

Environment and Sociology: The State of the Debate

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Irwin A. 2001. *Sociology and the Environment*. Oxford: Polity Press.

Littig B. 2001. *Feminist Perspectives on Environment and Sociology*. Harlow: Prentice Hall.

Spaargaren G., Mol A., and Buttel F.H., eds. 2000. *Environment and Global Modernity*. London: Sage.

Just before the events of 11th September, President George W. Bush initiated a controversy on the issue of global warming, by denying that the problem existed and by withdrawing from an international agreement concerning its prevention. At the same time as this, the UK rural economy was being devastated by agricultural disease. Environmental risk is now front page news.

In this regard, the volume edited by Spaargaren, Mol, and Buttel might be regarded as timely, in that it provides a useful overview of the main literature and debates in the field of environmental sociology. The collection is based on a regional conference of the environment research group of the International Sociological Association, and is one of several "overviews" of the literature in books and journals over the last few years.

Although the book is not subdivided in any way, it is possible to loosely identify four main themes. Firstly, there are attempts to map out the approaches to environmental sociology, and identify the underlying "axis of disagreement" of the differing theoretical schemas. From these axis, three distinct debates emerge from the chapters in the collection. The question of the extent to which classical social theory can offer any insights into global environmental issues is a major area of contention. A second debate, which has been prominent in the literature for some time, concerns the extent to which questions of environment are socially constructed. However, the main business of the book concerns the theory of ecological modernization, of which two of the editors are among the main developers, and much of the collection concerns expositions and critiques of this approach.

The volume plays down the matter of disagreement and debate though. The stated aim in the preface is to find common ground, both within sociology and between other social science disciplines. The contributions are therefore not ordered around themes. The introduction, written by the editors, attempts to join these diverse and contradictory approaches into a seamless whole. While very few introductions of collections are able to achieve this anyway, the collection might have been more readily understood if the debates had been presented as such, especially since the debates in this field are of particular importance, and the disagreements tend to follow the usual fault lines of the discipline.

The contribution of Eugene Rosa shows this up well. The chapter could best be viewed as an attempt to "map out" the theoretical approaches to environment. The axis on which he maps the various approaches are firstly a social/individual continuum, and also a realist/idealist continuum; which are fairly standard social science divisions. Indeed Rosa identifies four orthodox traditions of sociology with the four pairings of these axiological elements. The Marxist/Weberian tradition is identified as social and realist, whereas the Durkheimian tradition is social and idealist. The phenomenological tradition, Rosa suggests, is idealist and individualist. The approach of rational action (which Rosa associates with the utilitarian tradition) is realist and individualist.

These axes are employed by Rosa to situate the approaches to the analysis of risk. The approach of Giddens, Rosa suggests, tends towards a social/idealist combination. He believes it has a macro Sociological approach to cultural analysis, although this is internalized into individual social actors (p. 87). Rosa also notes Giddens' concern with globalization, what Giddens terms social relations, which link distant localities, in that local events are no longer separable (Giddens 1990, cited in *ibid*). This creates a world of interdependence, which will in turn lead to common cultures, which are "textured with" common risks and anxieties, of which environmental risks are at the forefront.

Giddens might well reject the individualist/social continuum that Rosa suggests though. This was, after all, rather the point of structuration theory. However, Rosa believes that an orientation towards one or the other is inevitable. In spite of the best intentions, if theorists "use social forms independent of individual actors," such as social structure or shared culture or rules, as Giddens indeed does, this biases analysis towards the macro (social) level (p. 88).

Rosa also places Beck within a social methodology, although with a more realist ontology than Giddens, which would correspond rather more with a Marxist orientation (p. 89). Beck attempts a reorientation of the classical traditions however, in that whereas industrial society was concerned with the distribution of "goods," contemporary society is concerned with the distribution of "bads." This necessitates a reorientation of social institutions, in particular a move away from class to risk stratification, and a distrust of a technocracy, which has exposed society globally to massive risks. This new orientation to social organization is what Beck terms "reflexive modernity."

However, as Rosa points out, Beck's work does go beyond the Marxist/Weberian approach, in that it also contains a political theory, the theory of sub-politics. Rosa therefore views Beck (and to an extent Giddens) as moving away from a social (macro) methodology. We will return to this idea of theoretical "movement" shortly.

Rosa places social constructionist approaches in the idealist/individualist pairing. He uses as an example the work of Brian Wynne, but it would also cover much of the social studies of knowledge school, as well as authors such as Hannigan,¹ who considers the nature of *claims* about the environment. Indeed, Yearley suggests something of an agnosticism concerning these claims—that sociologists should limit themselves to the study of the process whereby such claims are evaluated, and attempt no such evaluation themselves.²

Rosa suggests the final pairing, individualist/realist, corresponds to a utilitarian tradition, and puts rational choice theory (called rational actor paradigm for some reason) as an example of this approach.

