



Management in the 21st Century *Breakthrough thinking*

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"Does complexity theory offer as insight into the future of business leadership and the evolution of management thinking"?

Why is it, that where people are involved, the unexpected is expected?

If it really was possible for leaders and managers to identify cause and effect, surely events would be far more predictable than they are. Human thinking today uses less mysticism and more linear cause and effect thinking. How else might managers manage? Further the seminal work of Peter Senge (Senge 2000) helped business describe and work with the existence of multiple and simultaneously occurring 'cause and effect' relationships.

Is the very idea of 'cause and effect' both a useful management tool AND a limit to management?

Complexity theory offers a radical difference through embracing and harnessing the randomness and uncertainty always present in a human system. It argues that ultimately, all such systems are self-organizing. For example, ideas like 'self directed work teams', 'strategic alignment', the 'learning organization' and 'devolving authority' all rely to some extent on a willingness to trust this idea.



In practical terms, this reduces dependence on command and control, reduces the limitation of prescribed solutions and focuses on creating the right circumstances in which more of the energy and creativity of the organization is allowed to emerge. Expressed another [and yes, more academic] way;

"as feedback networks are pushed from stability to instability they pass through a phase transition in which they are paradoxically both stable and unstable at the same time. At the edge of stability, feedback networks are capable of spontaneously generating endless variety but what form that variety will take is inherently unpredictable and unknowable." (Stacey 1996a)

The result of allowing this to occur, say those who apply complexity theory to leadership, is more – more options, more commitment to those options and more effective working relationships between people.

To what extent can we go with complexity thinking?

A good starting place might be to consider the evolution of thought, beginning with The Black Plague.

Between the 1300s and 1700s the black plague swept much of the world killing a significant proportion (around 1/3rd) of the people on the planet. Many argue that as insights into the potential of medical science eradicated the plague, the role of intuition, mysticism and faith fundamentally changed.

The Age of enlightenment lead thinking to be heavily influenced by reductionist 'cause and affect', linear control style thinking. This pre-occupation has lead us toward the idea that a salvation for everything (including our institutions and societies) can be found in scientism. (Lawrence 1994). As evidence of how far cause and effect salvation for every problem has been taken, consider anti-discrimination laws.

In the US, a fat man successfully sued a restaurant chain for discrimination against fat people because he could not fit his buttocks into their chairs! What was the cause of his butt not fitting? Discrimination of course! Salvation for being fat has been found in the unfair practices of others, with no need for the 'revelation' that being over weight can preclude you from being able to participate in certain aspects of life.

Lessons from the restaurant.



Whilst this may be absurd, it can be fairly argued that an ability to control "cause and effect" is the dominant underpinning of western thinking – whether as obvious as in science, as subtle as in management or as distorted as in anti-discrimination.

From the time of the black plague (less than 500 years or 10% of human evolution) Kant, Hegel, Mead and many others have sought to help us frame, explain or understand the nature of the universe and wrestled with the paradoxes that human behaviour poses to reductionist linear logic.

- Natural Law Teleology (the logical extension of reductionist cause and effect that grew out of the work of Galileo, Bacon, Newton and many others) argues that the whole is determined by the parts.
- Formative Teleology argues that the only effective outcome of the emergent interaction of an acorn with its environment is an oak tree (or no oak tree), suggesting the parts are determined by the whole.

But when we talk about humans, is cause and effect (either natural or formative) applicable given what appears to be an infinite variety of possible people responses to situations. For example, can we assume that each human uses "*...autonomously chosen goals reflecting universal ethical principles. Notions of self organization are absent and both stability and change are human choices*" (Stacey, Griffin, and Shaw 2002) thus preserving the basic 'cause and effect' process in tact.

[As an aside, it could be that the existence of universal ethical principles in the argument can be seen to preserve the role of God]

But if cause and effect were the underpinning process, how then, do we allow for truly novel innovation or creativity?

