Psychologists and Sustainability

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Over the past decade, a number of authors have discussed the role that psychologists might, or ought, to be playing in promoting activities designed to combat one or another of the accelerating trends widely seen as being likely to lead to the destruction of society as we know it. Thus Oskamp (2000) provides a general overview and Spence et al (2009) review ways in which psychological knowledge might be deployed to induce people to change their behavior in ways thought desirable from the point of view of halting global warming.

I have four fundamental problems with these articles:

1. Most, if not all, of the authors view the problems to be tackled as basically physical, economic, medical, etc. and assume that the task of the psychologist is to induce behavior which will contribute to the solution of the problems defined in these terms. In contrast, Bookchin (eg 2005) and I (eg 1995) argue that these problems are to be viewed as *symptoms* of *dysfunctional social organization* and, as such, are to be understood and addressed using the concepts and methods of the social sciences.

2. Most discussions proceed as if the problems could be tackled separately, one by one. In fact the problems – global warming, the imminent collapse of the financial system[1], the equally imminent collapse of our food base arising from the destruction of the soils, seas, and atmosphere, the wars likely to occur as nations fight over diminishing resources, and the population explosion – form a *system* such that attempts to fix any one of the components on its own will be negated by the reactions of the rest of the system. For example, attempts to stem global warming by reducing car usage are negated by incentives to purchase more cars "to stimulate the economy"[2]. It follows that, *because* they form a system, there is, for example, little point in individual citizens doing *any* of the things that are widely touted as aids to stemming global warming. The *whole* system needs to be fixed[3]. At best, following common exhortations would simply plug a few holes in a rapidly sinking ship, thus allowing one of the other trends to be seen as responsible for our extinction.

3. The authors proceed as if specific routes to the solution of these problems can be identified using the concepts and methods of reductionist science and that all that remains is to give teeth to the resulting recommendations. In fact, the solution to these systemic problems, taken as a whole, clearly requires total and radical change in the way we live. Nothing else will do. Either we take the initiative to introduce these changes or we will *be* changed – probably eliminated – as the laws of physics, biology etc. bite. *Pervasive* change is required … changes as great as those between hunter-gatherer and agricultural society. And, just as no one in a hunter-gatherer society could envisage what an agricultural society would look like, so no one in our society can envisage what a sustainable society will look like. One needs a societal management system which will innovate and learn without central direction. This is, of course, exactly what Adam Smith and Fred Hayek believed their "market" solution offered. Unfortunately, as Robert E. Lane (1991) and I have shown, that answer does not, and cannot, work. Too many costs are externalized and prices fail to reflect the true resource and environmental and social destruction costs involved. Furthermore, "customers" are rarely individuals voting with their pennies but people spending someone else's money for defence systems, health care systems, and so on. So we need an alternative answer to Smith and Hayek's quest. Psychologists have a crucial role to play in generating that answer. It depends, above all, on developing new organizational arrangements for societal management – new forms of democracy and bureaucracy. We need to find ways of ensuring that those who are involved see their role as being to release a ferment of innovation involving comprehensively evaluated experiments and finding ways of acting on information in an innovative way in the long term public interest. In other words, we need (among other things) new job descriptions for our public service managers and citizens, new staff and organizational appraisal systems, and new interfaces between them and the public. In short we need a new design for a learning society[4].

4. Most of the authors seem to assume that, if the nature of the problem is clarified, potential ways forward identified, and an appropriate report prepared, some authority will issue the "necessary" commands and prescriptions[5, 6]. Yet there is no evidence at all to support this hierarchical, authoritarian, assumption. On the contrary, there is endless evidence[7] that precisely the opposite is the case – that the trend toward centralized, command and control oriented, public management which has proceeded inexorably since time immemorial has itself contributed enormously to the problems we face.

Let me now enlarge on some of these observations.

The view that our perceived problems stem from forms of social organization which are beneficial to some in the short term but confer disbenefits on most in the short term and everyone in the long term has been most cogently articulated by Bookchin (2005). He argues, nay, demonstrates, for example, that neither the endless toil nor the hierarchical organizational structures which become ever more characteristic of social organization over time ever were, or now are, essential to grow food or to deliver high quality of life[8, 9]. On the contrary, most work – like dragging huge blocks of stone to build pyramids – was, and still is, essentially senseless[10, 11]. Its function is to legitimise, give meaning to, essentially *constitute*, hierarchy.

It is the production and distribution of these material goods and services –goods and services that can be commoditised and traded in the "marketplace"– these trappings of hierarchy – that consumes the resources and destroys the soil, seas, and atmosphere of the planet.

Wackernagel and Rees (1996) have shown that it would require five back up planets engaged in nothing but agriculture for everyone alive today to live as we live. There are not five back up planets. Yet billions of people in China and India are intent on trying to live as we live.

