



## Book Review

### Searching for Sustainability: Interdisciplinary essays in the Philosophy of conservation biology

*by Bryan G. Norton*

reviewed by Johan Hattingh

Norton, B.G. (2003). *Searching for Sustainability: Interdisciplinary essays in the philosophy of conservation biology*. Cambridge: Cambridge University Press.

... the idea of sustainability cannot be fully captured in the theories and concepts of any one of the diverse disciplines that contribute to environmental science. In particular, the idea cannot be captured by any science that is understood as an exemplar of objective, descriptive and value-neutral science, whether natural or social. The understanding of science as value neutral, it is now agreed, is at best an abstraction – an ideal that is never achieved by any real science ... (Norton 2003:457)

... sustainability has an inevitable normative aspect, which cannot be fully appreciated unless it is contextualized within an action-oriented situation in which real people compete, conflict, and deliberate about what to do in response to real environmental problems. (Norton 2003: 457)

These are two of the strong formulations with which Bryan Norton, Professor of Philosophy, Science and Technology at the School of Public Policy, Georgia Institute of Technology summarises the conclusion of his book with the rather subtle title of *Searching for Sustainability*. I say subtle, because with this title, Norton suggests that even after more than 20 years after the introduction of the terms 'sustainability' and 'sustainable development' into the public domain in 1980 with the IUCN's *World Conservation Strategy*, and in the wake of numerous world conferences on this theme, we are still grappling with their meaning and practical implementation. The converse of this point is, that we are still in the process of learning what sustainability and sustainable development means, and Norton more than competently demonstrates that this process is far from complete.

By any standards, these are provocative points to make, but Norton nonetheless makes them to debunk the claims of those in the environmental or economic sciences who think that they have finally captured the meaning of sustainability, and know exactly how to define, implement and measure it. A special target for Norton's critique is positivist science – or, the idea that science is a valueneutral enterprise in which we only work with hard facts, in which objectivity is fully guaranteed by the rigorous application of a strict methodology, yielding universal truths

that can stand for time and eternity and cannot be tainted by any evaluation or normative consideration – which is rejected as subjective and open to opinion and therefore relativism.

For Norton, there is an interpretive, even a normative side to all sciences, even in the natural sciences, and in these interpretations no fact is value-free. In this book, he demonstrates through various examples in a non-technical manner that facts are produced in processes of observation and interpretation in which a multiplicity of values, interests and perspectives intersect, and in which some seem to dominate others. Accordingly, Norton emphasises the importance of foregrounding these values, interests and perspectives, and to critically question any pretence to having a monopoly on the truth.

As such, these points are important to understand what Norton describes in this book, which is his own intellectual journey of more than a decade and a half as a philosopher and environmental ethicist, grappling with the meaning of sustainability. This journey of his started early in the 1980s when he first realised that environmental philosophy and ethics have to enter into serious dialogue with activists, managers, policy-makers and the various disciplines of environmental science if it wishes to make any meaningful contribution to finding solutions to real-life environmental problems.

Norton is, and always has been, an environmental philosopher, but he is extremely critical of a variety of environmental ethics that seeks to do nothing more than converse with itself, generating highly abstract meta-ethical theories about universal principles and ultimate values – something that could be interesting to other philosophers, but has little to say to those of us who are interested in a resolution of the concrete environmental problems of the world.

For Norton, environmental philosophy and ethics can serve a number of very important practical purposes, one of which is to clarify the language in which we articulate our environmental concerns and seek to resolve them. To achieve this, he suggests that philosophers and ethicists should focus on the public discourse that is already in place in the practical context of communities taking action to address environmental problems, and in this discourse to focus on the controversies and policy wars about how to define terms like ‘environmental significance’, ‘environmental risk’ and ‘sustainability’. This is important for Norton because it is in this public discourse that we can study the way in which a variety of multilayered, cross-cutting human values interact in our efforts at environmental-problem solving.

