

Abstract

What Might "Decision Making" Become in a More Complex World? (Rafael Ramírez, Jerry Ravetz and Trudi Lang www.insis.ox.ac.uk)

Anthropologists often refer to "rationality" as a key myth of modern society (Morgan 2006). Rationality suggests decisions are based on or in accordance with reason or logic (Oxford English Dictionary). Addressing increased complexity through rationality would require ever larger data sets, ever more sophisticated models; ever improved probabilities to enhance (or at least maintain) accuracy of perception; all enabling 'appropriate' decisions to reveal themselves (Grint 2005). But if rationality as a myth (even if highly valued by society) is taken seriously, it is worthwhile questioning its ongoing pertinence and even viability within the uncertainty and ambiguity of complex decision-making. For instance Ravetz & Funtowicz argue 'facts' are themselves uncertain and science must become postnormal in such conditions (<http://www.nusap.net/sections.php?op=viewarticle&artid=13>).

Complex contexts have been depicted as ill-structured messes (Ackoff, 1981) where directions for action are unclear and features identified as 'problems' appear 'wicked' (Rittel & Weber, 1973) and thus 'unsolvable'. Ackoff suggests that design, more than decision-making, is what is called for in such situations. Complex contexts may also include "unique, non-probabilistic events" (van der Heijden et al 2010) and unpredictable bifurcations (Bernard, 2008).

With more complexity it is worth considering how dropping the rationality myth from decision-making to better embrace uncertainty and ambiguity might work. We suggest this could imply deciding through plausibility rather than accuracy (or probability), as accuracy has been shown empirically to not be a prerequisite for effective action (Menzias and Starbuck 2003). Deciding with plausibility would put greater emphasis on conversation and interpretation (Sutcliffe & Weber 2003); asking questions more than seeking solutions (Grint 2005); and attending less to 'solvable' problems and more to seemingly 'unsolvable' ones (Ravetz 2009). With plausibility decision-making, sense-making would be situated in loosely coupled rather than tightly coupled systems (Orton & Weick 1990) to better pool insights. It would extend mindfulness (Maturana & Varela, 1987) beyond the brain to also include 'gut feelings'; neurogastroenterology (Gershon 1998) suggests brain emotional states are mirrored in the gut (c.f. Kings Psychology Network). As in complex settings, change would be seen as the norm (Selsky & McCann 2008) and 'decision-making' would no longer be episodic and event-based, but instead be an iterative design inquiry where ignorance and knowledge co-evolve (Hatchuel & Weil, 2009) and are tested and contested with scenarios.

References:

Ackoff, R. 1981. The Art & Science of Mess Management. INTERFACES, 11(1): 20-26.

Bernard, M. 2008. New forms of coherence for the social engagement of the social scientist: the theory

and facilitation of organizational change from the perspective of the Emery-Trist systems paradigm and the Ilya Prigogine school of thought. In R. Ramirez, J. Selsky and K. van der Heijden (eds). *Business Planning in Turbulent Times: new methods for applying scenarios*. Earthscan: London.

Gershon, M. 1998. *The Second Brain: the scientific basis of gut instinct and a groundbreaking new understanding of nervous disorders of the stomach and intestine*, Harper Collins: New York.

Grint, K. 2005. Problems, problems, problems: the social construction of leadership, *Human Relations*, 58(11): 1467-1494.

Hatchuel, A. & Weil, B. 2009. C-K design theory: an advanced formulation. *Research in Engineering Design* Volume 19, Number 4 / January, pp. 181-192

Kings Psychology Network. The Enteric Nervous System: the brain in the gut, <http://www.psyking.net/id36.htm>

Maturana R. H and Varela, F. 1987. *The Tree of Knowledge: the biological roots of human understanding*. Sambhala Publications: Boston.

Menzias, J , and Starbuck, W, 2003. Studying the accuracy of managers' perceptions: a research odyssey, *British Journal of Management*, 14:3 -17.

Morgan, G. 2006. *Images of Organization: updated*. SAGE Publications: Thousand Oaks.

Orton. D and Weick, K. 1990. Loosely coupled systems: a reconceptualization, *Academy of Management Review*, 15(2): 203-223.

Ravetz, J. 2009. The mathematics of delusion – or – will science destroy civilization?, Work in progress presentation, James Martin Institute, Oxford, 23 January.

Rittel, H. and Webber, M. 1973. Dilemmas in a general theory of planning, *Policy Sciences*, 4:55-169.

Selsky, J. and Mc Cann, J. 2008. Managing disruptive change and turbulence through continuous change thinking and scenarios. In R. Ramirez, J. Selsky and K. van der Heijden (eds). *Business Planning in Turbulent Times: new methods for applying scenarios*. Earthscan: London.

Sutcliffe, K. and Weber, K. 2003. The high cost of accurate knowledge, *Harvard Business Review*, 81(5): 74-82.

Van der Heijden, K., Ramirez, R., Selsky, J. and Wilkinson, A. 2010. Turbulence, business planning and the unfolding financial crisis. In R. Ramirez, J. Selsky and K. van der Heijden (eds). *Business Planning in Turbulent Times: new methods for applying scenarios*. 2nd edition. Earthscan: London.