

Revolutionising Decision Making -The Art of Visual Facilitation -

By Tony Hodgson

We are caught up in a momentum of change that is heading, like a juggernaut, for a situation which is not turning out to be the change we wish for. In the midst of this momentum, accelerating as it is towards unintended chaos and disruption, it is a constant matter of surprise that other factors that should be changing are not changing at all. A particularly critical factor, the nature and practice of decision-making, is not changing. If the business environment is becoming more complex and out of control then we might predict a surge of new thinking, new methods and especially new support for decision-making, to grapple the momentum and turn it around. What we are actually witnessing is the momentum of old habits masked by overlay of “modern” technology. These minor differences are not those that really count in the new situation. Variations on the methods that created this problem will not provide the solution.

However, in parallel with this and out of the main stream, work has been going on for several decades to anticipate these conditions and actually come up with innovations that match decision thinking power to the new conditions. This work has not entered the mainstream for several reasons. Firstly, we all too easily miss these developments because our mental and emotional filters largely prevent us from seeing them. Secondly, these methods do not match our existing criteria of good decision-making which overlooks the fact that we need new criteria. Thirdly, we demonstrate “skilled incompetence” in finding ways to avoid the consequences of new methods which will upset our clinging to current power structures and arrangements. Overall, we miss the fact that we need a quantum leap in our know-how about decision thinking.

In the popular mind, the results of poor decision-making are too easily blamed by the decision-makers themselves on extenuating circumstances. The public, on the other hand, blame the decision-makers themselves but usually for the wrong reasons. There are so many defensive routines built into our

managerial and political culture that even when we are able to eliminate rampant self-interest and dubious ethics, the remedial possibilities are kept at bay. As a result, a great opportunity for decision improvement is overlooked with all too unfortunate consequences for our human affairs.

What level do crises have to reach before we recognise we can no longer afford to continue ignoring what is needed? The change we are not monitoring is the accelerating trend in the number of poor or even destructive decisions. We are not monitoring the widening gap between intention and action, between values and realities, between propaganda and substance. The consequence is that our human and biological context is deteriorating rapidly. Of course this is not obvious from the perspective of the popular propaganda that is put out. "Everything is fine and progress is assured". But in the real world different things are happening. Quality of life is not equivalent to standard of living.

Decision-making itself can only improve if we improve the decision-maker. Improvement is not just about methods, though they are important. It is also about the skill to apply them. We need to introduce new ways of using our minds to embrace, process and distil current complexity into effective choices. Choices are ineffective when they lead to unintended consequences, the solutions becoming worse than the original problems, and quality of life, economically and socially, is deteriorating rather than improving. The observant reader will already have his or her case book of such observations.

The new quality of decision-making that is emerging is based on decades of research, both theoretical and practical, into **pattern thinking**. This is the capacity of the mind to visualise patterns of great complexity through structured and flexible diagrams and symbols that incorporate verbal language but achieve much more in the mind of the user.

Pattern recognition is crucial to many fields of human activity, for

example in applied science. A geologist seeking evidence of oil or gas is seeking certain patterns in the data. This is increasingly done with visual maps that help this recognition. In sports and games, pattern recognition is crucial whether it be anticipating passes in a ball game, or visualising moves ahead on a chess board. It seems that good decision-makers are also good pattern recognisers. Even better decision-makers recognise emergent patterns in time to seize an opportunity or to avert a catastrophe. The problem is that few have this ability well-developed and further, they do not know how to share it. It is rarely a part of education.

Yet pattern thinking can be developed, shared and put to use through harnessing the power of visualisation and its corresponding expression in visual media. To achieve the needed step in decision effectiveness we need to integrate the creative and intuitive powers of the mind into our decision methods so that they can be brought to bear on complex and difficult issues. This integration requires getting ideas out into the open and placing them in visual structures that can take the thinking further. Visualisation and representation make ideas external and explicit. (See box *Intuition and Systems Thinking*). Effective visual language ties together in a powerful way diagram and word. When the visual medium is capable of being easily revised (such as whiteboards or graphical software) it encourages the shared thinking to evolve and reveal new implications of the decision that is being shaped. When decision thinking is genuinely taking place the formulation is constantly evolving as the insights grow. Hence any mechanistic representation is doomed to freeze thought prematurely. It is not accidental that, say, research scientists will fill blackboards with scribbles with rubbing out and rewriting in order to solve a new problem. Representation must accommodate both structure and development. Pencil on paper is far more powerful than ink on paper because you can rub things out and reshape them as you discover and learn. Equally, there are generic patterns or templates which have enormous evocative power to guide our decision thinking into the right domain and connect with the right level of detail and judgement.

As a practice, this form of pattern decision thinking representation is called **visual array**. An array has the connotation of both orderly arrangement and impressive or vivid display. This term implies that

interaction guided by a designed visual medium, capable of representing and re-representing in real time expressed thoughts, enables new understanding to emerge or new knowledge to be created. This is true as personal reflection or “self-conversation” or as a medium for collaborative creation. On the basis of insights generated in this way, better decisions can be made. Indeed, choice implies selection amongst several options and often we have not been imaginative and extensive enough in generating a range of options. The use of visual arrays helps extend the field of options as well as improve clarity over the choices.