It follows that there is little point in seeking to tackle the seeming "resource" and "pollution" problems within the current system. Fix the system and the problems will go away – or, at least, since we are in most cases in a condition of "overshoot"[12] – be ameliorated.

How to fix the system?

Let us first note that the development of the system alluded to above has disturbing self-elaborating and self-developing features. Our first stunning encounter with these processes was through our research into the so-called "educational" system (Raven, 1994). We started with the assumption that, if we clarified the goals of the system, those involved could step back and implement appropriate policies. We could not have been more wrong. The system seemed to have a life of its own and developed in exactly the opposite direction. Why? One reason was that, as already mentioned, attempts to change any one component on its own were negated by the reactions of the rest of the system. But it was worse than that. The system itself seemed to become ever more elaborate, self-perpetuating, and command and control oriented. Prompted by Morgan (1986), we sought to map the socio-cybernetic processes involved.

Socio-cybernetic? Cybernetics is concerned with the study of the guidance and control systems of animals and machines. One has to say animals … otherwise people think cybernetics is concerned only with the design of man-made systems like missiles. So one has to study the invisible processes which regulate and control the functioning and development of animals and plants.

And here one encounters something very important … for those control processes are mostly non-hierarchical and multiple. Thus body temperature is regulated by multiple, non hierarchical, processes. Organic development is controlled by multiple interactions generated within and between cells both local and distal. But now, wait for it, organic development over the generations becomes ever more elaborate. The system is not merely self-perpetuating but self elaborating. The term "autopoietic" was coined to capture these features of developing systems. But here one encounters a staggering phenomenon. As one seeks to map the feedback loops in autopoietic, self-elaborating, organic, systems one finds that it is essential to include the life force itself (Raven, 2008). This is nothing less than *the* central mystery of the universe. How did life evolve when the laws of physics say that all should degenerate into entropy?

Well now, so, if we want to understand the progressive evolution of the complex system we call society … and discern how to intervene in it … it is crucial to undertake some socio-cybernetic studies.

Moving away from psychology? Not a bit of it. Psychology defines itself as being concerned with describing and understanding human behavior. In the past, the assumption has been that the most important determinants of behavior are *internal*. But now what we see is that they are *external*. We find ourselves in the position in which physicists found themselves prior to Newton. At that time, if things moved or changed direction it was because of their *internal* properties: they were *animated*. After Newton, it was mainly because they were acted upon by a network of *external* forces that could nevertheless be mapped, measured, and harnessed.

So it behooves us, as psychologists, to map the socio-cybernetic forces which control behaviour.

Back to the educational system. As we sought to map the socio-cybernetic forces which control its operation we became disturbingly aware of the role played by a seemingly dysfunctional network of beliefs about public management. At heart, these had to do with the perceived efficacy and appropriateness of the hierarchical, centralized, command and control, management arrangements that are commonly referred to as "democracy".

Now. Strange to tell. One of the most disturbing things Bookchin has documented has been the progressive, seemingly unstoppable, evolution, over millennia, of hierarchical societal organization. Early societies adopted arrangements which are best characterized as *organic*. The cells of an organism perform different functions but coordination between them is achieved in non-hierarchical ways. Such was the case in vernacular societies. The evolutionary trajectory in moving away from this also seems to be best characterized as autopoietic, even organic. Halting it is going to be much more difficult – and much more dependent on contributions from psychologists – than most of the authors mentioned earlier seem to have suspected.

There is one specific topic I would like to encourage psychologists to explore. This is to examine the role of myths in contributing to this self-elaborating and self developing process.

Current societal management arrangements are supported by a network of myths which are every bit as important as those which so obviously control the operation of vernacular societies. These include the myth of the efficiency of the market place (actually the least efficient way of doing anything [see Raven, 1995]), the myth that competition is necessary to stimulate innovation (in fact most innovation stems from publicly funded activity), and the myth that hierarchical organization is efficient (in fact it is grossly inefficient [see eg Bookchin, Deming, Johnson & Broms, and Seddon (2008)]). The question for psychologists is: "How do these myths get created and selected in a kind of cyclical, recursive, interactive way so that they support and encourage the further development of social arrangements which in turn contribute to the creation, selection, and elaboration of further myths which again contribute to their development?"