Here we enter the realm of complexity theory.



Mead (1934) took Hegel further, and saw human systems arising from circular movement in which one discovers meaning through change. That movement results in emergent and dynamic whole with no pre-ordained end state, nor limitation on the parts that might be involved. This idea that the ultimate form is unknown is described as transformative teleology with the significant implication that such an explanation does not presume linear cause and effect. What can also be said is that beyond just transformative teleology – novelty at random, Darwinian evolution gives rise to the concept of Adaptive Teleology. The idea of purpose being the continuing adaptation to more effectively and efficiently operate in the environment.

In summary, complexity theory informs leadership about an acceptance of change as inevitable yet uncertain, events neither able nor requiring predefined outcomes yet. The prospect of transformative and adaptive purpose as underlying the behaviour of a human system inspires confidence in the ability of (complex adaptive) systems to self organize in the creation of innovative solutions and to operate effectively without reliance on the 'control' of pre-ordained cause and effect.

Any substantial embrace of this approach is challenging. It relies on the parts of the system being fully present, authentic and delivering fully to the whole for the best outcome to emerge.

Can managers and organizations in the 21st Century benefit from Complexity Theory?

In August 2003, BOSS magazine reported on 'culture change' programs in its special edition on leadership. In discussing the National Australia Bank example, "Breakthrough", the change workshops were noted as mainly about job and process improvement even though the promotional rhetoric was adamant it is not about productivity. The article saw the *"cultural change phenomenon is increasingly about a battle for the minds of employees,"* despite talk about empowerment and diversity". (Fox 2003b)

As the author observed, *'No matter where the framework was developed, many of the current programs are underpinned by the idea that employees can be changed to conform to the organisation's requirements.'* (Fox 2003b)

Whilst there is strong support for leaders to demonstrate qualities such as honesty, values, integrity and resoluteness, there was extreme caution, even reluctance on how to handle the question of how visible leaders should be on these questions if they could impact their organization. If this means that a leader must mask much of self and play a 'role', then the leader is unable to be 'fully present, authentic and delivering fully to the whole for the best outcome to emerge'. The need to control the outcome is already communicated by the 'role' being *played* by the leader. How then should we answer the question...?

Is an authentic leader someone who effectively leads the company they run, or does the 21st Century demand they also take an active role in leading community debates on a variety of issues? (Fox 2003a)



In an organizational context, it can be argued there is considerable pressure on people to play a role and deny self – even if only by choosing not to comment on an issue or reveal an important and powerful aspect of oneself in the interests of the “organization”, stakeholders or preservation of the present equilibrium. (status quo). Its most tragic manifestation is in the concept of “splitting”. (Krantz and Gilmore 1990b).

That is;

- Separating self from role and playing the ‘role’ of leader in which aspects of the self are significantly denied. John MacFarlane of Westpac may be an example of one amongst many, determined to resist this pressure and maintaining his connection with music [playing in a rock band] and through it, making himself vulnerable and at the same time, real, authentic.
- Separating leadership from management so that leaders are left free to articulate a great vision and ideal, without the encumbrance of having to wrestle with the operational complexities and casualties of achieving that vision.

For example, setting the vision of becoming the lowest cost global producer without participating in the consequences of engaging in child labour. Or for example, determined to leverage the tools of modern technology to become the most productive and responsive of organizations, without participating in the implications of employees working longer and longer hours to the detriment of self and family as they embrace the vision – an issue topical in our national media right now. That is...

‘.. the essential link between new or visionary ideas and the organizational apparatus required to realize them is broken...the driving motivation for unconscious adoption of these neutralizing social defences is to avoid the doubts, uncertainties, and disturbing anxieties which are stimulated in the course of confronting the adaptive requirements of the emergent organizational environments’ (Krantz and Gilmore 1990a)

To summarize, in welcoming the complexity of human dynamics back into organizations, there emerge some very different perspectives.

