Margaret J. Wheatley – *Leadership and the New Science: Discovering Order in a Chaotic World*

(San Francisco: Berrett-Koehler Publishers, Inc., 2006), 218 pp.
ISBN: 978-1576753446. US$20.95

Eric Winkel *International Institute of Advanced Islamic Studies (IAIS) Malaysia*

Writing from wide experience working with organisations as a management consultant, Margaret Wheatley has seen the necessity for integrating the new science with organisational management. The new science of quantum physics, fractals, and chaos theory creates a new nonlinear world view. The old, linear view is suited only for the factory model, where outputs increase in a linear fashion according to the inputs. But the real world is nonlinear: think about learning. We study and study and suddenly, we understand. Wheatley describes the conventional command-and-control management style, where we think the company is a black box with inputs on the left and outputs on the right. She talks about laboriously crafted organisational charts, when the real communication of the company takes place around the water cooler. She shows us how organisations flounder and stagnate when they are seen as machines in a Newtonian world, the old mechanistic view.

But in the new science, the organisation that works is self-organising, not top-down and hierarchical. Her stories from Hurricane Katrina, which are replayed universally from the tsunami of 2005 to Haiti more recently, demonstrates the efficacy of the new science of process, relationship, spontaneous innovation, and connecting. Her description of a meeting that FEMA (the Federal Emergency Management Agency) had with eager firemen and rescue crews during Hurricane Katrina shows us how bureaucracy and rigid institutions get in the way of the real work these informal groups were ready to do.

The consequence of this dependence on the old way of viewing reality is a pervasive fear. Wheatley explains:

> In modern Western thought, I believe one source is our fuzzy understanding of concepts that gained strength from seventeenth-century science. Three centuries ago, when the world was imagined as an exquisite machine set in motion by God – a closed system with a watchmaker father who then left the shop – the concept of entropy entered our collective consciousness. Machines wear down; they eventually stop […]. By sheer force of will, because we are the planet's intelligence, we will make the world work. We will resist death […]. What a fearful posture this has been! (p. 19)

This belief that only our human will can fight entropy and must support the entire planet by sheer human effort is predicated on the mechanistic view of science. Perhaps it is reflected in modern Western civilisation, when people speak of plans

and intentions: they say "I will" as if they determine the future. In other civilisations, the phrases 'God willing' and '*inshā' Allāh*' indicate acceptance of a non-material world 'in process'.

We are used to thinking of people as cogs in machines or billiard balls bouncing around. The new science, however, points to the "field" as important. It is the "culture" of an institution, and we can recognise it, often unconsciously, as soon as we enter the building. Wheatley says:

> To learn what's in the field, look at what people are doing. They have picked up the messages, discerned what is truly valued, and then shaped their behavior accordingly [...]. If vision is a field, think about what we could do differently to use its formative influence. We would start by recognizing that in creating a vision, we are creating a power, not a place, an influence, not a destination. (p. 55)

During the discussion of torture during the Bush administration, some military officers made the point that if there is a clear message from the top that torture is wrong, torture will not happen. They were tacitly agreeing that there was a message from the top to torture. In stores and in schools, when we enter we know, consciously or not, what message is coming from leadership. Is this a school where rules are more important than people? Is this a restaurant where they will replace your order cheerfully to keep the customer happy? Wheatley is saying that there is real science going on here, with the name 'field', beyond anecdote and intuition.

The applications of her research into organisations connects to many different fields of study, including politics. She contrasts the old way with the new:

> We believe that in order to maintain ourselves and protect our individual freedom, we must defend ourselves from external forces. We tend to think that isolation, secrecy, and strong boundaries are the best way to preserve individuality. But this self-organizing world teaches that boundaries not only create distinctions; they are also places for communication and exchange. Because system members engage in continual exchanges among themselves and with their environment, the system develops greater freedom from its environment. (p. 85)

The importance of civil society organisations shows itself in the new world. Wheatley describes participation as the basic process of life, where authoritarian approaches are inappropriate responses from a mechanistic worldview.

> I wonder how we can continue to support authoritarian approaches. Can we resist inviting people to participate? Can we survive as command and control leaders? Can we hope that participation goes away? Not until life changes its fundamental processes. (p. 163)

And yet leaders and managers want to lead in the old way, and managers want to control and manage change. They do so assuming that "most people are dull, not

creative, that people need to be bossed around, that new skills develop only through training. People are motivated using fear and rewards; internal motivators such as compassion and generosity are discounted. These beliefs have created a world filled with disengaged workers who behave like robots, struggling in organizations that become more chaotic and ungovernable over time" (p. 171).

Her ideas about the new science as it relates to identity is especially interesting for Malaysia. The new science suggests that organisms gain robust identities as they interact more and more at the boundaries with the outside environment. This means that increased interaction leads to increased robustness of identity. It would be interesting to use the new science to understand issues of cultural identity in Malaysia. Cultural defence, for example, would not mean isolation and fragmentation. It would mean increasing interactions with others. For individuals, we know from child development theories that identity is formed and strengthened by interaction: we are asking ourselves how we are the same and different from our parents, from siblings, from neighbours, from strangers. All of these many, many interactions form an identity.

> As it does with defence, cultural or national, the new science touches all areas. The new way of fractals, emergence, and chaos that she describes is the real world; it is "how life works. We can learn this from new science, or we can learn it from what happens every day somewhere in the real world." (p. 179)

We need to start applying this new science to our thinking, for issues in Malaysia and in the wider Muslim world.