

Open Dialogue: Toward Professionalism in Psychology and Education

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SCHÖN¹ has argued that *professional* competence involves working *outside* one's authenticated domain of technico-rational competence and engaging with ethical and societal issues.

In this paper I will argue that this is especially important for those psychologists working in areas bearing on education and the development and utilisation of human resources. I will argue that psychologists' neglect of many problems that should have been addressed *within* their domain of technico-rational competence has serious ethical implications. Paradoxically, getting those problems addressed will require psychologists to work *outside* their domain of authenticated competence. In other words, greater professional competence is required. One contribution to this would be to encourage the Section to make greater efforts to influence the priorities, assumptions, and workings of the British Psychological Society and society more generally.

I will begin by very briefly summarising (and thus necessarily over-stating) our now fairly well-known work on the aims of education and why these are generally neglected which was summarised in my 1994 book *Managing Education for Effective Schooling*. Thereafter, I will take up the story from where that book left off.

The aims of education

Numerous opinion surveys² have shown that the overwhelming majority of parents, pupils, teachers, 20- to 30-year-old ex-pupils, and employers think that the main goals of education involve nurturing such qualities as 'the confidence and initiative required to

introduce change' (the most widely endorsed goal among our adolescent pupils), problem-solving ability, the ability to work with others, the ability to make one's own observations, the ability to communicate, leadership, and the ability to understand how organisations and society work and play an active part in them. More generally, they include helping people to develop, and get recognition for, the diverse, often idiosyncratic, talents they possess. The objectives said to be most important do include helping people to acquire the credentials that appear to control entry to jobs, but the impact of this is tempered by widespread recognition that much of the formal knowledge on which such certificates are based is, in reality, *unimportant*³.

These wider goals have also been emphasised in the curriculum documents published in many countries⁴. And they have been stressed for almost a century in some of the most widely cited books in teacher education⁵.

Somewhat to the surprise of many people, numerous studies of the competencies required in the workplace confirm the accuracy of these opinions⁶.

Schools neglect these goals

Yet, despite this virtual unanimity – and, indeed, despite the fact that the very word 'education' itself comes from the Latin root 'educere' which means 'to draw out' (the diverse talents of the students) – most schools neglect most of these goals most of the time⁷.

Pupils' reactions

In round figures, about one-third of pupils react positively to their educational experience, one-third just about tolerate it, and one-third find it thoroughly destructive⁸. And they do not change their minds as they grow up and get jobs⁹.

It can hardly be considered ethical to keep so many cooped up for so long in such institutions. So, if we accept Schön's argument, this means that we have a *professional* responsibility to do something about it. Somewhat paradoxically, this means, working *outside* what is currently defined as our area of professional competence in order to facilitate and bring into being the adventurous research needed to advance understanding *within* that field. It also means seeking to influence social and political systems.

Reasons for neglect

Our next step has to be to ask why there is this enormous discrepancy between precept and practice. One obvious factor is that many people do not believe that pupils, and people in general, possess a wide variety of very different talents. They tend to think in terms of a single factor of 'ability'. But when teachers and managers adopt appropriate developmental strategies¹⁰ it becomes clear that, as Spearman, the father of *g*, put it, 'Every normal man, woman and child is a genius at something. The problem is to identify at what. This cannot be done with any of the psychometric procedures currently in use'¹¹.

A second pretty obvious problem is that there is very little formal understanding of how to think about and nurture these talents. This is true despite the extensive, but relatively informal, knowledge about such matters possessed by many parents¹², a significant proportion of managers¹³, and about five per cent of teachers¹⁴. But there is a major problem involved in formalising this knowledge. This is that we not only need a paradigm shift in the ways we think about and measure competence, we also need to

move toward a more 'ecological' model when thinking about person-environment interactions.

In an attempt to address these problems, we set about conducting, bringing together, and trying to formalise, research in these areas¹⁵.

In the course of this, it became clear that there are no tools to help teachers¹⁶ or managers to create group-based developmental environments which embody personal developmental programmes tailored to the motives and talents of individuals. Such tools are also required to identify the participants' motives and incipient talents, create individualised developmental programmes, monitor development, take corrective action when necessary, and give the pupils or employees credit for the idiosyncratic talents they develop.

At first it seemed that a move toward a more descriptive framework (as in biology) for thinking about individual differences and a parallel move toward an interactive (ecological) framework for considering interactions with the environment would suffice. However, it gradually became clear that better ways of thinking about the processes the outcomes of which one was seeking to document was a pre-requisite to meaningful evaluation¹⁷.

More basic insights

But the most important lessons we learnt at this point in our work were at a quite different level.

As far as reform of the educational system is concerned, it became clear that one could not change one thing without simultaneously changing other things. One could not alter classroom processes without altering assessments and one could not meaningfully assess high-level competencies without creating the developmental environments needed if these competencies are to grow and become visible. And one could not change assessments without changing the criteria that are used by employers and universities to select entrants. And so on.

But that was only the beginning! Inadequate technico-rational understanding of the nature of competence and how to nurture and record its components is not the only reason why teachers tend to neglect their main goals. Others include an inability to handle the value conflicts which surface as soon as one tries to introduce educational programmes which actually set out to nurture high-level competencies or promote diversity. A brief example will suffice. As soon as a teacher announces that he or she is going to create a 'thinking classroom' and sets about encouraging children to ask questions they encounter parents who insist 'I don't want my kid asking any more questions. He asks too many already. Your job is to have him sit still and learn what he needs to know to pass his exams! And, furthermore, I don't want you encouraging these things in her kids either. If you do, those kids will do better in life than mine ... and I don't want *that!*'

Rethinking public management

Handling such value conflicts presents a major problem in education. One way to do so might be to create a variety of distinctively different educational programmes which actually do nurture different talents, document the differential consequences of these in a comprehensive* way, and feed that information to the public so that they can make informed choices between them. This stands in stark contrast to the notion that (very limited) information deemed relevant to such decisions should be fed upward in a bureaucratic hierarchy to politicians who take decisions binding on all. In short, it involves the evolution of new concepts of bureaucracy and democracy¹⁸ – concepts that will facilitate evolution itself.

So, whose job is it to create this variety and make arrangements whereby people can make informed choices between them? It seems it has to be the job of public servants¹⁹. It becomes their job to promote a ferment of innovation and learning. This means encouraging everyone in the system to experiment in their own areas and to support those trying to do so in related areas. It means facilitating the evolution of comprehensive evaluations. It means facilitating a move away from methodologies grounded in positivistic thinking toward methodologies grounded in what might be called 'ecological' science and adoption of what has been called 'illuminative' methodology. Beyond that, it involves examining the results of all the experiments that are initiated in order to draw out their implications for understanding the currently invisible *systems* processes that are deflecting educational activities from their goals. Creating a ferment of innovation also means acting on the information which becomes available in an innovative way, i.e. as part of a recursive cycle of experimentation, learning, and adjustment.