While this chapter does provide a useful guide to the terrain of environmental sociology, the mention of utilitarianism and rational choice theory, and the complications added by theoretical "movement" give an indication of how we might go about going beyond a simple mapping out of the theoretical positions towards an analysis of the substantive theories. Rosa admits that any notion of reconciliation between the theoretical approaches is unlikely, and suggests "meta rules" to enable comparison. While we await the outcome of research that is promised by Rosa, this does seem rather a case of infinite regress. By what rules would the meta rules be judged? *Quis custodiet ipos custodiet?*

Perhaps an alternative approach is possible. What may be more revealing is how social theories deal with the opposite ends of the two continuums. I would suggest that while each theory does have its roots in one of the elements Rosa outlines, in fact all four bases do have to be covered. Both ideas and activity require elucidation no matter what ontology is ultimately posited, and the relationship between the social and the individual also requires explanation no matter what methodology is utilized. That is to say, the various theoretical approaches will require both a principle of operationaliation/situation to cover the ontological continuum, and a principle of aggregation/diffusion (micro-foundations, using Rosa's terminology) to cover the methodological continuum. An examination of the principles employed to these ends is, I suggest, a useful place to begin scrutiny of the theoretical approaches.

Rational choice theory is a good example of the merit of these axes. Rosa claims this approach is in the utilitarian tradition, and is a realist/individualist theory. Utilitarianism employed a hedonist psychology to claim a felicific calculus; the pleasure/pain principle was the "springs to action" of all individuals.

1. Hannigan 1995.

2. Yearley 1991, 47–52.

The aggregating principle was the marginal utility theory so well known from modern economics.

By analyzing the aggregation principle of this approach we can provide an analysis of the theory. This author would suggest that both the psychology and the aggregation principle of utilitarianism and the modern rational choice theory are flawed. I have outlined these flaws in greater depth elsewhere,³ and Rosa has a section on the shortcomings of the rational actor paradigm (p. 79 ff). We will see that this is of particular relevance to later discussion of ecological modernization. In a similar manner, social constructivists are often attacked with the claim that they adopt a totally relativist ontology, and so are unable to make any judgments regarding competing claims to environmental knowledge. That is, they are commonly criticized on the grounds that they posit no “springs to action” whatsoever.⁴ We will consider this criticism later. In the same vein, Giddens, for example, might be criticized for ignoring the distributional implications of his theory—a critique of his microfoundations. Beck and Giddens are also criticized for their ontology by Freudenberg for drawing a distinction between the natural and the social. Again, more on this later.

As well as providing a useful map to locate theoretical approaches, Rosa’s article also suggests that the classical traditions may have some utility in an analysis of the sociology of environment. However, this does not follow the received wisdom of Dunlap and Catton.⁵ Buttel refers to the developments in environmental sociology of the latter part of the 1970s as a “second stage” of environmental sociology (p. 18). This period saw the emergence of Dunlap and Catton’s critique of mainstream sociology, and their call for a “new environmental paradigm.” They claimed that by ignoring nature and the environment, orthodox sociologists somehow viewed the human race as “exempt” from the constraints these imposed, and that an environmental sociology would need to be formed outside of the orthodox sociological paradigm.⁶ Furthermore, environmental questions need to be placed at the very center of an entirely new approach to social thought, which focused on nature rather than ignored it.

The critiques raised by Catton and by Dunlap concerned both the tendency in sociology towards social constructivist accounts of (social) reality⁷ as well as the idea that “social facts can be explained only by other social facts.”⁸ Indeed Catton claimed that the very pressure of the physical limits of the environment rendered the idea of social construction obsolete.⁹

The chapter by Buttel is ostensibly an examination of the utility of classical theory, but it also serves as an historical or chronological account of the de-

3. See Mulberg 1995.

4. See, for example, Dunlap and Catton 1994, cited in Burningham and Cooper 1999, 300.

5. Dunlap and Catton 1979.

6. Catton and Dunlap 1978. See also Hannigan 1995, 9.

7. See Catton 1972.

8. Dunlap and Catton 1979, 244.

9. Catton 1972, 437.

velopment of environmental sociology. Buttel's claim is that although elements of the classical approach have proven useful—as Rosa demonstrated so well—the “overall thrust of the classical tradition was to downplay ecological questions” (p. 19).

Buttel's main thesis¹⁰ is that although some elements of classical sociology did contain concepts or methodological approaches that were, in Dunlap's phrase “exemptionalist,” nonetheless there is a discernible classical environmental sociology (p. 20). The chapter gives a brief overview of the classics' approach to and discussion of the environment.

