

Outline of a proposed paper for the Deming Learning Network meeting on
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Toward a Sustainable Society Two Components in the Way Forward.

John Raven

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The results of some 50 years research into the functioning of the educational system will first be summarised and presented as a case study.

The public in general is well aware that there is something seriously wrong with the educational system.

The first step in this paper will be to show not just how serious is this failure but also that none of the “obvious” explanations (or proposed cures) suffice.

Among the more deep-rooted causes of the problem are the following:

1. There is little formal understanding of how to nurture high level competencies like initiative and self-confidence ... never mind such things the ability to understand the way organisations work and take the initiative to intervene in them.
2. There is little formal understanding how to assess such qualities. As a result, neither pupils nor teachers can get credit for having nurtured or developed them in the course of evaluations.
3. A range of problems stemming from the *diversity* of pupils’ talents and their value-laden nature.
4. Problems stemming from the *sociological* functions performed by the so-called educational system. In the end, these almost entirely deflect the system from its manifest goals. If one is to improve the system it will be necessary to study social (socio-cybernetic) forces of this sort and find ways of intervening in, or harnessing, them.
5. Problems stemming from dysfunctional beliefs about how the system is to be managed ... and, in particular, how innovation is to be encouraged. Put bluntly, widely held beliefs about the ways in which bureaucracy and democracy should work are deeply destructive of the quality of public provision. (But it may be noted in passing that the so-called “market” process is in no position to overcome them.)

Discouraging though this list is as a list *qua* list, its depressing effect pales into insignificance when compared with that which stems from recognising that these barriers do not operate singly but form an interlocked *system* in which one cannot make a significant change in any of the parts without changing the whole ... otherwise individual changes, sometimes successful in backwaters or in the hands of champions, are negated by the reactions of the rest of the system. (Unfortunately, centralised, system-wide, change [the usual “solution” proffered once the need

for systemic change is recognised] based on opinion and ignorance simply exacerbates the problems.)

Note that the system is not self-contained. Thus one of the sociological functions of the educational system (and not necessarily the most important at that) is to legitimise the use of simplistic concepts of “ability” to legitimise a hierarchical and divided society.

This hierarchical society in turn compels most people, even those who explicitly do not wish to do so, to participate in social arrangements which both inflict endless destruction on the planet and subject vast numbers of people to degrading and dehumanising ways of life.

Two things follow from what has just been said. To move forward it will be necessary to:

1. Create a pervasive climate of experimentation and learning in every nook and cranny of the system.
2. Develop a much better understanding of the socio-cybernetic feedback loops which govern the operation of the system and find ways of intervening in (harnessing) them.

Much the talk will be devoted to unpacking the meaning and implications of these two statements.

But a couple more things may be said here about each.

The task of releasing a ferment of innovation, arranging for the short and long term, personal and social, consequences of each of these developments to be assessed in a comprehensive way, and feeding that information into public debate instead of upward in a bureaucratic hierarchy to elected representatives is a task for public servants. How are we going to hold them accountable for doing that? What new understandings of public management – forms of democracy and bureaucracy – are required?

The task of mapping and finding ways of intervening in the network of hidden socio-cybernetic forces which control the operation of the system is no mean task.

Let me unpack that statement a little.

Cybernetics is the study of the guidance and control systems of animals and machines. One has to say “animals”, otherwise people think it is concerned solely with the control systems of man-made machines. In reality, it encompasses such things as the study of the diffuse feedback loops that control eg homeostasis in the body and the huge network of forces which control the development of organisms.

So *socio*-cybernetics becomes the study of the (hidden) guidance and control systems of society.

Let me briefly develop an analogy.

Prior to Newton, there was no concept of physical force. There was just the wind and the waves - and the Gods who controlled these capricious things.

Having elucidated the concept of *force*, Newton was able to map the forces acting on sailing boats and work out how to harness them so that they would drive boats more or less where people wanted them to go instead of crashing them against the rocks.

Today we have no equivalent concept of social force or ways of measuring or mapping such forces ... still less ways of thinking out how to harness them so that they push us where we want to go instead of crashing us against (economic and other) rocks. Like ships' captains prior to Newton, the best we can do is sacrifice our children to our Gods via our modern equivalent of priests – viz our economists.

(One implication of this observation is that we urgently need to create within our universities niches for people who might – at least collectively – turn out to be the modern equivalent of Newton.)

It follows from these observations that, among the huge range of developments needed to move forward, two of the most important are:

1. New arrangements for studying and harnessing socio-cybernetic forces.
2. New forms of public management ... new forms of democracy and bureaucracy.

Let me now further underscore the importance of these two developments.