From one perspective, using visual arrays is nothing new. Most of us, at some time or another, have sketched or “doodled” our thoughts on a pad of paper or a flip chart. Some people and organisations have partly adopted techniques like mind mapping, cognitive mapping, strategy maps, knowledge maps, storyboards and graphical software as facilities essential for shared work. However, these are usually constrained to a project level rather than strategic decision-making. It is true that some groups within organisations have taken up charts, whiteboards and sticky notes on walls. Places of formal decision-making, such as management meeting rooms, are not designed this way. Instead, they carry the deeply ingrained culture of hierarchy, presentational domination and minimal participation of the “presented to”. Generally our personal and organisational cultures are bereft of the knowledge, skill and facilities to encourage development of the real power of visual array.

Modern media have taken presentation to great heights from book design to software to blockbuster movies. Board rooms echo with the never ending schedule of presentations. But they have failed to appreciate the different conditions that participative representation requires. These requirements are in how people are educated to think and communicate and how facilities and tools need to be designed to be supportive of visual thinking with decision frameworks. The result is that we remain trapped in the “variations on the theme of analysis” and do not develop our capacity for synthesis and rapid mastering of complexity.

So what practical steps can we take to move these currently peripheral decision methods and skills into the mainstream? We have to begin by learning about them ourselves.

How you see and react to situations shapes your decisions. This is our subjective habit or judgement. Many decisions are made this way. Research into decision-making shows that this process is subject to inherent distortion. The mind of every manager, every human being, is subject to mental, emotional and physical filters. Our perceptions and responses are selective. Sometimes the selectivity is due to lack of experience and knowledge. Sometimes it is due to wanting things our way more than wanting the best result. Sometimes it is determined by base instincts of fear or greed.

Since the development of management science, a great many methods have been developed to compensate for these factors through analysis, measurement and testing. Managers are generally well schooled these days in **quantitative techniques** in finance, investment appraisal and project management logic. From these development things have improved.

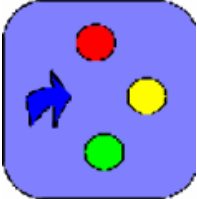
However, we also see that our decision-making suffers from a number of unavoidable and undesirable results:



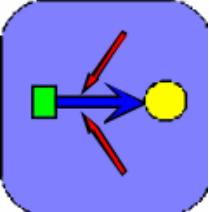
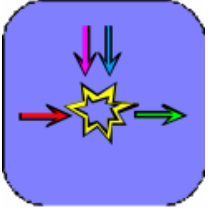
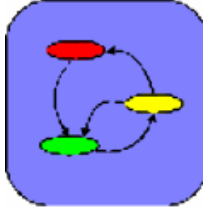
- not following the expected path
- consequences that were supposed to be avoided
- negative backlash after things seemed to be going well
- well worked decisions being nevertheless not accepted by stakeholders
- too much contention and conflict to resolve into coherent action
- plain resistance and conflict

A further step which has been developed but is only infrequently taken up is the application of new **qualitative techniques**.

Qualitative techniques depend on structures of pattern thinking which convey an intellectual discipline in a way that is open to perception, intuition and the combination of multiple perspectives. The techniques have to match the essence of the specific decision challenge. In the table below six types of challenge are identified. They can occur at the strategic level and the tactical level. The graphical symbols for each of the six are short hand language to indicate something of the pattern of thinking required to advance the integrity of the decision that is being shaped and prepared. Qualitative techniques demand an art as well as science. They require practice skills.

In the table below a simple set of visual symbols is introduced with some indication of the questions, the decision support provided and typical applications. The point of the symbol is to emphasise that visual methods need visual language to describe. A narrative describing a picture is not as effective as seeing the picture.

SOME TYPES OF VISUAL ARRAY WHICH SUPPORT BETTER DECISION THINKING				
	DECISION TYPE AND ITS VISUAL PATTERNING	decision question	the support the type of visual array brings	examples of typical application areas
I.	 <p><i>making choices</i></p>	How do we develop the best strategy where there are several interacting decision areas?	enables different stakeholders in the decision to home in on a highest common factor strategic choice	<ul style="list-style-type: none"> • creating new regulatory policies • developing cross-functional strategies