If they are to do these things, there will need to be a sea-change in beliefs about what the role of public servants (including head teachers) actually is. It will be necessary to generate new job descriptions for them. These will need to include such things as requirements that they seek out information and act on it in an innovative way in the long-term public interest – in short that they act as professionals. And it will be necessary to evolve new staff and organisational appraisal systems to find out how well they are doing.

How to get them to pay attention to such evaluations of their work? The answer was, in some sense, provided by John Stuart Mill in

*Comprehensive evaluation involves documentation of *all* the intended and unintended, desirable and undesirable, short- and long-term, personal and social, consequences of each proposed course of action (what is good in the short term may be bad in the long term; what is good for the individual may be bad for society). The issue is actually of vital importance because it involves serious ethical issues associated with single-outcome evaluation as favoured by reductionist science. There is not space to go into these questions here, but see Prieler & Raven (2008).

1859²⁰. One way to make it more likely that people will act in the long-term public interest instead of their own personal interests is to expose their behaviour to the public gaze. Or, as Mill put it, by making 'visible to everyone who did everything and by whose default anything was left undone'. So what is required is a network of overlapping monitoring/supervisory groups as distinct from a form of accountability supposedly feeding information through extended bureaucratic chains to distant multi-purpose assemblies composed of what Adam Smith and John Stuart Mill called 'committees of ignoramuses'.

Systems thinking

But, to return to the question which led us to embark on this discussion: How are we to understand why teachers tend to neglect their main goals? It became apparent that there are multiple reasons and that these both interact with and support each other. In due course, it became clear that we were dealing with a *system* in which it is impossible to bring about change any one part without changing the whole. (Or, at least, such that, if one does change one part on its own, those changes will either be negated by the rest of the system or have unintended, and perhaps undesirable, consequences elsewhere.)

The conclusion usually drawn from this observation is that one needs *system-wide*, centrally decreed, change to move forward. Not so, we observed. To advance, it will be necessary to make so many as yet unknown changes in so many parts of the system that they could not possibly be envisaged by any central committee. What is needed is multi-pronged *systems-oriented* (not system-wide) intervention. It will be necessary to create a ferment of experimentation and learning – especially *systems* learning. It therefore became clear that our data pointed to a way forward which is fundamentally opposed to that being avidly pursued throughout the world. A central problem (if indeed there is such a thing as a central problem in a system) had to do with inappropriate beliefs about society and how it should work; inap-

propriate beliefs about public management and the role of the citizen.

A systems map of the educational system

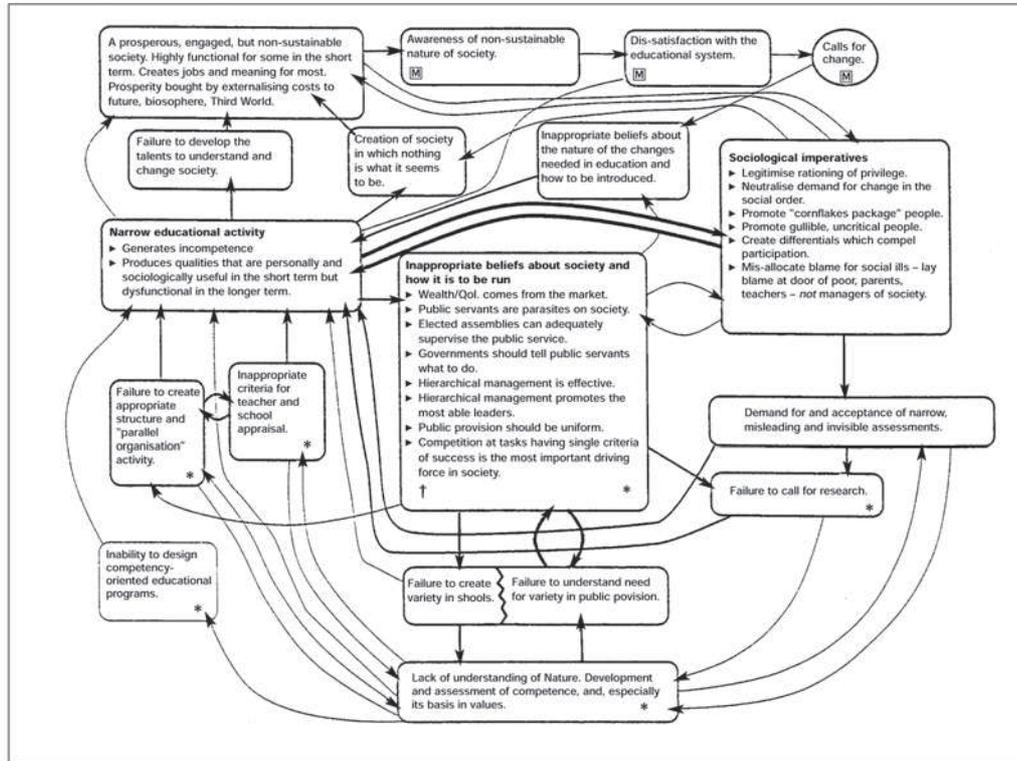
We attempted to map some of the connections in Figure 1.

So now to unpack this diagram.

Among other things, it shows:

1. That the dominance of the activities with which schools are preoccupied arises from:
 - (i) A series of sociological imperatives (e.g. that schools assist in legitimising a hierarchical society and deciding who will be promoted into the higher ranks in that society). It follows from this – and this has important implications for the way we tend to think about solutions to the problems reviewed earlier – that what happens in schools is not mainly determined by the wishes of parents, teachers, pupils, employers, ministers of education or anyone else but, at least to a significant extent, by what is assessed in the sociological process of allocating position and status;
 - (ii) Inappropriate beliefs about the way in which public institutions should be managed;
 - (iii) Society's failure to initiate research which would yield useful insights into such things as the nature of competence and how it is to be fostered and assessed;
 - (iv) The absence of: (a) systematically generated variety in, and choice between, educational programmes which have demonstrably different consequences; and (b) comprehensive information on the consequences of each of these alternatives;
 - (v) Failure to create climates of innovation within schools²¹;
 - (vi) Inadequate dissemination of the results of research into the nature, development, and assessment of

Figure 1: Feedback loops driving down quality of education.



* Intervention in these cells would help change the nature of the qualities nurtured and rewarded in the system. Motives which could be harnessed to do this are marked ▣.
 † These need to be replaced by acceptance of the need to make managed economies work – to find way of giving effect to information concerning the public long-term interest, the need to explicitly create variety and information on the personal and social consequences of the options, and to find ways of holding public servants accountable for, and getting them to at in, the long-term public interest. This means systematic, broadly based, evaluation and participative democracy.