Our way of life, our species, our planet, face at least the following imminent disasters:

- **The collapse of the financial system** due to usurious money lending (especially to the third world) and the degradation of the nature of money.
- **The collapse of the biosphere** – the destruction of the soils, the seas, and the atmosphere – due to such things as chemical and energy intensive agriculture, the consumption of fossil fuels and irreplaceable minerals, and our inability to dispose effectively of the products and by products of industrialised production.
- **The collapse of our food base** due such things as the destruction of soil fertility on the one hand and the population explosion on the other.
- **The collapse of the world order** arising from the increasing international differentials generated in part by such things as the policies of the IMF and the WTO.
- **A nuclear winter** stemming from the conflicts that are likely to arise as nations fight over diminishing resources. (Note that these will not diminish steadily but fall dramatically as “overshoot” bites.)

This means **we do not have any option but to change**. Either we rapidly and radically change our way of life or we will *be* changed – and in such a way that neither our species nor the planet as we know it will have much chance of survival.

But the main point to be made here is that the causes of these problems do not operate independently but form a system in which the effects of attempts to change any one component (such as the production of greenhouse gasses) on their own are negated by the reactions of the rest of the system.

Yet there can be no blueprint for what to do. So many changes are needed all over the place that they could not possibly be foreseen by any centralised government or committee.

In other words, we have to generalise the conclusions I have drawn about the developments needed to move the educational system forward.

If time permits, I will mention some of the endless things we could do as individuals to bring about these changes. All I can do here is say that they are *not* the obvious things that would be suggested by “common sense”.

Here I have, unfortunately, to conclude on a still more pessimistic note.

In a recently re-published book, Bookchin first argues that what are often regarded as “primitive” societies (and there are still a number functioning today) are best thought of as “organic” societies. Roles within them are differentiated as are the cells of the body, but such differentiation is reversible as is the functioning of many body cells if transplanted. Coordination between the parts is not brought about through hierarchical structures but through many poorly understood feedback loops that enable distal cells to influence each other. Maintenance of body temperature is, for example, brought about through multiple systems – not a single system.

He then shows that the trend away from such arrangements toward societies characterised by centralisation, hierarchy (which has many more negative effects than those we have mentioned), command and control, and the generation of endless senseless work to occupy the masses, cement hierarchy, and gratify an elite has been proceeding relentlessly across millennia – indeed since time immemorial. The process has continued despite the cries of endless acute observers of society and, indeed, experimental demonstrations of the feasibility of other ways of doing things. (Interestingly, the latter include some whole Greek societies ... which seem to me to approximate more closely than the organisations Deming and other authors familiar to the members of the DLN talk about to the kind of Learning Society we should be aiming for.)

Bookchin notes that the process is, in part, “self-organising”. But, crucially (so far as I can see), he fails to explain how the self-organisation comes about.

A better term is “autopoietic”, which was coined to emphasise the tendency of these systems to both reproduce and, more importantly, *produce* – viz *extend* – themselves.

In reality it *is* necessary to explicate the feedback loops and mechanisms that control the development and functioning of such autopoietic systems as animals and plants.

I would particularly emphasise the need to understand their ability to produce ever more elaborate forms of themselves. It is this very process which has enabled life – the organic – to overcome entropy.

And so, it seems to me, it *is* necessary to explicate the feedback loops that have led society *at each and every stage in development* to move toward more and more centralisation, command and control, hierarchy, destruction of those humans deemed “less able” (even “inhuman”), and destruction of our habitat.

The chances of reversing this trend so as to create the more “organic” arrangements advocated by such people as Deming and Johnson & Broms and essential for our survival as species therefore seem remote indeed.

As far as I can see, the one remaining hope lies with socio-cybernetics. Unfortunately, most of those who embrace this label do not seem to have grasped the importance of the problem.

References

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- 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 (Also available from the author at 30 Great King Street, Edinburgh EH3 6QH.) PDFs of several of the chapters can also be found in the “full list of publications” on the *eyeonsociety* website around: <http://www.eyeonsociety.co.uk/resources/MEFESChap1.pdf>
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- Grignon, Paul (2007) *Money as Debt*. Animated video viewable on line: <http://www.youtube.com/watch?v=vVkJb26u9g8> The original, which was available without going to youtube, seems to have been removed and replaced by a, possibly updated, version orderable as a DVD.

Handouts to be used in the lecture.

[http://www.eyeonsociety.co.uk/resources/Figure%201%20\(formerly%2023.1\)%20rev.pdf](http://www.eyeonsociety.co.uk/resources/Figure%201%20(formerly%2023.1)%20rev.pdf)

[http://www.eyeonsociety.co.uk/resources/Figure%203%20\(formerly%20Diagram%2020.5\).pdf](http://www.eyeonsociety.co.uk/resources/Figure%203%20(formerly%20Diagram%2020.5).pdf)

<http://www.eyeonsociety.co.uk/resources/diagram25-1.pdf>

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