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Commentary 1

THE author has skilfully put forward an argument expressing the frustration of many healthcare providers feeling somewhat attacked by the growing focus on concepts of postmodernism, complexity science and qualitative analysis in the literature. One cannot take issue with his conclusion that constructing simplistic, decontextualised arguments will misrepresent positivist and reductionist medical science. Equally, the same holds true for the theoretical perspectives the author himself is critiquing. The constraints of word length have perhaps contributed to Hopayian running the risk of committing the same mistake with the theoretical underpinnings of emerging views of health and illness. In regards to complexity science in healthcare, Sweeney clearly states that:

> *'It's not about debunking science, or relegating the contribution of science in medicine to the intellectual shredder.'*[1]

Rather, complexity science is about recognising that health and illness require a range of approaches, responsive to the unpredictable and idiosyncratic aspects of both the individual and society. A dispassionate review of the literature clearly demonstrates that complexity science does not seek to refute the phenomenal achievements brought about through applying reductionist scientific methods in medical research. What is contested is the linear dichotomy of reductionist thinking prevalent in biomedical thinking. 'If it were simple, word would have gotten round' (Derrida in [2]). Because health is not simple, more flexibility and less infighting is imperative.

Hopayian's essay serves a vital role in flagging up the unrest (perceived or overt) inherent in any challenge to the conventional way of thinking. Complexity theory offers a route for reconciling and legitimising the diverse range of theoretical perspectives currently applied to healthcare and helps clinicians avoid the counterproductive sparring inherent in either/or linear thinking. The myriad of interacting and idiosyncratic elements that make up health and illness require a range of explanatory models depending on the circumstances and context. The focus is on 'this', as well as 'that', and understanding the relationships that move systems in certain directions. Management strategies for influencing outcomes in complex systems focus on flexible simple rules as opposed to highly structured and micro-engineered solutions. The concepts of 'good enough vision', balancing between control and flexibility, safety and risk, valuing diversity and free flow of information, accepting paradox and dissent as opportunities for innovating new ideas, implementing small actions as opposed to one big solution and accepting the power of, and working with, informal organisational systems are all tools for effecting change in complex adaptive systems.[1,3-8] Developing simple rules that can be creatively addressed in ways that accommodate local context and circumstances is a philosophy clearly articulated by the NHS Modernisation Agency's statement of five simple rules[9]:

1. See things through the patient's eyes.
2. Find a better way of doing things.
3. Look at the whole picture.
4. Give frontline staff the time and the tools to tackle the problem.
5. Take small steps as well as big leaps.

The director of the NHS Modernisation Agency, David Fillingham, stated that: 'the NHS is the epitome of a complex adaptive system. Such systems do not always respond well to mechanistic formulae'.[10] Complexity science, and linearity and reductionism and positivism and the hypotheticodeductive model of science are all here to stay — it's just a matter of learning to use the right tool at the right time.

Cary A Brown

Commentary 2

I think Kevork Hopayian, for all his erudition, has got a problem. He is seeing legitimate attempts to improve the scientific understanding of reality as attacks on science itself. Many people, especially people working in general medical practice, find orthodox models inadequate to describe the subtlety, complexity and (in Iona Heath's sense[1]) the mystery of face-to-face human experience. This is important today because so many official initiatives and media attitudes are founded on a profoundly unscientific illusion that science can provide definitive answers to human problems. So attempts to improve the models are not merely legitimate but essential if science is to make progress. Hopayian provides here an example of the almost paranoid counter-response of those who see themselves as protectors of the sepulchre of science from heretical attack.

He talks repeatedly of 'straw men', but in truth it is he who is setting up ridiculous caricatures simply to knock them down. Gray in his *Lancet* paper[2] did not, by any stretch of the imagination, 'repeat the postmodernist rejection of science'. It is a simplification to assert that postmodernists 'reject science' anyway. Nor are there the slightest grounds in Gray's paper for saying that he would stand in front of an oncoming bus, maintaining to the end that it was no more than a 'social construct'. And nor would any of the other distinguished authors Hopayian attacks and patronises; Chris Burton, Tim Wilson, Tim Holt, Trisha Greenhalgh, and so on — a long list. No-one that Hopayian or we need concern ourselves with is suggesting that an external reality does not exist. But what sensible people are saying is that science goes on and on showing us that the

reality that does exist is more complicated than each generation thinks it is.

Similarly, Hopayian is admirable in his description of the scientific method, but utterly wrong to suggest that these methods are disputed by those raising questions about the adequacy of, for example, extrapolations from focused clinical trials (however randomised and meta-analysed such trials may be) to the complexity of human life. As Edward de Bono put it, the left front wheel of a motor car may be excellent, but it is not sufficient.

So this battle of straw men is far removed from the serious matters at issue. But because of the obscurity of the jargon employed it is also a dialogue of the deaf. 'Postmodern' for example, although I have used it myself above, seems to be a term permanently immune to comprehension. In Gray's paper, we find 'pre-modern' followed by 'modern', followed by 'postmodern', which makes a kind of chronological sense. But immediately we stumble into the following, '… the plight of US health care was examined with a recognition that in the move from postmodern to modern health care something had been lost.' So, now we are back to modern again! But doesn't every age think it is 'modern'? Isn't that what modern means? Oh … let's call the whole thing off!