Buttel points out that Weber used an evolutionary logic that has the potential to bridge ecology and sociology, and that Weber's notion of rational action can be used to analyze ecological irrationality. Buttel also points out the evolutionary approach was also used by Durkheim, and concepts of human ecology were incorporated into the evolutionary pattern by him (p. 21). The main aim of Durkheim, however, was to show how social facts could only be explained by other social facts, in order to distinguish social science from physical science. While society is a part of nature, it also has a reality of its own, and cannot be said to be “above” nature.¹¹ What is regarded as important is how society views nature, not what nature is “really like.”¹²

However of all the classics the Marxian tradition seems the most obvious choice for examples of environmental concern. While critics may point to an inherent pro-industrialism,¹³ Buttel suggests that Marxist materialism entails a conjunction of humans (who define themselves, of course, in terms of social production) and nature. Järvikoski points to the *Economic and Philosophical Manuscripts*, where Marx outlines how man's [mensch] “physical and spiritual life is linked to nature” since “man is a part of nature.”¹⁴ Humans develop themselves in their transformation of nature.¹⁵ As Foster puts it, while Marx had written that “Labour is the appropriation of nature for the satisfaction of human needs”¹⁶ the point was that “the actual activity of Labour was never independent of nature's own wealth-creating potential.”¹⁷

Indeed, “nature” was a part of humanized practice, which can only be separated out in abstract thought. It was only under capitalism, according to Marx, that nature was regarded as an object for appropriation.¹⁸ That is to say that Marx's earlier writings (pre-1845) “tended to reflect both materialist and emancipatory postures” (p. 21). In Buttel's view, environmental social science theories tend to incorporate both these elements (ibid). Indeed, one of the

10. See Buttel and Humphrey 1987.

11. Järvikoski 1996, 79

12. Ibid., 81.

13. See Habermas 1984; and Goldblatt 1996.

14. Cited in Järvikoski 1996, 74.

15. Ibid., 75.

16. Marx 1844.

17. Foster 1999, 380.

18. Marx 1844, 76.

themes of the work of Engels was the question of environmental degradation and pollution.¹⁹

The idea that the classics ignored nature and the environment is therefore not entirely borne out. Indeed it has been suggested in counterpoint that in fact that tendency to disregard nature occurred more in later mainstream sociology than in the classics,²⁰ and indeed there are in particular many examples of Marxist authors addressing environmental questions.²¹ Furthermore, it has been pointed out by many authors that the imperative for classical sociology was to set a boundary for social questions, in order to separate them from physical science theories that claimed causal precedence, in particular early biological and psychological theories.²²

In addition to challenging the received wisdom concerning the classics, we could also reconsider Dunlap and Catton's vision of a new environmental paradigm. It is far from clear what such a new paradigm would actually look like. The new paradigm would almost certainly look nothing like the old, and would presumably involve new ways of practicing sociology. If not the classics, then what?

Curiously enough, in his short contribution to the collection Redclift explicitly endorses Goldblatt's view regarding the lack of utility of the classics, claiming that

It is the contention of this contribution that . . . the great names of classical social theory offer us very little . . . instruction in how to understand global environmental changes . . . They also offer us no more than a few insights into the relatively new world of global environmental policy-making (p. 160).

This is in apparent contrast to his writings in 1994, when he states that "analytical approaches to the environment can be enriched by paying attention to the traditions in which classical sociology was forged."²³ As I understand the position, the argument is that we need to go beyond the particular issues that the classical authors were grappling with at the turn of last century, but that the general traditions are still useful. Alternatively, it might simply be that Redclift has changed his mind to a greater or lesser extent, but certainly his contribution to the collection under review is based upon fairly easily recognized themes. Indeed, Redclift begins by stating a classical sociological question; "how are social impulses internalized and communicated?" since the concern of Redclift is to examine why global environmental management is ineffective (p. 151). Redclift's vision is also reflexive however, in that he also believes that knowledge of the environment can shed light on social theory.

19. Järvikoski 1996, 77.

20. Järvikoski 1996, 82.

21. For a brief outline of some of these approaches see Goldman and Schurman 2000, 565 ff.

22. Goldman and Schurman 2000, 564. See also Benton 1994, 28.

23. Redclift and Woodgate 1994, 51.

The issues that Redclift touches on would be familiar to anyone conversant with current affairs. He questions the current agenda of economic growth, and outlines the devastation caused by pollution, particularly in the Third World. Redclift links this directly with economic globalization (p. 153 ff), both through the relocation of pollution sources and diffused environmental impacts. These trends have been intensified by the international division of labor and the mobility of capital, according to Redclift. Furthermore, this global economy is managed by a small oligarchy of powerful decision-makers (p. 155). In this sense, Redclift suggests, globalization is territorial. In addition, Redclift explicitly raises the question of equity. Equity affects ideology as well as material consumption, which in turn will affect overall support both for environmental conservation in general, and for the particular form which action or conservation should take. Of course, both equity and ideology are classic concepts.