The second important practical task of environmental philosophy and ethics for Norton is that of building some bridges between the various interdisciplinary islands of the broad class of ‘environmental sciences’. This is because he found, from practical experience, that one of the major stumbling blocks in formulating sound environmental policy is that many of the social, natural and management sciences that study environmental problems have developed isolated discourses.

It is here that Norton’s academic interest in the philosophy of language and communication intersects with his interest in the philosophy of science – and where his emphasis on the need for dialogue between theory and practice, between science and action, intersects with the pragmatist notion of truth, according to which different theories and disciplinary paradigms can be compared with one another – and be evaluated – on the basis of their practical effects in the real world.

Taking us through the different phases of his own intellectual development since the mid 1980s as a philosopher with such a practical agenda in mind, *Searching for Sustainability* recounts what Norton refers to as his 'tentative interactions' (2003:2) with other disciplines, and what he learnt not only from scientists, but also from environmental management practitioners – embedded as they are in the maelstrom of environmental problem-solving.

What unites the 27 essays of this rather long book (is total length is 554 pages), is Norton's effort to establish the meaning of 'sustainability' in so far as it could be used as a unifying concept to anchor normative theories of environmental protection. In this book 'each paper taken individually, tells one aspect of the story of sustainability from a given disciplinary viewpoint, clarifying value issues as they arise within the context of specific policy-relevant scientific disagreements that emerge within management conflicts' (Norton 2003:3). Taken together, these essays form a rich interdisciplinary tapestry that can help us to form a richer multidisciplinary approach to sustainable living.

*Searching for Sustainability* is divided into six sections that are clustered around a central theme. In each section, Norton presents us with a number of essays in which the trajectory of the evolution of his own ideas about that theme is followed across time, demonstrating how these changes were brought about by engaging with more and more disciplinary vocabularies.

In the first of these sections, Norton chronicles his changing approach to philosophical problems, demonstrating how he moved away from the ideal of environmental ethics as a meta-ethical discipline and redefined it as a pragmatic philosophy of policy discourse. In a series of five highly revealing essays in this section, Norton demonstrates how he discovered pragmatic dimensions in the work of Aldo Leopold, one of the founders of environmental ethics in the USA, and how a pragmatic approach – that moves beyond abstract questions and arguments about the general nature of environmental value – can help us to improve communication, cooperation and problem formulation in the search for sustainable policies in particular situations.

To widen the scope of his pragmatism, Norton turns in Section II to a discussion of science, policy and policy science, focusing in particular on the 'problems of cross-disciplinary communications that hinder environmental policy discourse and decision making, denying decision makers the integrated science they so desperately need when the time for judgment and decisions is at hand' (Norton 2003:4).

In Section III, Norton enters into dialogue with economists, arguing that different paradigms of economic thinking exist, and that some of these paradigms (e.g. neo-classic economics) are just not able to take on board the wider social and ecological considerations that we need to formulate and implement sustainable policies.

Scale and sense of place values are the central themes of Section IV, where Norton asks, from the vantage point of different disciplinary perspectives, how we can sort out the multitude of clashing perspectives, interests and values that characterise environmental disputes. In what is arguably the most complex set of essays in this book, Norton makes the important point that the science of ecology provides us with a means (hierarchy theory) to represent environmental problems in terms of multi-scaled models, thereby laying the basis to differentiate between different temporal and spatial scales that are important for social values, and also for dispute resolution.

Building on the insights of hierarchy theory, Section V is devoted to a discussion of elements of a philosophy of sustainable living. Practical ethics comes into focus here in one of the essays in which the meaning of the idea of caring for nature is discussed with special reference to animal stewardship. In an essay focusing on the values informing the Earth Charter, Norton asks the question: Can there be a universal earth ethic? The third essay in this section addresses the issues of global ethics with reference to international equity and sustainability. Throughout this section, Norton emphasises the importance of a plurality of ecologically scaled values, and is critical of standard, single-value approaches to defining sustainability and our obligations to others – whether they are future human beings, other humans living now or other living entities such as animals.