- generic high-level competencies, and, especially, the implications of the values basis of competence.
2. That this narrow educational process has a series of knock-on effects which finally contribute to its own perpetuation. The competencies and beliefs that are nurtured and inculcated in schools reinforce a social order which offers major benefits to ‘able’ people who do what is required of them without questioning that order. That society creates endless work which gives meaning to people’s lives (but does little to enhance the general quality of life) and creates wealth at the expense of the biosphere, future generations, and the third world. The formal and informal ‘educational’ system helps to teach a host

of incorrect beliefs which collectively result in hardly anything being what it is popularly or authoritatively said to be (e.g. the educational system itself claims to be about promoting the growth of competence when it in fact mainly operates to engage vast numbers of people in ‘teaching’ and ‘learning’ activities of little educational merit but which ensure that those who are most able and willing to challenge the fraudulent nature of the system are routed to social positions from which they can have little influence while those who are least able to do anything except secure their own advantage are promoted into influential positions in society). This double-talk makes it extremely difficult to conduct any

- rational discussion of the changes needed in society. The sociological imperative that schools help to legitimise the rationing of privilege helps to create a demand for, and encourages acceptance of, narrow, invisible, and mislabelled assessments. Those predisposed to acquire these 'qualifications' are not inclined to see the need for, or to commission, genuine enquiry-oriented research or notice other talents in their fellows. Teachers who become aware of the hidden competencies of their 'less able' students experience acute distress. The lack of understanding of the nature of competence leads to a failure to underline the need for a variety of value-based educational programmes and thus to the perpetuation of narrow educational activity.
3. That the main motives for change include widespread awareness that there is something seriously wrong with the educational system, and, more specifically, that it fails miserably in its manifest task of identifying, nurturing, recognising, and utilising most people's motives and talents. (Unfortunately, the most commonly proposed solutions to this problem, based as they are on other misunderstandings, are inappropriate.) However, another motive for change stems from increasing recognition that we have created a non-sustainable society and that basic change in the way society operates is essential.
 4. That there are a number of points at which it should be possible to intervene in the feedback loops to create an upward spiral. These might involve:
 - (i) Promoting wider recognition that one cannot get value for human effort in modern society unless we introduce better means of monitoring and evaluating the long-term effects of what we are doing and better ways of giving effect to such information. This points to the need to change the way we run society, to the need to introduce more appropriate social research and evaluation activity, and to find ways of holding public servants and politicians accountable for seeking out and acting on information in an innovative way in the long-term public interest;
 - (ii) Introducing the 'parallel organisation'²² activities that are required to promote innovation within schools;
 - (iii) Establishing a greater variety of distinctively different, value-based, educational programmes and providing information on the short and long-term, personal and social, consequences of each;
 - (iv) Creating public debate about the forms of supervision – the nature of the democracy – needed to ensure that public servants seek out and act on information in an innovative way in the public interest;
 - (iv) Disseminating what is already known about the nature, development, and assessment of competence and its implications.
- Standing further back from the Figure what we see is that:
1. It is impossible to achieve significant benefits by changing any one part of the system ... such as curriculum, examinations or teacher training on its own ... without simultaneously making other changes – otherwise the effects of the change will either be negated by the reactions of the rest of the system or produce counterintuitive, and usually counterproductive, changes elsewhere. On the other hand, it is equally clear that command-and-control-based system-wide change based on uninformed opinion will achieve little.
 2. Pervasive, *systems-oriented*, changes are required to move forward. But these changes, although collectively system-wide, cannot be centrally mandated because there are too many new things to be done.

3. Since what happens is not determined by the wishes of any particular group of people but *by the operation of the system itself* the widespread tendency to single out and *blame* parents, pupils, teachers, public servants, or politicians is entirely inappropriate. *Their* behaviour is mainly determined by the system. One needs to take these systemic forces seriously and ask how they can be harnessed in an analogous way to that in which marine engineers harness the potentially destructive forces of the wind: They will not go away!
4. It is vital to generalise the observation made in (3): We need to fundamentally re-frame the way we think about the causation of behaviour in a way which parallels one of the transformations Newton introduced into physics. Before Newton, if objects 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 invisible *external* forces which could nevertheless be mapped, measured and harnessed. Observation (3) implies that we need a similar transformation in the way we think about the causes of human behaviour.
5. The network of forces depicted: (a) has the effect of driving attempts to deal with the problems based on single-variable common-sense interventions ever more narrowly, and ineffectively, around the triangle at the top left of the Figure; and (b) diverts attention from the developments, indicated in the bottom part of the Figure, that are so essential to move forward.
6. The *causes* of the symptoms (and thus the appropriate place to start reform) are far removed from those symptoms.
7. The system does not merely reproduce itself – it leads to the production of ever more elaborate versions of itself; it is self-elaborating; autopoietic*.

Social forces

In the foregoing, we have repeatedly used the word ‘force’. So now we must consider the nature, or status, of the ‘forces’ depicted. At the most basic level, Figure 1 is analogous to a map of the interacting gravitational forces controlling the orbits of the planets. But the nature of the social forces involved has yet to be elucidated. What is clear is that the links in the Figure are not flows of, for example, resources as in the models developed by Meadows et al. (2008). Nor are they flows of formal ‘information’ as in networks of emails. The contents of the boxes are not people or stocks of food or other resources. Only if the feedback loops do really represent *forces* in some sense analogous to the physical forces represented in the diagrams of physics does it make sense to ask how they can be harnessed (as in the forces acting on a sailing boat) or amplified or damped down (as in electrical energy flowing through a radio). In connection with the question of the objective ‘reality’ of these forces, we may note that, just as one can ‘feel’ the force of gravity acting on an object held at arm’s length or the force of an electric current passing through that same arm, so can one ‘feel’ social pressures.

Socio-cybernetics

It is useful here to introduce the term ‘socio-cybernetics’. Cybernetics involves the study of guidance and control systems in animals and machines. One has to mention animals, otherwise people think only of man-made systems, like missiles. But as soon as one includes animals in the definition it is clear that cybernetics is concerned with under-

* i.e. In some sense self-organising, self-reproducing, and self-extending. The problem with the word ‘self-organising’ on its own is that it is frequently taken to absolve the user from the need to explain how the self-organising process works. What we have seen here is that the ‘self-organising’ processes of the educational system involve a whole series of mutually reinforcing and recursive feedback loops both within the educational system and in relation to the wider society.

standing guidance systems which depend on multiple, non-hierarchical, feedback loops. So socio-cybernetics is concerned with understanding the social forces which control the behaviour of people in society (and regularly undermine well intentioned social action) and designing better socio-cybernetic guidance systems for the management of society.

