

**Sustainability And The Social Sciences: A Cross-Disciplinary Approach To Integrating Environmental Considerations Into Theoretical Reorientation. Edited by Egon Becker and Thomas Jahn, London and New York: Zed Books (1999), 336 pp.**

**Reviewed by Jon Barnett, Macmillan Brown Centre for Pacific Studies, University of Canterbury, New Zealand.**

Since the publication of the World Commission on Environment and Development's landmark report *Our Common Future* the concept of sustainability has become widespread in application and powerful in influence. *Sustainability and the Social Sciences* stems from the widely shared understanding that the subject of sustainability inhabits an "unexplored borderland that cannot be appropriately investigated either by the social or natural sciences alone" (p. 3). However, thus far research on sustainability has tended to accentuate the philosophical differences between the biological, physical and social sciences, leading to a failure to harness the potential power of interdisciplinary research. This problem of interdisciplinarity is deep and complex, for even within the social sciences there are competing epistemes, emphases and understandings of society-environment interactions, and it is in this context that the sixteen chapters in *Sustainability and The Social Sciences* have been written.

The editors of *Sustainability And The Social Sciences* do not see sustainability as a unifying paradigm for the social sciences, but more appropriately see it as a "generator of problems" to which the social sciences can contribute (p. 3). The most important aim of the book, then is to "explore the potential contributions of the social sciences to the sustainability debate" and then to fold this back into the social sciences by outlining sustainability's implications for the social sciences themselves (p. 3). The editors see sustainability as a debate - and by implication a contested concept - thus the book also seeks "to clarify the meaning and implications of sustainability from a social science perspective" (p.3). The book certainly does explore the present and potential contribution of various social sciences to sustainability. However, although most chapters explicate the ambiguities of sustainability the book does not really clarify its meaning, nor is the aim of examining what sustainability in turn means for the disciplines particularly well addressed.

In many respects the book's aims misrepresent its most valuable contribution which comes not from what it says about the sustainability debate, but from its unique synthesis of theoretical and more applied approaches to sustainability. With a couple of exceptions, this book is a collection of well written, accessible and stimulating chapters which individually and collectively balance theoretical approaches to sustainability with plausible ways forward. *Sustainability And The Social Sciences* also embodies three key ingredients for successful cross-disciplinary research: it offers a common focus (sustainability); almost all of the authors explain all their concepts and assumptions in an honest and accessible way; and deep-seated stumbling blocks such as the danger of applying natural science metaphors to social systems (Sachs in chapter 2) and biological reductionism (Acsehrad in chapter 3) are brought into the open. However, a frequent problem with discussions of interdisciplinary research is the way knowledge and its generation is categorised, with much discussion of the demarcation of knowledge rather than the knowledge itself. To some degree this book also suffers from this problem.

Even though it speaks to the social sciences more generally, *Sustainability And The Social Sciences* is nevertheless structured largely around disciplines, namely: Economics, Geography, Philosophy (feminist), Political Science, Psychology, and Sociology. There is no representation from Education and Law, and more inexplicably from Anthropology and History. The chapters from interdisciplinary paradigms such as Development studies (Sachs chapter 2), Social Ecology (Guha chapter 6), and Ecological Economics (Martinez-Alier chapter 7, Gowdy chapter 9 and arguably Paehlke chapter 13) are the most informative and provocative in this book. This is testimony to the idea that to restrict oneself to 'a' discipline is to limit explanatory capacity, for true knowledge of important problems does not respect disciplinary divides.

