

Uncertainty, environmental policy and social learning

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This note puts the research project which led to this Special Issue in the context of developments in and around environmental policy over the past two decades, from the perspective of someone closely involved. It links political and institutional problems over sustainable development to the changing role and authority of science in contemporary society, and to the new kind of emphasis on social learning to be found in the papers that follow.

We have reached a stage where our societies need new thinking about the environment. That need goes deep.

There's now uneasy recognition, intellectually at least, that current trends in macro-economic development—unrelentingly energy-intensive, resource-hungry and damaging to non-human denizens of the globe—are sustainable only at an ever-more horrible environmental, and associated human, price. But the economic and political models which shape and govern everyday behaviour continue to corral most of us within patterns of expectation and dependency which make any serious change of direction all but unthinkable. Hence the widely observed 'value-action gap' in most of us: we know there's a serious problem, yet feel increasingly uneasy at our own personal inability to help mitigate it.

It is this *cultural* challenge to which, in my view, the research project providing the contents of this Special Issue was responding. Those involved were pursuing a richer understanding of the central environmental—economic concept of natural capital, as one specific and practical focus of the question: might it be possible to nurture fresh ways of thinking and feeling about the environment, of a kind which could foster practices encoding more authentically sustainable approaches within daily life?

For more than four decades, governments have been aware of the *problematique* of the environment. In the 1970s and 1980s, their efforts came to focus on a range of significant, but politically tractable, issues in the fields of pollution and land use. Air

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and water quality standards, new waste disposal practices, safeguarding of natural areas for wildlife and amenity protection, higher standards of energy efficiency, modest transport constraints and improvements, all were implemented relatively painlessly in many countries. This was what commentators like Burke (1997) have called the 'easy politics' of the environment—largely win-win situations, with few losers and low political costs. Central to these approaches in countries like the UK was the authority of 'sound science', as a means of generating legitimacy for political intervention.

At an international level too, such science-based approaches assisted action. One high point came at the Earth Summit of 1992. Three global Conventions—on Climate, Biodiversity and Forestry—were agreed, all of them grounded in a particular shared, largely scientific understanding of what was now at stake.

Environmental non-governmental organisations (NGOs) helped build popular support for such measures. Having been agitating since the late 1960s for government action, but forced through experience to become progressively more 'realistic' about what they could expect governments to deliver, they helped crystallise a dominant discourse, or paradigm, of environmental improvement increasingly shared by government and industry. In the UK, this took particularly graphic form in their participation in the various Sustainable Development Round Tables of the mid-1990s. Mainstream environmental NGOs, from having been radical standard-bearers, became part of an institutionalised policy community.

Meanwhile, beyond the Westminster village, the world rolled on. With the end of the Cold War, capitalism's vigour precipitated dynamic economic growth over a growing proportion of the globe. World trade burgeoned. Technological capacities multiplied. Populations in the developing world continued to expand. And as wealth increased, so also did poverty. The gaps between rich and poor continued to widen, with growing environmental burdens falling on the latter.

By the late 1990s, the overall price of this worldwide dynamism was becoming clearer to many—and not just environmental activists: fossil fuel-induced climate change increasingly evident, the oceans depleting, the non-human natural world ever more squeezed, urbanisation apparently unstoppable, transport gridlock more and more probable. The tools and concepts of environmental policy approaches forged in the earlier period are beginning to look alarmingly ineffectual in the face of such inexorable pressures.

What this signals is that we are now well and truly into Burke's era of the 'hard politics' of the environment—an era in which meaningful initiatives aimed at correcting destructive trends will incur costs to, and hence strong resistance from, major groups in society. Look no further than the UK's fuel protests of 2002, the proliferating local rows around wind energy development—or, most dishearteningly, the Labour Government's political *volte-face* on intelligent transport planning in 2000. The creation of political consensus around meaningful government action on matters of central environmental policy significance is becoming ever more difficult.

Compounding this difficulty is the shifting state of relations between science and contemporary society. In the present technological era, scientific innovation and its

translation into evermore pervasive goods and services have drawn government and scientists into increasingly ambiguous patterns of relationship. On the one hand, science-derived innovation is central to the country's material prosperity and competitive trade position, which is why governments fund it so generously. On the other, science continues to be relied on politically as the disinterested source of objective appraisal for regulatory purposes.

The tension between these two roles for science has become evident in the UK since the early 1990s. A series of science-related controversies—the Brent Spar oil terminal, BSE and GM crops—helped to bring into public focus the selectiveness and limited predictive power of scientific risk assessment, particularly (though not only) where leading-edge technological innovation is concerned. Social scientists have come to understand the extent to which the values and purposes of the bodies undertaking such assessments help shape and determine their findings—particularly with respect to the inevitable wider uncertainties and indeterminacies which may (or may not) come to be recognised.

Moreover, this is happening at a time when the potential *reach* of the new technologies—information technology, genomics, nanotechnology and who knows what else?—has become unprecedentedly great, and their pace and patterns of development all but impossible to anticipate, let alone for scientific experts confidently to 'assess'.

As a consequence, controversies like those surrounding GM crops in Britain over the period 1998–2004 have been leading to increasing focus on processes of 'public engagement' to assist political judgements in the face of uncertainty, rather than relying exclusively on the avowedly Olympian sound science of the recent past. In a growing number of fields of environmental policy significance—radioactive waste disposal, transport and biodiversity protection, as well as prospective new technologies—the confident certainties of the previous 'sound science' era are beginning to be replaced by a greater degree of humility towards the inevitable provisionalities and limitations of our knowledge.

This new realism about the strengths and limitations of science for public policy is deeply unsettling, but of great importance. It comes at a time when public disaffection from mainstream political institutions has reached new levels. Indeed, some would argue that these two phenomena are related—that past political claims for the comprehensiveness of scientific understanding in risk assessment have themselves contributed towards the public scepticism which now inhibits effective environmental governance. Be that as it may, there is now a new situation in which society's judgements about what courses of action will or will not prove to be 'sustainable' will demand more open public discussion and negotiation.

How well equipped are our public institutions—including our educational systems—for such developments? And more immediately, how well equipped are we as citizens for purposeful involvement in such processes of 'engagement'? There are grounds for concern. Difficulties over representation, discursive competence and democratic process beset many new deliberative fora, and their success in engaging the wider public with key issues around environment and sustainability remains questionable.

This points to an urgent need for the cultivation of new learning capacities across the full range of policy-making and decision-making about environment and technology. We need to generate more widely shared understandings, appropriate to the circumstances we now face, of how exploratory social learning relates to action in the face of future uncertainty. The contributions to this Special Issue are all, in their various ways, concerned with the development of such learning capacity. Attention to the natural capital metaphor and its underpinning of different models of sustainable development broadens out, through the sequence of papers, to address these more general concerns explicitly.

The challenge is a profoundly cultural one, with no guarantee of success. But the signs from recent stirrings in the political sphere are that it is now beginning to be acknowledged. The ideas aired here could help us to make progress.

Note on contributor

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Reference

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