Common-sense-based intervention in complex cybernetic systems has counterintuitive and usually counterproductive results

Here we go on what may initially seem to be a digression.

We have mentioned that common-sense based, single-variable, interventions in cybernetic systems tend to have counterintuitive and usually counterproductive effects.

A number of dramatic illustrations of concern to us all can be found in Forrester (1971). Forrester mapped and weighted the (often recursive) linkages (feedback loops) between the main economic and bio-physical resource variables contributing to such things as world population, pollution, per capita food supply, and quality of life²³.

Unlike the normal, and incomplete, mental maps we all carry around in our heads, and are used as a basis for most government planning, each assumption built into his model is explicit and can be subjected to scrutiny – and, in the Meadows et al. (2008) downloadable version, changed at will.

The main difference from our map of the forces controlling the direction of development of the educational system is that it was possible to quantify the inputs and outcomes using standard economic and consumption indices.

Forrester's paper includes several graphics showing the, generally counterintuitive, effects of changing some of the assumptions fed into the network²⁴. Many are frightening indeed. In this way they illustrate the importance of studying systems *qua* systems.

One graphic shows that, if things are left pretty much as they are, industrialisation will eventually be suppressed by falling natural resources. According to the model, quality of life peaked in the 1950s and by 2020 will have fallen far enough to halt further rise in population. Declining resources, and the consequent fall in capital investment, will then exert further pressure which will gradually reduce world population.

But if science and technology enable us to find ways to avoid resource depletion, the results are not at all what one might expect.

By not running out of resources, population and capital investment are able to rise until a pollution crisis is created. Pollution then acts directly to reduce birth rate, increase death rate, and depress food production. In this case, population, which peaks in 2030, declines by 83 per cent within 20 years. Forrester notes that this would be a disaster of unprecedented proportions.

Generalising: What we see here is a dramatic illustration of the common experience that common-sense based interventions aimed at fixing one problem within a poorly understood system create unexpected problems somewhere else in the system²⁵.

Implications for socio-cybernetics

Yet, impressive and illuminating though Forrester's and Meadows' reports are, we come up against a brick wall. For the authors then say that we 'lack the political will' to implement the solutions to which their analyses point.

Think about that! One of the things it indicates is that they have been unable to map and analyse networks of *social* forces like those which control the operation of the educational system: We are able to produce systemograms like those shown in Figure 1²⁶ but it is not possible to assess and weight the relative importance of the feedback loops and thus assess the probable effects of any proposed intervention. The task of finding ways of moving forward is down to socio-cyberneticians, sociologists, psychologists, and others.

But several things *are* now clear. One is that, if one is to intervene effectively in socio-cybernetic systems, we need some basic understanding of the system we are dealing with. And then we need to make numerous, *systems-oriented*, interventions.

Paradoxically, generating an understanding of a system depends on diffuse experimentation *coupled with comprehensive evaluation and a deliberate effort to elucidate the implications of the intended and unintended outcomes for our understandings the operation of the system.*

The way forward

In developing our map of some of the systems processes which control the operation of the so-called 'educational' system, we have used psychological data to illuminate a hidden network of social forces which overwhelmingly determines our behaviour and our theories. Many will claim that, as psychologists, we should not have done this or that we have 'gone way beyond our data' in doing so. Yet, if we, as psychologists, wish to claim either to be serious students of the determinants of behaviour or that we aspire to apply science to benefit society, there is no doubt that we need to take the study of such forces seriously.

But clearly we will not engage with this task if we continue to work within current images and definitions of our role. We need to actively articulate and promote a new image of ourselves and the role we can play in society. To put this another way, if we are to ferment the paradigm shifts that are required, or if we are to contribute as we would like to society, it is crucial for psychologists, *as part of our professional responsibilities*, to seek to understand, and find ways of intervening in, the omnipresent social forces which we have now seen control so much of our behaviour. Yet few of those who have noted the need for a sea-change in thinking about the nature, development and assessment of competence believe it is part of their job to try to bring it about, still less to intervene in the network of social forces we have described.

Designing a better public management system

How then to design a better guidance and control system for the management of the educational system and society more generally? There are many examples of more effective organisational arrangements to be found in research into individual organisations²⁷.

Bookchin²⁸ has drawn attention to something that seems to be common to these exemplars by describing them as moves toward 'organic' structures. He observes that many preliterate societies had/have *organic* management structures. In using this term he seeks to highlight the fact that the functioning of organisms is dependent on multiple, mostly non-hierarchical, feedback processes. Most bodily functions ... such as the maintenance of body temperature ... are dependent on multiple feedback processes the majority of which do not pass through the central nervous system. This is especially true in the course of organic development. The organ a cell will become and the function it will perform is determined by information somehow transmitted from both local and distal cells in the developing embryo. (It is not mainly determined by the genes in the way most people, steeped in hierarchical thinking, expect.) If the development of the embryo is somehow interfered with, the function a cell originally 'directed' to some destination will perform can change so that the organism as a whole can function in the normal way.

Bookchin argues that so it is with preliterate societies. Many have no chief, no hierarchy, no formalised religion, no government structure (at least in the sense in which we understand the term). And the activities undertaken by individuals within them change depending on the needs of the whole.

What emerges from many of the studies of modern organisations alluded to earlier is that organisations benefit greatly if they can move toward such organic structures.

As Bookchin shows, the observation that centralised command-and-control structures run into serious problems (including

destruction of their ecological niches) and generally fail to deliver high quality of life for most of those who participate in them has been made repeatedly and forcefully over endless millennia. Likewise, there have been endless demonstrations of the viability and success of alternatives. But the trend toward centralisation and command and control proceeds seemingly inexorably.

The wider context: The destruction of life on Earth

There is not space in this paper to develop in any detail the claim that the autopoietic system controlling the operation and development of the educational system that we mapped earlier is part of a wider autopoietic system controlling the operation of society. Nor can I here fully support my claim that these processes are heading our species toward extinction carrying at least a large proportion of all known life with us²⁹.

Nevertheless, the matter cannot be allowed to pass without comment. It is now widely recognised³⁰ that we, as a species, are heading toward extinction. The most striking summarising statement is that of Wackernagel and Rees (1996) who have shown that it would require five back-up planets engaged in nothing but agriculture for everyone alive today to live as Americans do.

There is a strong tendency to attribute this self-inflicted plunge of homo-sapiens toward extinction – despite widespread recognition of the need to radically change the way we live – to the doings of evil capitalists. Yet our work on the educational system shows that the process has too many components to support the view that it has been designed by an elite. What is most striking is that the educational system has evolved further and further along its current trajectory despite endless evidence that the vast majority of pupils, parents, teachers, ex-pupils, and employers want it to move in exactly the opposite direction and despite the existence of a number of alternatives.