In terms of the two theoretical axes discussed earlier, the dissemination principle of Marxism can therefore be seen to involve an as it were top-down approach involving the ideology of capitalism. Its operationalizing principle is actually a form of limited social constructionism.

It is precisely these themes of ideology and equity that are problematic for proponents of the ecological modernization approach. Unfortunately there is no direct engagement between Redclift and the main proponents of ecological modernization, namely Spaargaren and Mol. The critiques of ecological modernization theory that are contained in the volume come from the field of environmental politics, in the chapter by Blüdhorn and the chapter by Leroy and van Tatenhove. There is also an empirical study of Lithuanian environmental policy by Rinkevicius.

Ecological modernization theory broadly suggests that continued modernization, industrial development and economic growth is not only compatible with environmental protection, but is actually the best way to avoid environmental degradation. That is, to say

An ecological modernisation perspective hypothesises that while the most challenging environmental problems of this century . . . have . . . been caused by modernisation and industrialisation, their solutions must necessarily lie in more—rather than less—modernisation and ‘superindustrialisation’.²⁴

Ecological modernization theory aims to provide both an explanation of current global environmental problems from which policy prescriptions can be obtained and a methodological program for the empirical analysis of environmental effects. The proponents of this approach suggest that the pessimistic views of the future are misguided, and that the problem of environmental degradation has its solution within the present industrial social complex utilizing the current economic and social institutions. Ecological modernization is there-

24. Buttel 2000, 61.

fore in essence a reform program.²⁵ Mol²⁶ outlines five major themes of ecological modernization:

1. The changing role of science and technology.
2. An emphasis on markets as change agents.
3. A de-emphasis on the importance of the nation-state.
4. A change in the attitudes of new social movements towards a reform orientation.
5. An environment-oriented ideology and discourse.

According to Spaargaren and Mol, the ecological modernization approach emerged as a result of debates with Marxists in the 1970s, and particularly with what they call de-industrialization theories.²⁷ These theories are also referred to as counter-productivity or de-modernization theories (p. 44).²⁸ These perspectives are viewed by Mol and Spaargaren as arising from a critique of the industrial society theories of the late sixties and seventies, which suggested international convergence and consensus, due to a benign economic system and industrial development. These "counter-productivity" theories suggested that fundamental changes in the production, consumption and behavior patterns of modern industrial society, and in the ideology of modernism, the methods and outcomes of economic decision-making and accounting procedures, and the national and international power relations, all of which would entail a radical overhaul of social, political and economic institutions (p. 42 ff).²⁹

Ecological modernization challenges this view, and suggests that what is required is reform of present institutions. In fact, both Mol and Spaargaren appear to be fairly dismissive of "counter-productivity" theories, and of de-industrialization approaches. These approaches—in particular the claims that aspects of modern society may be undesirable for reasons other than risk—are not met on their own terms by the authors. Instead, the claim is made that "the dynamics of capitalism can also (be made to) work in the direction of sustainable production and consumption" (p. 48). Furthermore, the same can be said of modern production and consumption; there is no reason why modern technology in production and consumption could not be made sustainable (*ibid*).

Spaargaren cites dual concepts of the "ecologising of economy" and the "economising of ecology" (pp. 50–51). The latter simply means a positivistic ("scientific") approach to environmental analysis, as opposed to the "romantic and holistic" approaches previously held. The former concept refers to the inclusion of environmental concerns, or the "internalising" of external costs in production and consumption (p. 50).

The main thrust of the approach appears to be that the dynamics of capitalism will itself generate forces for change. The intervention of the state is both

25. See the discussion of Blüdhorn below.

26. Mol 2000.

27. Mol and Spaargaren 2000, 19.

28. Also see Mol and Spaargaren 2000, 19.

29. Also see Mol 2000, 19.

undesirable (Spaargaren points to “ineffective” interventionist policies in the seventies) (p. 51) and increasingly impossible, since the role played by the state is diminished, and it is bypassed by both capitalists and new social movements. However these new movements—which Mol compares to the sub-political actors discussed by Beck, but which appear to be substantially different in many respects to Beck’s conception of these actors³⁰—are increasingly adopting a reformist agenda, according to the ecological modernizers.³¹ In response, and as a result of self-regulation, modern industry is increasingly green, as Mol claimed was the case in his study of the chemical industry.³² Indeed Mol suggests that globalization itself will counteract degradation of the environment, both by removing national differences in environmental practices, which will stop risks simply being displaced from one country to another, and because of the high profile of the large multinational companies. Mol claims it is large *national* concerns, which are the main polluters (p. 138). Capitalism appears to be viewed as part of reflexive modernity by Mol. Indeed, according to Mol all the “institutions of modernity” are being transformed, and are playing an important part in environmental reform (p. 136).

