

# Living with capitalism

Similar processes affect cells and businesses. But what price sustainability?

**The Hidden Connections: Integrating the Biological, Cognitive, and Social Dimensions of Life into a Science of Sustainability/The Hidden Connections: A Science for Sustainable Living**

by Fritjof Capra  
*Doubleday/HarperCollins: 2002. 288 pp.  
 \$24.95, £20*

**Crispin Tickell**

Not for the first time, Fritjof Capra makes a broad sweep of human knowledge and experience, ranging here from a definition of life (or rather the “defining characteristics of living systems”) to global capitalism as we now know it. It is an exciting journey by way of biology, sociology, market economics and ecology, and arrives at conclusions that call for radical change in human society.

He draws throughout on certain principles that are as applicable to the living cells of the smallest organisms as they are to business corporations and political structures. This indeed is consilience on the grandest scale. At its root are ideas about self-generating networks among elements in a system, nonlinear evolution, which often produces the unexpected, and the emergence of new forms of order out of apparent instability.

From all this, Capra develops the idea that “the interactions of a living system with its environment are cognitive interactions, and the process of living itself is a process of cognition”. Here he uses cognition in the sense of the ability to react to perturbations in the environment. Thus “mind and matter no longer appear to belong to two separate categories but can be seen as representing two complementary aspects of the phenomenon of life... At all levels of life, beginning with the simplest cell, mind and matter, process and structure, are inseparably connected.” He goes on to show that throughout the history of life, the planetary web has expanded through mutation, exchange of genes and symbiosis, producing forms of life of ever increasing complexity and diversity. This embraces elements of Gaia theory.

So much for the biology. Its application to human society is inevitably incomplete and somewhat awkward, but networking, nonlinear change, complexity and the emergence of specific cultural identities are evident wherever we look. The same can be said to some degree about commercial organizations and their management. But here the all-too-human search for top-down design can militate against natural forces. Managers like algorithms for success even if they do not



Global village: the spread of capitalism has led China to join the World Trade Organization (WTO).

exist. For many people, machines are a better model than living organisms. No wonder then that so many modern organizations, and even capitalism itself, are under strain.

In the second part of his book, Capra analyses the many shortcomings of global capitalism, using biotechnology, in particular the development of genetically modified organisms, as an example. He argues that globalization in its present form is the result of the computer revolution and the introduction of information technology into almost all aspects of human affairs. This is machine philosophy and technology in the extreme. It occurs with the increasing exploitation of the Earth’s resources and corresponding damage to the environment, and can be seen most clearly in the shuttling back and forth of money worldwide at unimaginable speed. It is beyond the control of national governments, whose own power is declining, and even of most corporations and financial institutions. The result is not the sort of evolution associated with living organisms, but rather social alienation, increasing division between rich and poor, and cumulative damage to human values and cultural diversity.

What, then, is the answer? Inevitably, this is the weakest part of the book. It has long been obvious that the kind of society that has developed with industrialization is unus-

tainable in its present form, and cannot be extended as it is to the rest of the world. An eloquent statement on this point was made in the Amsterdam Declaration on Global Change, published after a conference attended by over 1,000 scientists from the great global research programmes in July 2001. In short, we know what most of the problems are, and we probably know most of the answers, including the application of different technologies and the creation of new and more appropriate international institutions. The difficulty is how to get from here to there. Radical change may already be on its way, but it remains mostly on the fringes. We still measure things wrongly, and here economists have a big responsibility. Unfortunately we may need a catastrophe or two to bring about the fundamental changes that are required.

This book is not easy reading. Sometimes the case is obscured by jargon and unnecessary academic defensiveness. Many of the ideas could have been more simply and economically expressed. But it is a rich resource that should be widely drawn upon. By establishing the connections in its title, which are indeed too often hidden, the author has courageously put together a real tract for our times. ■

*Crispin Tickell is at Abington Old Barn, Abington, Cirencester GL7 5NU, UK.*

AP PHOTO/STR