Bookchin (2005) has developed the thesis, amply supported by historical and

anthropological data, that our plunge toward self destruction as a species has mainly been brought about by the creation of endless work which, contrary to what the conventional wisdom would have us believe, contributes little to quality of life³¹. He argues, convincingly, that the main function of this work is to legitimise, even constitute, hierarchy. The function of hierarchy is sinister indeed. It is to compel most people, often against their will, to engage in the aforesaid work. The process has continued inexorably over thousands of years despite the protests of endless thoughtful people and experimental demonstrations of the viability of alternatives. This, of course, parallels our own observations about the so-called 'educational' system. Nothing could be more serious. It is this endless senseless work that is consuming exponentially increasing quantities of the resources of the planet and destroying the soils, seas, and atmosphere in such a way that the end result will almost certainly be destruction of the planet as we know it. It would, therefore, seem that developing an understanding of, and finding ways of intervening in, this network of forces would be of even greater value than might be guessed from an examination of the educational system alone.

Seen in this light, the educational system's exponentially accelerating quest for processes and procedures which render the diversity of talent invisible and instead create and, in a recursive way legitimise, a single-value concept of 'ability' (which is not even correctly described as intellectual or academic) is to be viewed as but one component in a network that promotes the legitimisation and cementation of hierarchy.

Turning psychology inside out

At this point we may draw attention to a, somewhat paradoxical, but strikingly fundamental, thought that seems to have emerged in our discussion. This is that what we have said essentially involves turning psychology inside out. It means de-animating human behaviour in the way Newton de-animating

the behaviour of moving objects. It means attributing much of what we and others do to the invisible social forces that act upon us. Of course, that is an over-statement because we have spoken of the role of these forces in selecting and promoting certain sorts of people. Nevertheless there is something of an irony in suggesting that the way forward involves promoting the use of psychology to de-psychologise explanations of human behaviour.

And so to recap ... Early on in the development of our research – although only briefly touched on here – it became clear that we need a new framework, or paradigm, to guide our thinking about competence and its development and assessment. But study of why the educational system has not in the past operated in a more professional way has highlighted a more fundamental problem. This is that the behaviour of both our institutions as wholes and individuals within them is primarily determined by networks of mutually supportive and recursive *external* forces. This observation in turn affects our understanding of competence because it thus emerges that our competence is centrally dependent on understanding and harnessing these forces. More than that, it means that, if we, as psychologists, are to claim special expertise in the area of understanding and predicting human behaviour we have to de-animate psychology: to turn it inside out. This is not to say that we should neglect individual psychology any more than the discovery of the laws of motion mean that we should ignore study of the differences between different species of bird. But what it does mean is that, as professionals, it is incumbent on us to press for study of these forces. If we are to do these things we will need to press, not only for the development of new technico-rational knowledge but, more basically, for a move away from our current enthrallment with positivistic, reductionist, science. And, if we are to do any of these things, we will need to reconsider what it means to be a professional; what professional competence involves.

Summary and conclusions

Psychologists have failed to contribute adequately to our understandings of:

- The nature and varieties of competence, and especially professional competence.
- Ways in which the components of competence can be nurtured.
- The procedures to be adopted to assess the varieties of competence.
- The barriers which deflect educational institutions from their goals.
- The arrangements required to run public sector activities (e.g. the educational system) effectively.
- The dangers inherent in reductionist science, especially as they express themselves in evaluations of individuals, educational and social processes, and interventions in ecological processes.
- The changes that need to be introduced into evaluations of research proposals and the products of research if we are to move away from positivistic, reductionist, science.
- The socio-cybernetic processes which control the operation of, and generally undermine, well intentioned public policy.
- The societal management (socio-cybernetic, governance) arrangements which are required to create an innovative society which will operate in the long-term public interest.
- The external socio-cybernetic forces which primarily control the operation of society and the behaviour of individuals within it.
- The implications of all these things for our understanding of *professional* competence and the arrangements needed to promote its development.

A more specific oversight has been their failure to develop the tools that are needed to assist in the recognition, development, assessment, and release of competence.

All of these represent professional oversights (sins of omission) that have serious deleterious consequences for individuals, human society, and the future of our species

and the planet. They point to glaring professional incompetence and a gross neglect of ethical issues³². Coming to terms with them requires us to release ethically-oriented professional activity at every level from developing new conceptual frameworks and technical methods to intervention in societal processes. These outcomes will not be achieved via regulations requiring psychologists to engage in more techno-rationally oriented 'continuing professional development' activities. They could be achieved by deliberately establishing more 'parallel organisation activity'* throughout the profession. This would mean, through our professional organisations, insisting that time and resources be set aside for activities likely to promote innovation. Such 'parallel organisation activity' might include encouragement to set up fluid 'task groups' in which efforts would be made to draw on talents that are not listed in people's job descriptions, around initially barely recognised emergent problems. It would mean making arrangements to hold people accountable for having followed procedures that are likely to result in innovation rather than for such things as conforming to official regulations. It might involve making arrangements to recognise the contributions people have made to the development of their profession (as distinct from requiring them to keep a record of such things as certificates obtained or courses attended).

More specifically, it would be desirable for both individual members of the Section and the Section Committee to seek to influence:

- The way the British Psychological Society thinks about such things as 'Continuing Professional Development'.
- The kinds of issue with which the British Psychological Society's ethics committee tends to be preoccupied and specifically to pay more attention to sins of omission: *failure* to engage with wider issues nominally outwith our domain of professional competence.

- The way the British Psychological Society thinks about, and seeks to delimit, 'professional' behaviour.
- The criteria to be applied by journal editors for acceptance or rejection of journal articles: specifically a move toward encouraging more illuminating, adventurous, problem-driven, rather than literature-driven, articles. (This will normally involve reconsidering the peer-review process.)
- The ethical issues that arise in connection with the acceptance of research grants which preclude the researchers from looking at issues outside their brief.
- General beliefs about the way research should be organised and evaluated.
- The criteria and processes involved in RAE exercises.
- The criteria to be applied when evaluating the performance of heads of departments – have they, for example, managed to create climates of enthusiasm and innovation; have they sought to establish procedures which will promote the growth of student competence and adventurous research.
- The procedures and criteria employed by OFSTED.
- Publicising the problems associated with 'single-factor' models of 'ability' and the way they support hierarchy.
- A more specific activity would be to challenge the claims made by many of those who purport to have conducted studies supporting 'evidence based policy' but who have failed to take account of the serious errors introduced by failing to come to terms with such things as the diversity of outcomes.

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* Refer to Kanter endnote 21.