“At one end of this spectrum there is the dominant voice in organization and management theory, which speaks in the language of design, regularity and control. In this language, managers stand outside the organizational system, which is thought of as an objective, pre-given reality that can be modeled and designed, and they control it.” [Natural, Rationalist and Formative teleology]

“At the other end of the spectrum there are voices from the fringes of organizational theory, complexity sciences, psychology and sociology who are defining a participative perspective. They argue that humans themselves are members of the complex networks that they form and are drawing attention to the impossibility of

standing outside them in order to objectify and model them." (Stacey, Griffin, and Shaw 2002)

It is where these two perspectives attempt to meet – *design, regularity and control versus the participatory perspective* - that leadership of the modern organization finds its greatest opportunity and challenge. Here the different ontological premises about how the world works are attempting to collaborate.

Leadership, substantially informed by the complexity perspective, is very different to the concept of leadership choosing direction and inspiring followership.

For example, in a world that operates on the basis of predictable systems in which people are participants, the idea that "anything could happen" is evidence of system failure rather than participatory creativity and innovation. In a world of unlimited possibilities based only on the spontaneously emergent interaction of objects, thoughts and feelings assembling, "anything happening" is evidence that the world is working as it should.

In economics, for example, this is described in a comparison of Russia's 'big bang' prescription of economic reform designed to deliver a predetermined outcome quickly – a kind of 'shock without therapy'. It is compared with a more complexity informed approach taken by the Chinese who chose to offer small, progressive stimuli to thousands of small, local communities. As a groundswell of response emerged, the leadership continued to respond and adjust in stimulating and supporting (and sometimes draconian) ways on a road to economic transformation whilst sustaining social cohesion. The results in Russia vs China are seen as comparing a system which struggles to reform with one that is determinedly reforming itself. (Jin and Haynes 1997)

At a corporate level, incoming Citibank CEO, John Reed inherited \$13B in non-performing loans the banks economists and managers had managed to build up and enlarge over decades on the basis of predictive models that repeatedly failed over years – usually in the full knowledge that they would do so. Leadership informed by complexity theory may have given more voice to truly novel innovation to engage these issues where an over reliance on prescribed form could not. (Smith 2002)

In the Russia and Citibank context, Smith proffers that linear thinking and command and control lead to significant limitations.

'So, when you insist on your vision, when you try to stick to your blueprint, when you cling with so much determination to control, are you destroying the capacity of your organization for complex learning? When you expel the spare resources from your organization out into the community, have you become more efficient but also so brittle that you cannot survive turbulence? Is there time left for the play that might lead to creativity?' (Stacey 1996b)



My own interpretation is that management and followership are more comfortable bedfellows. Leadership is more aligned with participation. That is, participation offers leadership the best chance of stimulating the better, faster, more effective organizational futures. That is, one of the most helpful applications

of complexity theory to organizations is that it invites a return of the 'self' to the 'role'.

A greater embrace of complexity thinking by leaders is essential if organizations and institutions are going to remain concepts with which people are willing to engage, offer their best and achieve their greatest. If this is not the direction of leadership philosophy, organizations and institutions risk becoming sterile environments of empty rhetoric engaged in the debilitation of society.

If Australians are known for their lack of constraint, resistance to conformity and ignorance of limitations, then embracing more of what complexity theory offers into our leadership thinking may well offer Australian business a great deal more opportunity on the world stage.

In today's turbulent world, where competitors keep changing the rules of the competitive game, it is only the creative who are going to survive for any length of time. It must become the role of leaders in this kind of world not to direct others what to do but to establish the conditions in which their followers can realize their own creativity on a much larger scale than is currently the case. (Stacey 1996b)



"We begin to do so noticing that each [theory or world view] speaks to us with a different voice. If we listen carefully, we can hear each of these different voices whispering gently their truths, and finally, joining in a harmonious chorus that quietly calls us home" (Wilber 2000)

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