In this respect, ecological modernization theory might usefully be viewed as “a theory of unplanned social change.”³³ In this respect it has much in common with the new institutionalist school of political economy, which was attempting to show how capitalist economies could be self regulating.³⁴

A more unusual line of analysis is adopted in the piece by Garcia. Garcia criticizes both the “limits to growth” modeling approach of the Club of Rome, which was one of the first bodies responsible for raising awareness of impending environmental problems, as well as the approaches that promote environmental sustainability while ignoring social sustainability.

Garcia invokes a kind of systems analysis approach more akin to organizational theory, which is a common formula for dealing with the idea of a new environmental paradigm.³⁵ He views society as a highly complex, self-organized system, and believes that the kind of mechanistic models which the Club of Rome (and presumably orthodox economic models also) employ are inadequate. The key point in systems theory is the manner in which organizations learn and adapt to their environment.

Much of this critique might be applied to ecological modernization theory, especially bearing in mind that the ecological modernization approach does bear a considerable resemblance to the approach of the new institutional economists. The latter is also concerned with how an economy can evolve optimal institutions without the requirement of state intervention.³⁶ In fact, many

30. Buttel 2000, 62.

31. Mol 2000, 46 ff.

32. Mol 1995.

33. Murphy 2000, 1–2.

34. Mulberg 1995, 128–144.

35. Garcia cites the work of Boulding (see e.g. Boulding 1978) and Georgescu-Roegen (e.g. Georgescu-Roegen 1971), which are good examples of economic approaches in this vein.

36. Mulberg 1995.

of the criticisms of new institutional economics are applicable to the theory of ecological modernization. In particular, it is claimed that no institution learning is involved in this approach, which would allow social institutions to evolve.³⁷ Furthermore, the political sphere has a different *raison d'être* to the economic, and works on a different logic. The "economising of the ecology" suggested by Huber is in this sense misplaced, because environmental "rationality" works on different lines to economic "rationality." As Barry puts it,

The point about collective economic management is not simply to do with finding a more effective institutional response to environmental problems. Rather, it seeks to tackle the causes directly and not just the effects of social-environmental problems, by expanding the criterion of "effective" to include normative as well as "instrumental" utilitarian or narrowly economic considerations.³⁸

That is to say, the "counter-productivity" critique is partly a cultural critique, in which it is maintained that both cultural and institutional change is necessary. Indeed, we may note how problematic the call of Spaargaren for an ecological theory of consumption becomes precisely because of his rejection of so-called counter-productivity theories. In fact, there does not seem to be much in the way of cultural analysis in ecological modernization theory. Neither, as Leroy and van Tatenhove point out in their chapter, is there an analysis of power relations. According to them, it seems as if this social and industrial self-organization "is assumed to occur almost automatically" (p. 197), as with Adam Smith's "invisible hand." However the aggregation principle of ecological modernization—the "invisible hand" of market mechanisms—is immensely problematic. It is far from clear that individuals in modern society will self-organize in an optimal manner. The question of situation—of including the social as well as the physical—is ignored or even denied. Consequently the ecological modernization approach lays itself open to charges of being a reformist patsy to vested interests.

Even to the extent that it is possible to uncover the actual mechanism which ecological modernization theory suggests will generate non-state regulation, critics still point to problems. Leroy and van Tatenhoe point out what they believe are some of the less valid assumptions of the theory. In particular, the theory assumes stable, well-functioning markets, a sort of ubiquitous "moral entrepreneurship" by consumers, whereby consumers behave as citizens within a market place,³⁹ a high level of social and political self-regulation, and a political structure whereby the state subsumes its interests globally and locally. They suggest there is little evidence that any of these assumptions is either holding at present or likely to hold in the future (pp. 199–200). The assumption of a kind

37. Mirowski 1986.

38. Barry 1999, 106–107.

39. Indeed, as I understand it, using the explanation of price of orthodox economics, market outcomes actually become indeterminate under these conditions.

of "citizenship" behavior in market relations, whereby consumer purchases are presumed to include judgements about the value of environmental protection (although presumably the same argument is applicable to other areas, such as animal rights or child labor), also, it could be suggested, contains a debateable logic, in that it suggests that the market activities of consumers is a valid measure of social or political concern. This presumption need not be accepted. Apart from a whole range of questions concerning the distribution of these "money votes," even if consumers do not express a concern for environmental degradation or child labor in their purchasing, this does not make the activities legitimate, since consumers do not have a moral right to decide on these matters. The damage or suffering is to children or animals or the environment, not to the consumers.⁴⁰ Furthermore, the claim by proponents of ecological modernization that new social movements are tending towards a reform agenda seems somewhat incredible at the time of writing.