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Endnotes

- ¹ Schön (1983, 2001)
- ² Morton-Williams et al. (1968); Goodlad (1983); Johnston & Bachman (1976); Flanagan & Russ-Eft (1975); Flanagan (1978); De Landsheere (1977); Bill et al. (1974); MacBeath et al. (1981); Raven (1977); Raven, Hannon et al. (1975a, b), Andersson (2001b)
- ³ Seventy-three per cent of our adolescent pupils said that it was very important for schools to help them to do as well as possible in external examinations, but only 27 per cent that it was important to learn about aspects of subjects not required for examination purposes. These figures compare with 83 per cent who said it was very important for schools to help them 'develop the confidence and initiative required to introduce change'. Their answers to other questions confirm that they correctly recognise that the content they spend so much time studying and on which they are tested is largely a waste of time. I say 'correctly' because such knowledge has a half-life of a year. People forget 50 per cent in one year, 75 per cent in two years, 87.5 per cent in three years and so on. It is also out of date when it is taught and fails to relate to the problems with which pupils will have to engage later in life.
- ⁴ See especially Passow et al. (1976) or Munn (1977) for reviews. However, it is significant that such goals have not been stressed in *The Condition of Education* (United States Department of Education, 1981), *No Child Left Behind* (US Government printing office, 2001) or the *UK National Curriculum* (Department of Education and Science, 1989; National Curriculum Council 1990a, b)
- ⁵ See, for example, Dewey (1899), Kilpatrick (1918), and Parker (1969)
- ⁶ See Raven (1984/97), and Spencer & Spencer (1993) for summaries.
- ⁷ Goodlad (1983); HMI (1980); Galton et al. (1980); Raven et al. (1985); Johnston (1973); Johnston & Bachman (1976); Fraley (1981)
- ⁸ Morton-Williams et al. (1968); Raven (1977); De Landsheere (1977); Bill et al. (1974); HMI, Scotland (1980); MacBeath et al. (1981); Gray et al. (1983); Gow & McPherson (1980); Andersson (2001a, b)
- ⁹ Morton-Williams et al. (1968); Bachman, et al. (1978); Flanagan (1978)
- ¹⁰ See Raven (1994).
- ¹¹ In fact, as Spearman also noted, psychologists' tendency to reinforce the widespread tendency to think only in terms of a single 'ability' is highly unethical (and thus unprofessional) because, on the one hand, it deprives many people of an opportunity to develop and utilise their talents and, on the other, deprives organisations and society of talents that are vital from the point of view of transforming our way of life and thus surviving as a species.
- ¹² Raven (1980, 1989)
- ¹³ Klemp et al. (1977); Raven (1984)
- ¹⁴ Raven et al. (1985)
- ¹⁵ Raven (1977, 1980); Raven et al. (1985); Raven & Stephenson (2001)
- ¹⁶ See Raven et al. (1985) – summarised in Raven (1994) – for an account of how some teachers do these things.

- ¹⁷ Raven & Stephenson (2001), especially the chapter by Stephenson, Prieler & Raven; and Raven (engineered invisibility); Kazdin (2006).
- ¹⁸ For elaboration, see Raven (1995, 2000, 2010).
- ¹⁹ There is a widespread belief that such problems can be solved by turning management over to 'the market' but, as I have shown in my *New Wealth of Nations* (Raven, 1995) this is at best naive and usually a devious strategy for centralising control using suitable contrary imagery and ideology.
- ²⁰ Mill (1859).
- ²¹ The requisite developments are fully discussed in Chapter 8 of *Managing Education for Effective Schooling* (Raven, 1994) but especial reference should be made to Kanter's (1985) notion of 'parallel organisation activity'. This term implies that such activities do not replace the hierarchical activities of the organisation; rather, they go on alongside – in parallel with – them. However, time and resources are specifically set aside for them and all members of the organisation are involved. During this time, fluid, non-hierarchical, groupings form around emergent and previously half-noticed 'problems'. The members of these groups contribute in many different ways and a deliberate effort is made to recognise these diverse contributions. And staff are encouraged to work with other people engaging with similar problems both within the organisation and outside. Such collaboration generates new ideas and establishes and maintains a network of contacts to provide help and support when difficulties arise.
- ²² See Endnote 21.
- ²³ A simplified form of this map, or model, is available in Raven & Gallon (2010).
- ²⁴ These are reproduced in Raven & Gallon (2010).
- ²⁵ More examples will be found in Raven & Gallon (2010).
- ²⁶ See also Morgan (1986).
- ²⁷ For example, those contributed by Schön (1971), Deming (1980), Johnson & Broms (2000), Kohn (1969), Semler (2001) and Erdal (2008)
- ²⁸ Bookchin (2005).
- ²⁹ Those who are interested in the details may turn to Bookchin (2005) or Raven (2009).
- ³⁰ For example, Meadows et al. (1972, 2004); Raven (1995); Wikipedia 'Sustainability' entry.
- ³¹ See also Lane (1991) and Marks et al. (2006).
- ³² I would personally argue that ethics is mainly concerned with questions stemming from conflicts between the long-term social consequences of actions and short-term personal gains. Clarification of these issues thus falls within the remit of psychologists involved in evaluation studies. However, Flynn (2000) has provided us with an incredibly thorough treatise reviewing earlier thinking on this topic.

Open Dialogue: Authors' response to peer commentary

John Raven

MOST OF THE respondents to my paper suggest important improvements that might be made to the educational system ... But my argument was that *professional* competence involves asking why those things ... and many others suggested over the past century have not been done *and taking responsibility for doing something about it*. Asking this question leads, among other things, into the study of the networks of social forces which, in the end, turn out to be among the important determinants of human behaviour. It follows that, if, as we do, we are to claim to be experts at understanding and predicting human behaviour, we need to set about conceptualising, mapping, measuring, and harnessing these social forces.

But this is not the only thing we need to do. More obviously psychologically-based reasons for the neglect of the main goals of education include the absence of adequate conceptual frameworks for thinking about multiple talents, the classroom (developmental) processes to be used to nurture these different talents (i.e. idiosyncratic, motivationally-based, competencies) and means of giving pupils credit for possessing such qualities and teachers credit for having nurtured them.

Asking why we have not developed these thoughtways, tools, and procedures (which, as it happens, Spearman had urged upon us more than a century ago) again underlines the importance of seeking to conceptualise, map, and harness the social forces which regularly undermine well-intended social action. The most disturbing – de-railing – outcome of our work in this area is that this network of interlinked social forces constitutes a system in which it is impossible to

make single changes which will have the desired effects unless one understands the whole system. Otherwise the effects of the change will either be negated by the reactions of the rest of the system or have counterintuitive – and usually counterproductive – effects.

Richard Remedios was alone in challenging these arguments. Although I greatly enjoyed his paper he will perhaps forgive me if I fail to respond directly but instead do so via some comments arising from what Sue Hallam had to say.

It seems to me that Sue both underlines some of the points I was trying to make and at the same time misses them.

