instruction	Engage in emergent relationships and connections to find new solutions together
What questions should we be asking?	What's the problem? How do we fix it?	What's possible? Who cares enough to make it happen?
What do we do with the organization chart?	Be clear about who belongs to what group, how much status and power is attached	Use groups and teams to authentic conversations for building alignment and shared intent
How do we cope with variance?	One size fits all. Write prescriptions for all and many situations	Set broad principles, allow for local variation. Different mental models for different conditions
What does culture look like?	One unitary culture shared by all that we (falsely) assume can be engineered	Organizations, in reality, have many sub-cultures, some competing and contradictory
How much of me do I put on the line?	Relate to others in role, keep boundaries, follow social and political protocols	Relate to each other as whole person, be fully present, open to what may emerge, and care deeply about each other and the work outcomes

APPENDIX 2

STRATEGIC ASSESSMENT ENNEAGRAM

What is the change we seek to implement? To whom? What is the system we seek to change? Where is the focus for change? How deep is it? - (the way things are done, the underlying beliefs, goals, culture and attitudes? What is the bigger context? "The Why" we need to do it? What is missing currently? Where did the change come from? Whose 'baby' is it? What might be the major elements and timing of change? How do we want people to work together on the change? What are the likely business impacts?
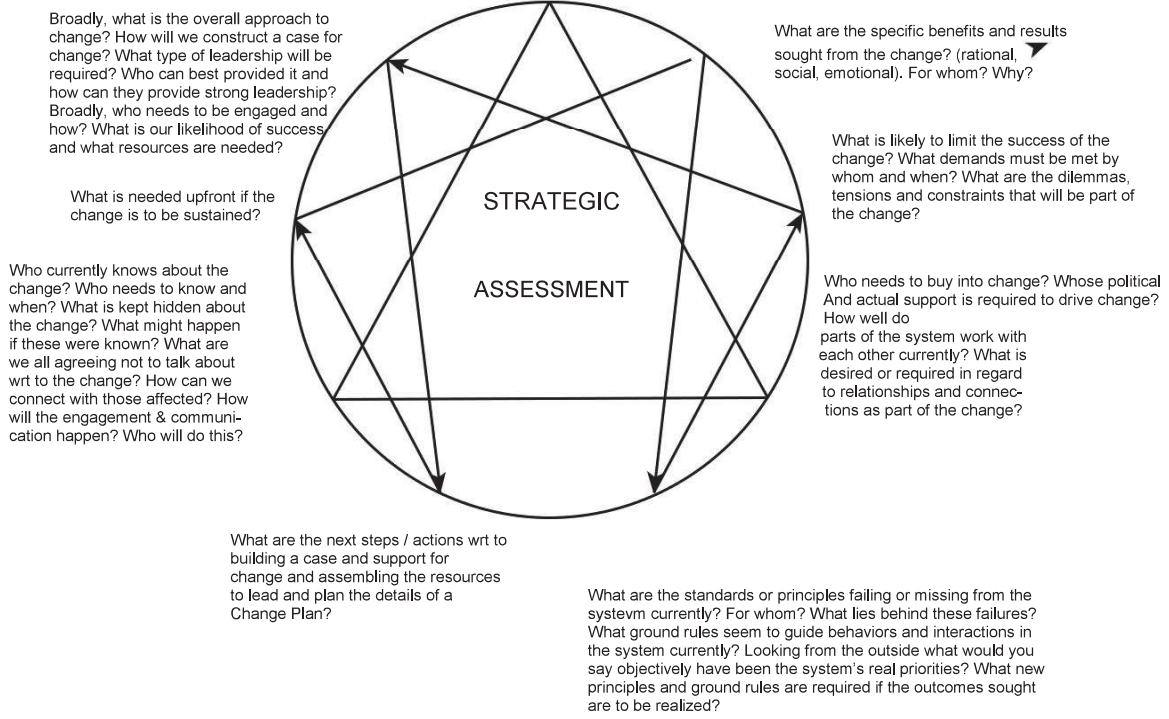
Broadly, what is the overall approach to change? How will we construct a case for change? What type of leadership will be required? Who can best provided it and how can they provide strong leadership? Broadly, who needs to be engaged and how? What is our likelihood of success and what resources are needed?

What is needed upfront if the change is to be sustained?

Who currently knows about the change? Who needs to know and when? What is kept hidden about the change? What might happen if these were known? What are we all agreeing not to talk about wrt to the change? How can we connect with those affected? How will the engagement & communication happen? Who will do this?

STRATEGIC

ASSESSMENT

What are the specific benefits and results sought from the change? (rational, social, emotional). For whom? Why?

What is likely to limit the success of the change? What demands must be met by whom and when? What are the dilemmas, tensions and constraints that will be part of the change?

Who needs to buy into change? Whose political And actual support is required to drive change? How well do parts of the system work with each other currently? What is desired or required in regard to relationships and connections as part of the change?

What are the next steps / actions wrt to building a case and support for change and assembling the resources to lead and plan the details of a Change Plan.

What are the standards or principles failing or missing from the systevm currently? For whom? What lies behind these failures? What ground rules seem to guide behaviors and interactions in the system currently? Looking from the outside what would you say objectively have been the system's real priorities? What new principles and ground rules are required if the outcomes sought are to be realized?