

Long abstract of proposal for an open-ended workshop/discussion around the topic of

**How are we to understand and map the network of social forces behind the autopoietic processes which appear to be heading our species toward extinction, carrying the planet as we know it with us - and how to design a more effective socio-cybernetic system for societal management?**

at the meeting of Research Committee 51 (Socio-Cybernetics)  
of the International Sociological Association

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It is easy to list some of the main processes heading our species to extinction, carrying the planet as we know it with us. These include:

- The population explosion.
- The excessive demands made by homo-sapiens on the resources of the earth.
- Neglect of “overshoot” when assessing resource demands.
- The destruction of the soils, seas, and atmosphere.
- The polarisation of wealth within and between societies and their implications for social stability.
- The likelihood of a nuclear winter as nations seek to impose ideologies (including religion) on others by force or fight over diminishing supplies of oil, food, water, and other resources.

It is also easy to make a list of recommendations for things governments might do to stem the tide.

However, these processes are rarely viewed as an autopoietic system involving multiple, mutually-reinforcing, feedback loops which negate and over-ride specific, if well-intentioned, interventions.

Occasionally, someone does draw attention to the fact that the interaction between autopoietic sub systems (such as a species of animals) and the wider systems in which they are embedded (eg ecological settings) regularly results in sub systems coming up against

wider system constraints which curtail the development of, or even eliminate, the sub systems (eg animals or plants).

Many years ago, as a result of 40 years' research into the workings of the educational system, we found ourselves trying to map the social forces which lead to the continuous development of an "educational" system which, to all intents and purposes, does the opposite of what most people ... including most philosophers ... think it should be doing<sup>1</sup>.

This network of mutually reinforcing forces has two components (sub-networks) which are typically overlooked.

1. A network which stems from the fact that what happens in the "educational" system is not mainly determined by the *educational* aspirations of parents, teachers, pupils, employers or anyone else but by the *sociological* functions which the system performs for society<sup>2</sup>.

2. A network of widely held beliefs about the processes and procedures – viz the forms of democracy and bureaucracy – viz the nature of the *governance* process – viz the socio-cybernetic system<sup>3</sup> – that it is appropriate to adopt when seeking to manage public provision.

Having generated a sketch-map of the socio-cybernetic forces that seemed relevant, we spent 5 years trying to generate an alternative system that *would* deliver the desired benefits.

We failed.

But, as a result of an argument that developed at a conference, we had the bright idea of changing the contents of the boxes in our map<sup>4</sup>. We thought we were home and dry.

What emerged was, indeed, worthwhile and productive of valuable insights.

But it has taken us another 15 years to realise that that map does *not* answer our question.

What we came up with was not a map of how to harness those very same social forces to push us where we wanted to get to (instead of crashing us into the rocks) but something more like a map of the forces controlling the movement of the planets in which descriptions of what each of the planets *might* do had been substituted for what they *did* do. Put another way, our map was in no way the equivalent of a theoretically-based diagram of how to harness the previously invisible forces of the wind and the waves to enable sailing boats to sail into the wind.

It has long been obvious to very many people that many of the central problems facing modern society stem from the adoption of centralised "command and control" management systems coupled with a sociological "need" to generate useless work to legitimise the divisions which compel people to participate in activities they do not like and know to be wrong.

Several authors, eg Deming<sup>5</sup>, have illustrated how these hierarchical structures can be replaced by more "organic" arrangements within organisations. But, by and large, these authors end up bemoaning the failure of those arrangements to spread more widely.

I myself have argued that, to effect the desired changes, it is essential to understand, map, and measure the social forces controlling the operation of society. Then, and only then, we would be able to find ways of harnessing these socio-cybernetic forces in a manner analogous to the way in which it became possible to map, measure, and harness the previously invisible forces acting on sailing boats so that their captains could reach their desired destinations.

Unfortunately, enthusiasm for this line of development has been seriously dampened by the (re)publication of Bookchin's *Ecology of Freedom: The emergence and dissolution of hierarchy*<sup>6,7</sup>.

Bookchin first demonstrates that so-called "primitive" societies had (and have) characteristics typical of organisms.

That is to say, these societies function in a manner analogous to the way in which the human body operates.

The cells of the body are differentiated. But that differentiation can also, to a remarkable degree, be reversed if the body as a whole requires it. Coordination between the cells is not determined hierarchically but through a network of feedback processes. The behaviour of the cells is not mainly determined by their chromosomes but by the role they play in the (developing) organism (autopoietic sub system).

However, it would appear that, at every stage in societal "development", this organic, network based, structure has been replaced by a more and more hierarchical structure .. which happens to involve the invention of more and more useless work. This is not merely a mechanism whereby elites can exert control but also a sui-generous mechanism for compelling people to participate in the system.

This process has proceeded at an exponentially increasing rate since time immemorial, despite alarm calls from endless acute observers of society.

What hope is there, then, that action-researchers like Deming will be able to stem the flow?

But where is socio-cybernetics in all this? Why is it that this destructive process proceeds inexorably in the same direction. No single factor explanation ... such as "Humans are, by nature, greedy" will do. Remarkably and disturbingly, this destructive process has itself many of the features possessed by organic processes ... it appears to be an endlessly self-producing and self-extending autopoietic process.

What are the forces involved in this? How are they to be conceptualised, mapped, measured and harnessed?

Unless we can answer that question and contribute to the design of a better socio-cybernetic system for the management of society we are implicitly contributing to the most unethical process mankind has ever known.

## NOTES

1. see [http://www.eyeesociety.co.uk/resources/Figure%201%20\(formerly%2023.1\)%20rev.pdf](http://www.eyeesociety.co.uk/resources/Figure%201%20(formerly%2023.1)%20rev.pdf) which is reproduced from Raven, J. (1994). *Managing Education for Effective Schooling: The Most Important Problem Is to Come to Terms with Values*. Unionville, New York: Trillium Press. [www.rfwp.com](http://www.rfwp.com) (also available from The Competency Motivation Project at 30 Great King Street, Edinburgh, EH3 6QH.)
2. It is important to note that these sociological functions or “purposes” can only be discerned *after* the system itself has been mapped.
3. Readers may find it useful to be reminded that *cybernetics* is the study of the guidance and control processes that regulate the behaviour of animals and machines .... and the design of better ones. It follows that *socio cybernetics* must be understood as having centrally to do with studying and mapping the invisible social forces which contribute to the reproduction and, more importantly, continuous development, or production, of these autopoietic governance systems ... and the design of better ones.
4. [http://www.eyeesociety.co.uk/resources/Figure%203%20\(formerly%20Diagram%2020.5\).pdf](http://www.eyeesociety.co.uk/resources/Figure%203%20(formerly%20Diagram%2020.5).pdf)
5. Deming, W. E. (1993). *The New Economics for Industry, Government, and Education*. Cambridge, MA: Massachusetts Institute of Technology.
6. Bookchin, M. (1991/2005). *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*. Oakland, CA: AK Press.
7. My summary and critique: *The Progressive Emergence of Hierarchy, Domination, and Centralisation (and their amelioration): The Gospel According to Murray Bookchin (together with some critical comments and attempts at reframing)* can be found at <http://www.eyeesociety.co.uk/resources/Bookchin.pdf>