As documented in my starter paper, one of the things we know from work carried out by psychologists is that a clear majority of parents, pupils, employers, other adults, and those who have written about educational goals emphasise the importance of diversity and promoting the development of high-level competencies like the ability to understand and influence the workings of society. Their opinions are supported by studies of the qualities required in the workplace and those needed to function effectively elsewhere in society.

The problem is that, by and large, the so-called educational system does not deliver these outcomes.

The question is 'Why?'

Overstated, Sue's says it's the government's fault.

Right ... and wrong!

One thing that is right about that answer is that government actions are mainly a response to *sociological* demands. One of the functions of the so-called 'educational' system is to contribute to the manufacture

and legitimation of a divided society which compels everyone – including those who can clearly see the individual and social disbenefits of doing so – to participate in the destructive and unethical activities of which modern societies are so largely composed. I say 'destructive and unethical' because the cumulative effect of most of these activities is to destroy both our general habitat and individual quality of life. (We may note in passing that the educational system itself not only, as Laurie Thomas reiterates, destroys many important competencies but is a distinctly *unpleasant* experience for one-third to one-half of those who pass through it. It would seem to follow that one of the main latent functions of the system may be to teach people to tolerate a demeaning and largely self-destructive way of life and to accept that other people have the right to decide who they will be, what talents they possess (or lack), and, in general, to push them about.)

If, therefore, we are to contribute ... as we surely must if we are to claim to be ethical professionals ... to the kinds of actions to which our *psychological* work points, we will need to better understand, and find ways of harnessing or intervening in, these 'sociological' processes. This, somewhat paradoxically, means that, *as professionals*, we need to intervene *outside* what is currently taken to be our area of technical competence.

Many (like Richard) will argue that it is someone else's job to do these things. But it is clearly our job as *professional psychologists* to contribute to the job descriptions laid down for those to whom such tasks might be delegated (i.e. public servants and politicians), the staff-appraisal systems required to hold them accountable for doing these things, and development of the organisational arrangements that are needed to enable them to do their (redefined) jobs properly.

So passing the buck back to 'government', as Sue and Richard seem inclined to do, does not really absolve us from accepting that we have a professional responsibility for seeking to do something about the situation.

Another thing that is right about Sue's claim is that most of those who rise in traditional government structures are strongly predisposed to impose what they think is right on others, frequently in the face of evidence to the contrary. (The clearest examples of the lengths to which people will go to impose their will on others include the imposition of ideologies, religions, and 'moral' codes [particularly codes having to do with sex]. However, the predisposition to do these things is widespread ... so much so that it should perhaps be recognised as a pervasive undesirable human trait.)

One of our activities as *professional psychologists* has, therefore, to be to develop better* organisational arrangements for running society and, if we accept the results of the research briefly summarised earlier, more specifically, in relation to education, to develop means of recognising, nurturing, and catering for, diversity. Working toward more appropriate managerial arrangements for society basically involves extension of the activities that some psychologists already carry out in the domain of organisational psychology. In my starter paper I formulated the objective as being to contribute to the evolution of a better socio-cybernetic system for managing society. Once again, it is facile to argue that we should hand this job over to organisational psychologists. The processes required to manage schools and educational systems need to co-evolve with the evolution of processes which will enable teachers to manage multiple, individualised, personal-development programmes within classrooms. (Note that I did *not* say 'to manage 'learning' in classrooms'.)

* Such a statement raises the question: 'Better from whose point of view?'. My own answer is: 'Better from the point of view of the long-term public interest'. But, in any case, the scientific question remains: 'What are the short- and long-term, personal and social, desirable and undesirable, consequences of alternatives?'

If we are to project an image of ourselves as people who have the concerns and competencies required to undertake this work, we need to work *outside* what is currently understood as our domain of technical competence to influence the perceptions of others working in the area and the thoughtways of those who control funding and the organisation of the universities.

A third thing Sue is right about has to do with government response to public demand.

All my life the public have, time and again, demanded that 'something be done' about the intolerable state of the educational system. As we have seen, about one third of the population are all too well aware of its destructive and demeaning nature both from their personal experience and that of their children. And very many more know that most schools do not in fact offer the developmental experiences they often claim to offer (and which they would like them to offer). They know that the system – like so many claims of central government – is fraudulent.

Internationally, as is usual with command and control structures, government response to this demand has been to impose 'standards' and 'targets', to 'tighten up' on centrally decreed requirements that schools focus on what are presented as the traditional 'academic' goals of education (although, as expressed in schools, these activities do not, in fact, merit such a description), to prescribe what they believe to be teacher-proof 'educational' processes which will lead to the achievement of these goals (see John Hattie's [2009] meta-analysis of 500 meta-analyses of 'what works' in classrooms), to talk about the need to 'raise standards' defined in what amount to single-factor norm-referenced terms, and to intervene in the lives of 'failing' teachers and schools on the basis of scores on tests that are almost completely lacking in construct or predictive validity. As professional psychologists we have a responsibility to challenge all aspects of this process. We have expertise in

each of these areas. And, as mentioned earlier, one of the things we need to do is to find ways of contributing to the evolution of better governmental ... socio-cybernetic ... arrangements for running society. Once again, staking our claim to do these things requires us to work outside what is currently regarded as our domain of technical competence.

Sue notes the effects of the (international) government preoccupation with national tests and exams. What is interesting is that it was precisely to avoid these effects that Spearman argued that the tests from which his *g* had emerged (i.e. the tests traditionally used in schools) had no place in schools because a focus on scores on such tests by teachers, pupils, parents and politicians drives education out of schools. Unfortunately, as psychologists, we have not provided alternatives ... in part because doing so would require us to substitute a non-hierarchical, descriptive, 'measurement' paradigm analogous to that used in biology for the variable-based paradigm we have adopted from physics. But such an excuse, serious though it is, actually misses the point. The sociological processes mentioned earlier have been much more important than our infatuation with physics in leading psychology to neglect these activities. Society *needs* a single and unarguable criterion of merit to function as it does. 'Ability' (*g*) serves the purpose very well. Recognition of the value – nay importance – of multiple talents would undermine this process and is, therefore, to be strongly resisted¹.

The importance of these sociological functions in determining what happens in schools is indicated in the right-hand box in Figure 1 in my starter paper. However, as we have studied these processes, it has become clear that these forces have the future of mankind and the planet in their grip². If we are to survive as a species, it is therefore crucial that we should map, understand, and find ways of intervening in, them.