2.	 <p><i>dealing with complexity</i></p>	<p>How do we get a clearer picture of a mass and mess of complexity that has to be dealt with?</p>	<p>considering all factors from multiple perspectives and seeing how they all begin to fit together as a whole</p>	<ul style="list-style-type: none"> • getting a grip on complex crises • assembling strategic issues into a working agenda
3.	 <p><i>confronting dilemmas</i></p>	<p>How to resolve polarised dilemmas rather than getting destructively stuck on one of the horns or caught in ineffective compromise?</p>	<p>permits both horns of the dilemma to be fully mapped so that generative thinking can be applied to creating a resolution</p>	<ul style="list-style-type: none"> • developing strategies which transcend typical conflicts • bridging gaps between opposed interest groups
4.	 <p><i>exceptional performance</i></p>	<p>How to achieve stretch goals through becoming clear about the varieties of constraints and how to overcome them?</p>	<p>combines both visionary aspiration and down to earth practicality in determining an effective way to get from A to B</p>	<ul style="list-style-type: none"> • setting competitive goals and developing action plans to achieve them • facilitating breakthroughs
5.	 <p><i>anticipating the future</i></p>	<p>How to read future trends and turning points and create anticipatory moves able to adapt to survive and thrive?</p>	<p>sets a frame for generative thinking where unusual combinations of strategy and circumstances create new options and recognition of robust options</p>	<ul style="list-style-type: none"> • taking existing strategies and “future proofing” them • stimulating the development of new strategies
6.	 <p><i>evaluating risk</i></p>	<p>How to understand causal loops and feedback which if ignored will lead to unintended consequences and put enterprises at risk?</p>	<p>shows how factors in a situation are connected together in webs of cause and effect where effects are also causes and behaviour over time is not what we expect</p>	<ul style="list-style-type: none"> • understanding complex adaptive systems • simulating possible consequences before the real thing

Each method is underpinned by a researched intellectual content which must be mastered. Each has a flexible diagramming technique which has specific visual tools that need to be second nature to use as shared thinking unfolds. Each method has a combination of facilitation skills which, as well as the usual skills in psychology and group dynamics, requires certain questioning arts and cognitive skills in the facilitator. These are hard won but, in combination, their effectiveness does indeed give us a quantum leap in decision power.

None of these are taught in MBAs or management development in a way that can create a community of practice able to carry them through with confidence and effectiveness. Attempts to set up education in these areas meets the resistance of academic or operational stove pipes, since the skills and knowledge are cross discipline and unusual. However, the combination is recognisable to a growing number of practitioners in strategy work and organisational change who are wrestling with developing better ways to meet today's challenges. Let us hope that they are brought from the periphery into the main stream before all interest in improving decision-making for a better future evaporates.

THE EXAMPLE OF INTUITION AND SYSTEMS THINKING

- Two Levels in Communication

Systems thinking is a general area that includes, among others, such disciplines as system dynamics, soft systems modelling and viable systems design. Although each has a certain intellectual and proven rigour, they each also give scope to a wider play of intelligent intuition. The relationship between disciplines, their visual representations and intuition is a field that needs extensive research and deeper practice if we are to improve our anticipation of problems of deviation and backlash in the implementation of policies and strategies.

We can approach this by considering three levels of mental working that are involved in decision thinking.

Level 1 - information holding (memory); this can be in isolated bits or in established patterns like well-worn categories.

Level 2 - pattern thinking (meta-memory); these are patterns related more to understanding than “knowledge about”. They are based on some intellectual discipline or method and usually incorporate some problem solving effectiveness which links knowing and doing.

Level 3 - intuitive thinking (trans-memory); this is a direct encounter between intelligence as consciousness throwing direct light from beyond knowledge and patterns. It appears to come from within the mind rather than through external input. Hence words such as *in-tuition*, *in-sight*, *in-spiration*, *in-timation*, *in-dication*, *in-stinctive*.

For the human system to function well there has to be a clear linkage or resonance between the levels. For example, a physicist needs to be able to link experimental information (level 1) with intuition of a hypothesis (level 3) through conceptual thinking (level 2) which may include mathematical patterning e.g. string theory. Equally a poet needs to link vocabulary (level 1) with inspiration of a meaning perception through patterning of word sequence which is the art of poetic representation.

A physicist may have poetic feelings when he looks at a brilliant sunset but will not create the poem. Equally, the poet may wonder about the cosmic laws beyond the

play of light that inspired a poem but be incapable of grasping the physics.

This leads us to the idea that the potential breadth of intelligent understanding is vast compared to the bandwidth of any given mind. Also the idea that often people's intuition senses a wider spectrum than their means of expression and action.

So it follows that :

- a. Knowledge without patterning is ineffectual. Patterning and practice go together.
- b. Intuition without patterning is also ineffectual because it lacks a vehicle (tensor maths is no good for poetry and words can't get us to the physics).
- c. Systems thinking is a corpus of pattern thinking that enables additional domains of knowledge to be harnessed and gives a vehicle of expression to intuitions that otherwise appear as illogical or unnecessary.

Most of the pattern thinking that we are educated in is analytical in form – it breaks things up into parts. Many of our most pressing challenges are interlinked and systemic in nature. We intuit that and can often act outside the boundaries of analysis and “get it right”. This is like depending on a candle when we could establish a search light. The technology of thinking (or cognition) is still in its infancy in terms of human evolution potential.

The consequence is that application of systems thinking offers:

- a. Avoidance of costly errors where analysis overlooks interactive consequences.
- b. A form of representation which allows more extensive expression and recognition of actions and ideas outside the conventional rational frame by introducing a parallel systemic rationality.
- c. Improved decision-making by providing a common language through which many intuitive things about complex situations can be expressed giving scope to gain the benefit of “two heads are better than one”.