

Brown, V.A., Harris, J.A. and Russell, J.Y. (2010) **Tackling wicked problems through the transdisciplinary imagination** Earthscan, London, 312pp.

Book review for *ECOS*, Vol. 31, Issue 3/4

The political orthodoxy in liberal Western democracies is that investment in the STEM disciplines - science, technology, engineering and maths – provides the most assured basis for future economic vibrancy and social well-being. Innovation and problem-solving using rational scientific knowledge is the key. For example, the valorisation of these STEM disciplines is implicit in the EU's drive to develop a 'knowledge economy'. C P Snow's 'two cultures' thesis from 1959 offers the classic exposition of this ideology – it is the sciences which will solve mankind's problems; the humanities have had their day – but the thinking has deep roots traceable back to Bacon and Descartes in the 17th century.

Tackling Wicked Problems Through the Transdisciplinary Imagination provides a welcome and incisive critique of this position, offered from a uniquely Australian perspective. The authors challenge, both philosophically and pragmatically, the presumed hierarchy of disciplines for guaranteeing human security and problem-solving. The philosophical challenge exploits a Kuhnian view of science, a Habermasian view of rational deliberation and embraces Feyerabend's and Midgely's plurality of knowledges: all knowledge must be viewed as partial, plural and provisional. Jacqueline Russell's chapter delineates succinctly the organising paradigm inspiring the book: an open and critical transdisciplinary approach to inquiry. The pragmatic challenge is taken up through 15 short case studies organised around five modes of transdisciplinary inquiry: specialist, community-based, organisational, individual-focused and holistic.

Tackling Wicked Problems emerged through a series of sustained informal seminars and deliberations conducted under the auspices of the Human Ecology Forum at the Australian National University, Canberra. Unsurprisingly, the 23 authors are eclectic in their affiliations – anthropologists, ecologists, sociologists, psychologists, educationalists, epidemiologists – but all demonstrate a shared commitment to this form of inquiry. They also share an ethical commitment to ecological sustainability and social justice, the explicit normative goals which animate the overall project.

There are few books which mount such an audacious challenge – one that is both theoretically and practically informed - to the presumptions of the positivism underpinning the STEM ideology. And yet the century we are now living in needs new paradigms for comprehending the indivisible reality of human experience and materiality, a new *scientia* for a new era. It also needs new practices of deploying knowledge for practical benefit and which overthrow the Cartesian divide between facts and values. Materialism, reductionism and objectification have had their day – and have failed us.

The people of this planet face uncharted times ahead. Yet it is abundantly clear that the STEM disciplines by themselves – without a transdisciplinary imagination to temper the hubris and overdetermination which they seemingly cannot shake off – are hopelessly inadequate for tackling problems such as climate change, biodiversity loss and obesity. *Tackling Wicked Problems* takes a bold path to show that there are different ways - better and fairer ways which remain more faithful to embodied reality - of making knowledge work for us.

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19 October 2010.