In response to the neo-classical economic paradigm that has itself exacerbated environmental damage has come a new kind of ecological economics which now dominates the study of sustainability, and which is well represented in *Sustainability And The Social Sciences*. The three chapters by Martinez-Alier, Gowdy, and Paehlke demonstrate the effectiveness of ecological economics in the study of sustainability. Martinez-Alier's excellent chapter displays a comprehensive knowledge not just of his own field but of all the social sciences. He makes clear

the case that ecological economics is a broad systems-oriented field of study which includes both physical and social systems. On the subject of interdisciplinary approaches to sustainability he is most thoughtful, calling for an “orchestration of the sciences”, where “contradictions and incompatibilities would be addressed, instead of dismembered into the different departments of the universities” (p. 136). The relationship between neo-classical economics and ecological economics is clearly explained in the chapter by Gowdy, who argues that the negative effects of neo-classical economics are less the fault of the theory and more the fault of the practitioners. Like Martinez-Alier, Gowdy displays a substantial knowledge of other disciplines and of the history and assumptions of his own field, making for an accessible and highly informative read. Of the three economically-oriented chapters, that by Paehlke, on environmental valuation, is the least compelling, in part due to its narrow and overly economic focus on instruments and methods for measuring sustainability.

Sustainability And The Social Sciences does not give the political dimensions of sustainability the attention they deserve. The ostensibly political science chapter by Choucri only superficially mentions the role of power in sustainability issues, with the only substantial focus on this coming in the excellent chapter by Guha who writes on environmental conflicts in India. Guha’s is the best chapter of the book. He writes on traditions of social-ecological research in modern India. Underlying this stimulating and purposeful chapter is the author’s obvious ability to “pick up and apply the necessary scientific knowledge” himself (p. 109). Guha has an approach which enables the coalescence of powerful abstract concepts with grounded experience to produce understanding and solutions which take account of scale-varied processes from local to global. Guha calls this approach ‘social ecology’ which has its foundations in sociology and social anthropology. Social ecology is an environmentally oriented sociology which studies the relations between the ecological infrastructure and culture, the polity, social structure and the economy.

In addition to Guha’s chapter in Sustainability and the Social Sciences, the chapters by Reboratti and Acselrad tackle the problem of scale in sustainability. Until recent times, as Reboratti notes, the human impact on the environment was small scale and fragmented. However, as a result of the industrial revolution and the large-scale use of fossil fuels and resources there are now truly global environmental problems, the most obvious of which is climate change. These are multi-scale problems traditionally studied within disciplinary and scale-bounded contexts, as Reboratti observes, “each perspective has its corresponding scale, a relation between the real size of things and the virtual size employed for analysis” (p. 219). Thus the incomplete understanding that results from the disaggregation of disciplines is compounded by the structuring of knowledge according to imagined hierarchies of scale.

There is a psychological dimension to sustainability which rarely connects with the more proliferous ecological, economic, development and resource management based dimensions. One of the strengths of Sustainability and the Social Sciences is the inclusion of Werner’s chapter on this subject, which serves as a fascinating and convincing juxtaposition to the predominant approach of changing people’s behaviour through market mechanisms. Werner instead suggests that there is an array of equally important psychological (and social) factors that can motivate sustainability behaviour. In terms of applied policy value this is perhaps the most useful chapter of the book.

In his chapter on sustainability and sociology Michael Redclift is disparaging about what he calls “the dominant tradition in sociological thought about the environment: social constructionism” (p. 63). This discussion is a veiled realist-materialist counter-attack against an assumed ontologically threatening ‘deconstructive’ and ‘relativist’ agenda. Redclift does not define what he means by these terms, seemingly using them as pejorative euphemisms for the word he dare not use - postmodernism. However Redclift’s sustainability discourse is rooted in science more than social theory. He fails to grasp the significance of the understanding of ‘sustainability’ as a social construction and this makes his chapter the least helpful of all in this volume. Ironically, I found Braidotti’s feminist postmodern chapter on ‘sustainable subjectivity’ to also be unhelpful, largely because it seems excessively removed from the largely material-based concerns of ecological sustainability. However, Braidotti at least has the humility to refrain from attacking schools of thought and authors she does not understand.

Within the covers of Sustainability and the Social Sciences lie some clues which can help advance an interdisciplinary and more encompassing research programme on sustainability. As a practical way forward there seems merit in Martinez-Alier’s call for an ‘orchestration of the sciences’, that is for a meta directory of approaches to sustainability. It is in this regard that the diverse chapters of Sustainability and the Social Sciences makes a small but valuable contribution.