Furthermore, there is a considerable body of criticism concerning the equitable operation of market mechanisms. Without equity, the operation of the sort of indirect regulation suggested by ecological modernization would be unrealistic. An environmental taxation regime, for example, would either be punitive and politically unfeasible, or limited and insufficient. The acute distributional effects of environmental policy⁴¹ are not really dealt with by Mol or Spaargaren. These are, however, at the root of the problems Rinkevicius considers in his study of Lithuania. He refers to the acute problems of distribution based in developing and transitional countries as "double risk." Needless to say, Marxist concepts do not receive much favor in Lithuania at present, and it is to market-based approaches that most post-Soviet countries are turning.

This should therefore be fertile ground for what Rinkevicius calls an "ecomodernist ideology." He believes that much of this program is being implemented in Lithuania. A particularly relevant point is that pollution taxation only has any real significance in a market system, since under central planning systems it is simply a transfer payment from a central budget (p. 172).

In any event, it could be suggested that the imposition of taxation does not by itself "answer" the question of the level, form and method of environmental protection. It simply restates what is in essence a political question in a numeric format. When Rinkevicius interviewed industrialists, he found that the Lithuanian pollution charges were really too low to have much effect on the reduction of pollution (p. 173), something that appears to be common throughout the world. While it might be argued that taxes should simply be increased, the underlying issue is that we are actually dealing with a political question, which is contingent both on the other effects of taxation and the relative emphasis to be placed on environmental protection *vis a vis* other policy imperatives. Indeed, according to Rinkevicius, regardless of taxation the view in Lithua-

40. By the same token, it could be pointed out that risks are seldom taken by the risk assessors.

41. Daly 1986.

nia is that the responsibility for environmental protection remains with the government (*ibid*).

One notable absence from this study is the views of new social movements or the general public in Lithuania. It may simply be that reflexive modernity has not arrived in the former Soviet bloc. Alternatively, it may be that either the risk society analysis, or ecological modernization theory, or both, are inappropriate for countries which do not have full industrialization. These issues are unfortunately not considered by Rinkevicius, who suggests, in spite of all the drawbacks that he discusses, that ecological modernization theory should be used as a “framework” for future research.

Blüdhorn, in his contribution, makes no such concession towards ecological modernization theory. He claims that the approach is “a form of societal behavior which responds to the perceived necessity to preserve the myths of modernity” (p. 209). Blüdhorn views the ideology as defending a “politics of nature” which is inequitable and driven by power relations (*ibid*). The problems of environment, according to Blüdhorn, are viewed by ecological modernization as management problems that simply require fine-tuning of the existing institutions (p. 211). As Barry points out, this creates a focus on elites, such as multinational industrialists, who have no democratic mandate.⁴² In addition, Barry suggests that the types of interests that will form the agenda of the politics of nature under ecological modernization are only pecuniary values, so-called “facts” of positive science and politically expedient interests. The agenda-setting is not neutral,⁴³ and as it Barry puts it, excludes the whole range of ideological conflict and “neglects the set of emancipatory concerns” of the 1970s and 1980s.⁴⁴

Barry also points out that “ecological modernization is premised largely on bargaining and trade-offs between vested interests” (p. 119). The “invisible-hand” form of explanation aggregates rather than transforms interests, and articulates only the interests of those with power, influence and access. In fact, far from the “ecologising of economy,” Barry believes the only way in which the balancing of interests which he outlines can work is to couch all interests in the language of economic rationality (p. 119). It is the inadequacy of such a rationality that is at the heart of much of the green critique. It is also the inability of economic rationality to deal with questions of distributional justice that made market-based solutions so problematic. As Fred Hirsch pointed out in 1977, distributional inequality has traditionally been justified by economic growth.⁴⁵ A defense of economic growth without an account of distributional justice is problematic, but questions of justice are outside of the scope of economic discourse. If universal risks are to be justified, then this implies some idea of fair payouts for taking those risks. As Hajer suggests, ecological modernization is

42. Barry 1999, 188.

43. Barry 1999, 119.

44. Barry 1999, 211.

45. Hirsch 1977, 1–12 and *passim*.

not likely to solve environmental problems if it is simply an apology for capitalist expansionism.⁴⁶

While his critique is put strongly, Blüdhorn's substantive approach is not too evident from his chapter in the volume. However it is outlined in his earlier work.⁴⁷ He raises the issue of social constructivism, a debate that has caused deep divisions within the field of environmental sociology. Firstly, Blüdhorn's "post-ecologist politics" denies the concept of a single idea of "nature." He asks the same question as Goldblatt:⁴⁸ what is it that makes us worried about the environment, and on what basis do we call what is happening to the environment *degradation*?⁴⁹ That is to say, degradation is a "social construct" in the sense that it requires a decision as to what should be a matter for attention and what should not. Such an idea as degradation, Blüdhorn suggests, requires criteria or definition, and these will be socially constructed and have social reference. In this sense "nature" is democratized or even abolished—constructivists are insistent upon removing boundaries between "society" and "nature."