NOTES

1. We have recently caught a whiff of this, but the true scope of the imminent disaster may be discerned from the writings of Raven (1995) and Pettifor (2006).
2. I should perhaps counter the objection that the new cars to be introduced are to be more energy efficient and less polluting than those they replace by pointing out that the energy consumed, the pollution generated, and the contribution to international strife evoked in the

manufacture of a new car vastly exceeds any potential savings that might be achieved by running a more efficient, less polluting, car. (Don't forget to count the *energy* cost of mining and refining the materials that are required in some third world country, transporting those materials internationally, bringing labourers and salesmen to their workplaces, and so on. And don't confuse energy and pollution savings with financial savings: Prices are primarily determined by an accretion of expedient politico-bureaucratic decisions and not by any "true" costs of land, labour, and capital – witness the relative prices of aviation and other fuels and the recent demonstration that the banks are able to create trillions of dollars or pounds out of thin air [see Raven,1995, Pettifor, 2006, and Grignon,2007]

3. As far as I can make out, many people are vaguely aware of this but have not articulated it in these terms.

4. see http://www.psychwiki.com/wiki/Creating_a_Learning_Society:_What_have_Organisational_Psychologists_to_Offer%3F

5. It may be objected that Spence et al are, on the contrary, calling for diffuse citizen action. But a closer reading reveals that they are, in reality, calling on some authority to give teeth to the findings of psychological studies dealing with how to bring about change in social behavior along lines suggested by physical and biological scientists.

6. Virtually all the well informed and articulate speakers who addressed the Alternative G8 conference held in Edinburgh a few years ago proceeded on the assumption that, if they shouted loud enough, the "leaders" attending the main G8 conference would hear them and take appropriate action.

7. See eg Bookchin (2005), Deming (1991), Johnson & Broms (2000).

8. In so arguing he is, or course, taking a position diametrically opposed to the conventional "Marxist" position.

9. Numerous authors including Robert E Lane (1991) and Marks et al (2006) have demonstrated that the material goods and services that we spend so much time and energy producing and distributing contribute little to quality of life. Quality of Life depends on things which cannot be commoditised and bought and sold on an individual basis – things like security for the future, freedom from plague and disease, a pollution free environment, secure knowledge that one will be fed and clothed.

10. *Most* work in modern societies is senseless. It consists of such things as transporting identical goods in opposite directions for many thousands of miles around the globe, compelling thousands of people to spend hours completing for "benefits" forms applying for jobs which don't exist, producing, marketing, and distributing junk foods, junk toys, junk insurance, and junk education. A fuller discussion will be found in Raven (2008).

11. Of course, those dragging the blocks of stone, piloting cargo planes etc. mainly regard their work as "useful"

12. It is commonly assumed that, for example, if some "world government" were to introduce policies which would reduce population to the carrying capacity of the planet we would be OK. No such luck. As species approach the carrying capacity of their ecological niches, they double up the carrying capacity of those niches by drawing on food etc. which would not normally be part of their food chain. When the day of reckoning finally comes they therefore find that they have destroyed their habitats to such an extent that those habitats cannot support the population at the level that would have been possible under stable conditions. Population therefore falls back to a position from which it is very difficult, sometimes impossible, to recover.

REFERENCES

Bookchin, M. (2005 [1971; 1991]). *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy.* Oakland, CA: AK Press.

Deming, W. E. (1993). *The New Economics for Industry*, *Government, and Education*. Cambridge, MA: Massachusetts Institute of Technology.

Grignon, Paul (2007) *Money as Debt.* Animated video viewable on line: http://www.youtube.com/watch?v=vVkFb26u9g8 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.

Johnson, H.T. and Broms, A. (2000) *Profit Beyond Measure.* New York, NY. Free Press.

Lane, R. E. (1991). *The Market Experience*. New York: Cambridge University Press.

Marks, N., Simms, A., Thompson, S., and Abdallah, S. (2006).*The (Un)happy Planet Index: An Index of Human Well-being and Environmental Impact.* London: New Economics Foundation.

Morgan, G. (1986). *Images of Organization*. Beverly Hills, CA: Sage.

Oskamp, S. (2000). A sustainable future for humanity? *American Psychologist, 55(5)*, 496-508.

Pettifor, A. (2006) *The Coming First World Debt Crisis.* Basingstoke: Palgrave Macmillan.

Raven, J. (1994). *Managing Education for Effective Schooling: The Most Important Problem is to Come to Terms with Values*. Unionville, New York: Trillium Press; Edinburgh, Scotland: Competency Motivation Project.

Raven, J. (1995). *The New Wealth of Nations: A New Enquiry into the Nature and Origins of the Wealth of Nations and the Societal Learning Arrangements Needed for a Sustainable Society*. Unionville, New York: Royal Fireworks Press; Sudbury, England: Bloomfield Books.

Raven, J. (2008) The Emergence of Hierarchy, Domination, and Centralisation: Reflections on the Work of Murray Bookchin http://www.eyeonsociety.co.uk/resources/Bookchin.pdf

Seddon, J. (2008). *Systems Thinking in the Public Sector: the failure of the reform regime ... and a manifesto for a better way.* Axminster, UK: Triarchy Press.

Spence, A., Pidgeon, N. and Uzzell, D. (2009) Climate Change – Psychology's Contribution. *The Psychologist,* 22, 108-111.

Wackernagel, M., & Rees, W. E. (1996). *Our Ecological Footprint: Reducing Human Impact on the Earth*. Philadelphia: New Society Publishers.