But now to come back to the self-perpetuating, self-reinforcing, 'change resisting' nature of this network. I am not sure that even Laurie Thomas, despite his references to self-organising systems, has got the point. The point is to study the outcomes of 'experimental' interventions in social processes in such a way as to clarify the nature of the systems processes that control the operation of society – and especially those which regularly undermine well-intentioned social action (and usually convert it into its opposite). (I should mention in passing that Laurie's use of the term 'learning' worries me. Many people have an excellent 'intuitive' understanding of the systems they are dealing with and often use that understanding to secure their personal advantage. Such idiosyncratic, tacit, knowledge constitutes our largest and most important pool of knowledge. Such knowledge is non-verbalised and specialist. It consists largely of knowledge of ways of doing things. These are grounded in the use of emotionally-based attractions and feedback.) It is the formal study of socio-cybernetic systems – and especially those that control our destiny (such as those shown in Figure 1) – that needs to be added. But Laurie is right: It is vital to understand that these are organic, autopoietic, self-organising, self-extending, and self-reproducing systems not only analogous to, but actually constituting, organic systems of the type most widely studied in plants and animals. These cybernetic systems are mostly non-hierarchical, involving multiple, interacting, recursive³, and mutually reinforcing feedback loops. I'm not sure that a greater emphasis on self-organised individual learning would nurture a predisposition to study these things ... but it just might – especially if you ask yourself how one might *evaluate* the development of a wide variety of idiosyncratic, and largely tacit, specialist knowledge and competencies in order to both give individuals credit for possessing these talents and teachers and institutions credit for having nurtured them⁴. (Inability to answer to that question indicates that we

are unable to deliver on our professional claims to be both able to assist schools and society manage the development and deployment of human resources or to do research which will contribute to 'evidence-based practice' in education and health care in a meaningful way.)

OK. So what would a *professional* response to collection of issues look like?

In fact, I have already answered the question: It would involve helping to clarify the ways in which multiple talents or competencies – going far beyond those enumerated by Gardner – can be nurtured and the outcomes recognised. It would involve contributing to ways of understanding, intervening in, and harnessing the network of socio-cybernetic forces which drive toward the kind of single-factor hierarchy that generally not only fails to deliver high quality⁵ of life but is destroying the planet in the process. It would emphasise the need to conduct more adequate studies of the social forces which have the future of mankind and the planet in their grip.

As noted, legitimising and securing funds for this work would involve working, through the British Psychological Society and as individuals, *outside* our domain of certified occupational competence. It would mean encouraging the Section to put pressure on the British Psychological Society and encouraging the British Psychological Society itself, through its institutional connections, to create a more appropriate image of our role in the educational system and society and to obtain the funding needed to carry out the necessary work. We need to see doing these things as central to our *professional competence because we need to do them in order to be able to do our jobs, as more narrowly defined, competently*.

Professional competence inherently implies working outside one's domain of certified technical competence in order to make it possible to do the things which need to be done within that domain. This paradox lies at the heart of what Schon describes as the crisis in professional competence.

I may provide yet one more illustration of the validity of this assertion, this time drawn from our research into effective education. *The outstanding teachers whose work we describe in 'Opening the Primary Classroom' could not have done what they did within their schools had they not spent an enormous amount of time outside those schools seeking to influence the social forces which would otherwise have prevented them doing what they did.* (They needed to influence parents' expectations, the demands and expectations of educational advisors and inspectors [and the criteria they applied], the significance attached to mandatory test scores by parents, politicians and administrators, the demands made by secondary school head teachers, and so on and so on⁶.)

It is far from irrelevant to note that, since we did this work, not only have research contracts been 'tightened up' to prevent researchers making or reporting such observations, all experimental schools in Scotland have been closed. Ofsted even made an attempt to close Summerhill – an attempt which would have worked (and has widely worked, in state schools) had not the parents concerned had the wherewithal to mount a legal challenge). And the Thatcher government deliberately implemented policies, contractual arrangements, and evaluation principles which have undermined the Universities' capacity for free enquiry.

Additional References

(Sources cited in the starter paper are not repeated.)

- Hattie, J.A.C. (2009). *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge, Taylor & Francis.
- Waddell, J. (1978). (Chairman). *School examinations*. London: HMSO.

Both effective educational activity and effective professional activity threaten the established social order. I have attended a number of meetings of Branches of the British Psychological Society where feelings of outrage have been expressed. But, time and again, participants have backed away from taking action. It would cost them their jobs.

And there we have it. Competence, **professional** competence, *inherently involves going beyond one's domain of certified technical competence*⁷.

The question now is: 'What are we as a Section, and the British Psychological Society more generally, going to do about it?'

And it is perhaps not without significance that this is exactly what we did *not* discuss in Preston.

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Endnotes

- ¹ This is beautifully illustrated in the Waddell (1978) report on school examinations. The committee noted that pupils had a wide variety of different talents which schools needed to foster and that employers need a huge variety of employees possessing diverse talents. The educational process must, therefore, cater for, nurture, and credential this diversity. This, they said, implied that we needed a wide variety of examination boards offering a range of methods, modes, levels and forms of assessment. (Levels of 'creativity' can not be assessed using the same procedures as those used to assess a knowledge of classical Latin.) These arguments were brought together in a single paragraph. However, after the report was last seen by the committee, a single short sentence was inserted into that paragraph. That sentence read 'The results will be expressed on a single scale of seven points in a subject area.' This, of course, negated everything the committee had said. It is not known who inserted the sentence, but its intent and effect are clear for all to see.
- ² See Figure 20.6 in my *New Wealth of Nations* (which is also available through the link: www.eyeesociety.co.uk/resources/diagram%2020.6.pdf) and subsequent work by Bookchin (2005) and Raven and Gallon (2010).
- ³ In the sense that effects determine their causes, although what happens is better conceptualised as a process of co-creation.
- ⁴ Most people think it is relatively easy to assess 'knowledge' and much more difficult to assess such things as emotional predispositions. In fact the reverse is the case. One can find out whether someone 'knows' – possesses some cognitive information or knows how to do – something you think they should know. But, as mentioned earlier, the important knowledge they possess is idiosyncratic, specialised (consisting of unique combinations of up-to-date specialist knowledge), and tacit (unverbalised and grounded in emotional sensitivities and concerns). It thus eludes conventional assessment. In contrast, many emotional predispositions are directly observable.
- ⁵ Marks et al., 2006.
- ⁶ It is not irrelevant to note that we could not have made this observation if we had not, as professionals, gone beyond classical prescriptions for how research should be conducted and beyond the requirements laid down in modern research contracts. The latter routinely prohibit researchers from undertaking work not specifically commissioned and reporting uncalled for observations. It follows that it is professionally (and ethically) unacceptable to agree to the terms of such contracts, thus drawing attention to another important topic on which the British Psychological Society should take a stand.
- ⁷ Interestingly, this is true for jobs at every level from operatives in factories and navvies working on railway lines to doctors, public servants, and bankers (see Raven, 1984; and Raven & Stephenson (Eds.), 2001).