However Blüdhorn's "post-ecologist politics" goes further than this, in refusing to maintain any ethical precepts at all. Destroying the environment is, it appears, not "wrong" in any sense (although, of course, not right either). In fact, environment would not even exist on its own accord, and there is no (non-ethical) reason for advocating sustainability. Nor for that matter is there any fundamental reason to take cognisance of the future. Blüdhorn regards social structure furthermore as subject to an (unknown) evolutionary change and "beyond rational control," as well as beyond criticism (p. 141).

While it may be possible to take on board aspects of both Blüdhorn's critiques of ecological modernization and aspects of his constructionism, I believe that the present formulation of this approach appears to push things too far. There seems little room or need for social science in his post-ecologist politics. His critiques of ecological modernization suggest a critical social science, whereas a corresponding notion of emancipation seems to be lacking in the substantive theory.

A refusal to accept any form of physical or structural constraints lays social constructivism open to the charges of complete relativism that were raised by Dunlap, Catton and others.⁵⁰ However Burningham and Cooper point out that within environmental sociology a relatively mild form of constructivism is inevitably adopted, whereby objective conditions are taken as the point of departure for the sociologist. Social constructivist studies concern the juxtapositions of beliefs or claims about nature in the context of objective conditions, hence the term "contextual constructivism."⁵¹ In fact, we might even view some of the

46. Hajer 1996, 255.

47. Blüdhorn 1997.

48. Goldblatt 1995.

49. Blüdhorn 1997, 131.

50. Burningham and Cooper 1999, 300.

51. Burningham and Cooper 1999, 304–5.

work of Marx—often regarded as a philosophical realist—in this light, in that statements about nature are only possible using social categories.⁵² Burningham and Cooper outline the way in which ethical imperatives or objective “real” phenomena are employed even in constructionist research, often involving concepts such as justice, nature, or degradation.⁵³

This contribution to the debate is very much in the spirit of Freudenberg’s chapter. It is the interactions between the physical and social which, Freudenberg suggests, should be the focus of environmental sociology (p. 104). He views the debate between realist ideas of the independence of nature and constructivist ideas of a socially constructed nature as futile. Technology, for example, is clearly physical, but should also be viewed as social, in that it is a human creation and can often alter physical limitations (p. 105).

For Freudenberg, the issue is not so much about environmental problems, but environmental *privilege*. These, he argues, provide far more relevance for the social constructionist project (p. 103). Freudenberg’s approach differs from much of the social constructivist literature in that it adopts a far more political and ideological outlook. His main interest is on what it is often called the second face of power.⁵⁴ His analysis of the reflexive modernity of Giddens and Beck, for example, is that while the analysis of global risk is useful, the main exposure to risks remain local. The sort of disintegration of class barriers due to large scale unavoidable risks that Beck, for example, envisages is not the major factor in modern society, but that in fact the classic questions of the distribution of privileges, is still of major relevance (p. 107 ff). We could remark that these questions have of course been analyzed by sociologists for centuries.

Freudenberg’s interest is therefore on the access to environmental privileges; privileged access to public resources (p. 110–11). Control on this access to privileges is backed up power and by ideology, which Freudenberg refers to as “privileged accounts,” giving legitimation to the powerful in the discourse over the environment. That is to say, as Blüdhorn suggested, whether or not the environment is socially constructed, environmental *problems* certainly are (p. 214). For Freudenberg, the research project concerns the extent to which this construction of the agenda of environmental politics is controlled and manipulated by the powerful.

Overall this is an interesting and important volume. The collection as a whole covers many of the major strands of current environmental sociology. It also touches on several important debates that will feed into policy circles as well as inform social science discussions. I believe that the collection might have been improved had the various contradictory approaches been juxtaposed, but that may simply be my over-combative nature. The volume will be of use not only to academic researchers, who may be interested in the current state of what is less an art than an ongoing debate, but also to postgraduate or even advanced

52. Järvikoski 1996, 78.

53. Burningham and Cooper 1999, 307. Also see also Lidskog 1996.

54. Bacharach and Baratz 1962; and Lukes 1974.

undergraduate students, since there is a dearth of good teaching material in this area. Library copies may be a problem though, if they fall apart as my review copy did.