In the last section of his book, Norton turns to the very practical question of environmental evaluation. Pulling together the various multidisciplinary and multiscale threads of his argument, he argues that there are limits to the quantification of the value of biodiversity, and that we need a new approach to environmental evaluation. In this new approach, he argues, we should build on what the various disciplines of the environmental sciences can provide us with, and take seriously the multi-scaled plurality of values that exist in societies as they relate to history, culture and notions of what we owe future generations.

What does this rich texture of perspectives and critical dialogue about the meaning of sustainability amount to for the practice of environmental problem-solving? It would be an injustice to the scope and depth of Norton's book to try to capture this in one line, and also because he concedes that the experience of one person can never be definitive. However, in his own words, referring to the need to recognise the variety of perspectives in the public discourse about environmental policy, Norton summarised it as follows:

If we become reflective, it becomes possible to learn from these differing viewpoints, allowing us to create understanding collage-style, recognising the strengths and weaknesses of various types of analyses, sifting and integrating insights from specific sciences. ... People from multiple disciplines, if allowed to speak in abstractions to each other, will talk past each other because of the assumptions that shape their disciplinary perspective. If, however, the same individuals coming from multiple disciplines, focus their shared attention on a real problem or crisis – how best to characterise it, what causes it, and what they should do about it – the multiple perspectives become multiple resources for envisioning new models and new solutions. (2003: 6)

To achieve this end, Norton has come to see the policy process as an iterative process. As a useful fiction, he proposes that policy choice should be viewed as embodying two phases: an action phase and a reflective phase. In the action phase 'we consider what to do, given adopted goals, current rules and laws, and current knowledge'; in the reflective phase 'we reconsider goals, reconsider indicators and monitoring practices, and consider evidence from recent management interventions' (Norton 2003:7).

For Norton, this alteration between action and reflection creates a space for environmental philosophy and ethics to adopt a new, practical problem-oriented approach; and at the same

time for science to identify and call into question its (often hidden) disciplinary assumptions. But, above all, this alteration between action and reflection makes possible what Norton refers to as adaptive management. Adaptive managers, he argues, are committed to experimentation based on the best insights of the environmental sciences – and to the ongoing formulation and reformulation of both management models and management goals, taking as their point of departure that cultural and natural systems should be modelled in interaction with one another on multiple scales of space and time, and orienting themselves to address place-based concerns of communities about resource use and its impacts (Norton 2003:517, 522, 523).

With this in mind, it becomes clear why Norton does not endeavour to provide us with an ultimate definition of sustainability. He rather would like to equip us with the intellectual tools and strategies of social learning that would enable us to chart a course towards sustainability that will tend to preserve valued place-based features, rather than destroy them (Norton 2003:544).

Written in a clear, non-technical language that strives to realise ‘the transdisciplinary, ordinary language discourse in which scientific knowledge and social evaluation must be integrated if we are to find a viable environmental morality’ (Norton 2003:8), this volume of essays will appeal to those who are frustrated with the abstract approach of mainstream environmental philosophy and would like to see how one can make philosophical and ethical analysis practically relevant to resolving real-life environmental problems.

In the last instance, I believe that Norton’s *Searching for Sustainability* is also a challenge to us here in the southern part of the continent of Africa to become more reflective about our own processes of environmental problem-formulation and -solving; to transcend our own territorial wars between the different environmental sciences with a view to finding a public discourse in which we can learn from one another, and formulate new goals with new justifications that we can experiment with and learn from in the practice of environmental management.

In this process of learning, Norton’s book can serve as an invaluable field guide, because the intellectual and political battles that he has fought on the North American continent are not dissimilar to the ones that we fight in Africa with a view to environmental problem-solving.

**Other books by Bryan Norton include:**

*Why Preserve Natural Variety?* Princeton, N.J.: Princeton University Press. 1987.

*Toward Unity Among Environmentalists.* New York: Oxford University Press. 1991.

See also the searchable bibliography of the International Society for Environmental Ethics at <[www.phil.unt.edu/bib/](http://www.phil.unt.edu/bib/)> for secondary sources about Norton’s environmental pragmatism.

***Note on the Reviewer***

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