Complexity theory is notoriously jargon-ridden, but Burton's *Postcard from the 21st century* with which Hopayian takes issue,[3] is actually an outstandingly clear explanation of its possible application to healthcare. And so is the *BMJ* article by Wilson *et al*.[4] Both are accessible on the web and I would urge readers to look at them and judge for themselves.

So we need a meeting of minds here, not a false dichotomy. There are enough religious wars in the world already. And we need clear, simple language, rooted in shared experience. Hopayian is, on this evidence, exceedingly able, and a testimony to the expertise that exists within the generalist excellence of general practice. But I think he needs to look at what the authors he takes exception to are trying to say, and then join with them and all of us in the real battle, in which we are allies, not opponents.

That battle is to find a defining line between the kind of 'mystery' which Iona Heath talks about,[1] and which is so desperately missing from 'official' models of medical practice, and the non-sense (or non-science) of both anti-science and pseudo-science. In my address on science to the College's 50th anniversary symposium,[5] anti-science and pseudo-science were the two heads of my sea monster Scylla on the one side, and the certainty of fundamentalist science was my whirlpool, Charybdis, on the other. Our task today is to steer a true course between these dangers, and we need people like Hopayian to help us.

James Willis

mike fitzpatrick

Expert patients?

'Doctors need to act on what they already know — that all patients are experts, however uninformed or misinformed they may be about health issues'.[1]

THIS exhortation in a recent editorial in the *BMJ* is palpable nonsense. If doctors are obliged to defer to patients' expertise, then what is the point of their medical training? If patients are the real experts, then why should they bother to consult doctors?

Yet this sort of celebration of personal convictions about health — right or wrong — over theoretical knowledge and professional expertise currently has a widespread resonance. It has the ring of the populist rhetoric favoured by the New Labour government in its concern to relate to the anxieties of the middle classes, while seeking to advance its 'modernising' agenda by disparaging traditional professions.

It is not surprising to find that the authors play a leading role in a Department of Health initiative 'to promote patient partnership'. But far from promoting partnership, this disingenuous approach patronises patients, degrades doctors and undermines doctor–patient relationships.

In September 2001, the Chief Medical Officer (CMO), Professor Sir Liam Donaldson approved a report (produced by a task force of which he was chair) promoting the notion of the 'expert patient'.[2] The report's self-conscious insistence that it 'was not an anti-professional initiative' raised suspicions that the knight protested too much and that doctors should fear the worst.[2] In fact, in substance, the expert patient programmes now being introduced by primary care trusts around the country, based on a model developed in the US by Professor Kate Lorig, have a fairly traditional pedagogical character.[3] They seek to develop the confidence and skills of people with chronic illnesses to improve their quality of life and reduce their demands on doctors (one of the programmes' claims to success is that they cut consultation rates).

But the launch of the 'expert patient' report took place at a time when the CMO was engaged in a series of wider anti-professional initiatives, notably in relation to the Bristol and Alder Hey inquiries. In December 2001, Professor Donaldson endorsed a report on ME/Chronic Fatigue Syndrome produced by a committee dominated by representatives of patients' groups after most of the clinicians on the committee had resigned.[4] Professor Donaldson emphasised that the particular approach to the problems of chronic fatigue favoured by patient activists would be foisted on the medical profession. This elevation of subjective experience and consumer choice over medical science and professional judgement signalled the government's determination to impose its wider agenda on the medical profession. It also revealed its willingness to use unrepresentative and unaccountable groups of self-proclaimed expert patients as a lever to squeeze doctors into line.

The CMO's 'expert patient' report skilfully put its central message in the form of repeating 'an observation often made by doctors' and other health professionals engaged in the care of patients with chronic diseases, that 'my patient understands their disease better than I do'.[2] This is fair enough as a self-deprecating jest or as a statement of recognition of the expertise achieved by some patients in managing complex regimes of medication or diet. But it cannot be taken seriously as a description of the prevailing balance of knowledge between doctor and patient in general.

A doctor working in any field of clinical medicine is the product of a highly competitive selective process and a prolonged and intensive period of education in the basic medical sciences and further professional training. Very few patients are in a position to become 'expert patients', if only because of limitations of time and energy. Campaigners against medical paternalism believe that it is patronising to suggest that doctors may know more about a patient's condition than the patient. But this is as absurd as the notion that any patient can readily acquire the information required to make important medical decisions by spending a few hours surfing the internet. The truth is that it is disparaging to medicine to suggest that expert knowledge and skills can be so readily acquired.

As one doctor put it, wisely, if unfashionably:

'To suggest that the doctor does not, at least very often, know best is to suggest that theoretical knowledge, prolonged training and long experience count for nothing. In other words, it is a position of pure irrationalism.'[5]

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