This brings us nicely to Alan Irwin's book. Irwin has been making useful contributions to both environmental sociology and the sociology of scientific knowledge for some time. His book *Citizen Science*⁵⁵ dealt with the issue of disseminated, localized knowledge, the absence of which can compromise centralized establishment scientific knowledge. He criticizes the view that is frequently taken by the scientific establishment when confronted by a public rejection of policy proposals, which is that the issue is simply one of public relations, of explaining the science better. This is a live issue in the UK at the time of writing; there is a controversy over the safety of the combined measles, mumps and rubella (MMR) vaccination, in which government policy provides an excellent example of the top-down approach Irwin criticizes.

Irwin's textbook is therefore very welcome, and may contribute to the alleviation of the paucity of University courses in environmental sociology, which is especially noticeable in the UK. The main discussion of Irwin's own approach does not occur until halfway through the book in chapter 4, where he discusses the importance of local, situated knowledge to complement the centralized scientific knowledge of the establishment. This link between citizenship and scientific knowledge was at the basis of Irwin's concept of Citizen Science. However, the textbook covers a wide range of approaches to environmental sociology. The introduction discusses the two-way relationship between environment and sociology, whereby while sociology offers contributions to the analysis of Environment, at the same time environmental issues raise fundamental questions about social organization and the functioning of social institutions. Irwin therefore looks briefly at what he terms the "questionable heritage" of the Sociological classics, and provides an overview of the new environmental paradigm debate, as well as a discussion of critical realism and social constructionism.

Irwin explains in the introduction that the book is broadly about the "conceptual possibilities" for environmental sociology, but the text is also clearly concerned with both policy issues and, as Irwin puts it, the "practical implications of sociological analysis," since environmental practice "cannot be separated from 'environmental understanding'" (p. 26).

The first chapter might be viewed as an historical introduction to the field. The chapter introduces the concept of sustainability, and covers the *Brundtland Report*⁵⁶ and the Rio summit. This is followed in the next chapter by a discussion of the concept of the risk society and the work of Beck. This second chapter, while handled well and in a provocative manner, also serves to introduce the reader to the manner in which sociology engages with the question of environment.

55. Irwin 1995.

56. WECED 1987.

Irwin's discussion of local knowledge in chapter four is preceded in chapter three by a discussion of what has come to be called the sociology of scientific knowledge. Broadly speaking, this could be described as a variety of studies in which scientific knowledge is viewed as a product of a community of scientists. The chapter draws from the work of Irwin's colleague at Brunel, Steve Woolgar and also Bruno Latour, but at the same time manages to bring the issues to life (or if you will excuse the pun, down-to-earth) by a succession of short case studies. The case study approach is also evident in chapter 5, which covers environmental policy and a discussion and analysis of institutional decision making processes. It considers how major institutions "make sense" of environmental questions (p. 115). In this chapter Irwin considers the various forms that discourses on the environment can take, and discusses the strategies of legitimation that are utilized by various socially constructed claims to knowledge. This leads on to a discussion of the social construction of technology in chapter 6, and the debate as to whether technology is independent and follows its own trajectory, or whether we can only understand technological development by locating it within social space. This chapter also includes a discussion of sustainable technology.

The final chapter attempts to draw the different threads together, juxtaposes the different positions and approaches to environmental sociology, and argues the case for a restrained constructivism.

This textbook is very clear and well written. It will provide undergraduates with a good guide to the literature, and the various points of departure within the field. If I have any criticisms, it would be that on occasion the large number of case studies gets in the way of the argument that is being put forward, but this is probably nit picking. This is a publication that is very welcome, and should do well.

I confess to being more than a little disappointed with Beate Littig's introductory book. Possibly my expectations were too high for such a small volume, but I am not sure that the book will be useful to students, or even that it achieves its objectives of providing a comprehensive overview of environmental sociology from a feminist perspective. Certainly there is an overview of environmental sociology, just as there is indeed a discussion of feminist perspectives. What it was not immediately obvious within the book is how these two interact. Each chapter appears to be discrete, and there is little overall structure to the book, which would help the reader obtain a handle on the subject and the literature. Possibly I am being unfair to what is still an emerging area of knowledge, but nonetheless I feel an introductory text should introduce the reader to the topic. Unfortunately I have the suspicion that readers expecting such an introductory overview will come away feeling confused. I suspect that this book will do less well than the Irwin text.

Issues surrounding environment, risk and globalization have a higher profile now than ever before. I hope these publications will go some way towards showing how environmental questions are questions of social science and not simply questions requiring technical fixes.

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