

Ecology and Historical Materialism

Jonathan Hughes



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Contents

Acknowledgements page *x*

Introduction 1

1 Ecological problems: definition and evaluation 7

2 Marxism and the green Malthusians 36

3 Marxism and the ecological method 64

4 Historical materialism: locating society in nature 86

5 Development of the productive forces 121

6 Capitalism, socialism and the satisfaction of needs 161

Conclusion 201

References 208

Index 216

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References 208

Index 216

1 Ecological problems: definition and evaluation

In order that we may investigate the ability of Marxism to deal with ecological problems – the extent to which Marxist explanations and predictions are affected by the existence of such problems and the potential of the theory to explain and offer responses to them – we need to have some idea of what these ecological problems are. Without that we will be unable to identify what is required of the theory or to assess the accounts of ecological problems given by Marx and Engels. In this first chapter I will therefore consider the following two questions, which are central to the enterprise of defining ecological problems.

- (i) What distinguishes that subset of problems faced by society that are referred to as ecological problems?
- (ii) What are the values or moral perspectives that lead to these phenomena being regarded as problems?

There is a difficulty involved in attempting to define a phenomenon prior to putting it in a theoretical context, since part of the function of a theory is to provide us with a set of terms with which to characterise the phenomena which the theory addresses. As Hegel put it: 'A preliminary attempt to make matters plain would only be unphilosophical, and consist of a tissue of assumptions, assertions, and inferential pros and cons, i.e. of a dogmatism without cogency, as against which there would be an equal right of counter-dogmatism.'¹ The point is that it is only in the context of a theory which attempts to understand an issue that we can decide whether a particular way of structuring or defining that issue is a good one. Without such a theory, Hegel maintains, we can have no good reason for preferring one definition to another and are therefore vulnerable to the charge of dogmatism. It is evident, however, that some sort of preliminary definition is

¹ Hegel 1975, p. 14.

required, in order to determine the scope of enquiry, and that to proceed without it would also be to open oneself to the charge of dogmatism, since a definition of ecological problems generated from within a particular theory (e.g. Marxism) will inevitably exclude from consideration any problems to which that theory's conceptual scheme renders it blind. I will consider some specific claims about Marxism's supposed blindness to certain aspects of ecological problems in the subsequent chapters. For now, however, the task is to give a preliminary account of what those problems are. In order to avoid the charge of dogmatism, and in particular the charge that my responses to the above questions exclude aspects or examples of ecological problems that are awkward for Marxism, I will draw upon a range of environmental literature and attempt to address the questions by considering intuitions that are widely shared and arguments that are accessible to all participants in the debate and not just adherents of a particular perspective. Thus, while I will at times relate this account to Marxism, I will not be presenting a specifically Marxist account of ecological problems.

1.1 What are ecological problems?

It is sometimes held that the term 'ecology' is properly used to refer to a branch of biology – that which deals with the relations between organisms and their environments – and that it is somehow debased when it is used in connection with environmental campaigns, green parties, and so on. This thought leads some writers to avoid the term 'ecological problem' in relation to the objects of such campaigns, and to write instead of 'environmental problems'. Others – John Passmore, for example – do refer to 'ecological problems', but qualify this as a loose or extended usage of the term.² Others again use the term 'ecology' to signify an outlook that is 'deeper' or more radical or fundamentalist in its view of the relation between humans and their environment than mere 'environmentalism'.³

It is true that the application of the term 'ecology' to humans takes it beyond the exclusive realm of biology, since (as we shall see) the relation between humans and their environment is importantly mediated by social and technological factors whose study is beyond the scope of that science, and it is true also that the terms 'ecological' and 'environmental' carry dif-

² Passmore 1974, p. 43.

³ This is apparent, for example, in the name of the so-called Deep Ecology movement, and also in Andrew Dobson's (1990, p. 13) distinction between 'ecologism' and 'environmentalism'.

ferent associations, the former tending to place more emphasis than the latter on the holistic or systemic aspect of the organism–environment relation. However, these facts do not force us to conclude either that the human–environment relation falls outside the proper realm of ecology, or that there is any difference in the core meanings of the terms ‘ecological’ and ‘environmental’ as applied to human problems. I will therefore use the terms ‘ecological problem’ and ‘environmental problem’ interchangeably in recognition of the fact that, since humans are organisms, their relation to their environment falls properly within the subject-matter of ecology as stated above. This usage is increasingly reflected in the practice of academic ecology which, according to one of its practitioners, ‘has grown from a division of biological science to a major interdisciplinary science that links together the biological, physical, and social sciences’.⁴ It follows that any debasement that the term ‘ecology’ does undergo in connection with its use in relation to ‘ecological problems’ arises not from its extension to humans and beyond pure biology, but from the particular content that is ascribed to the human–environment relation in its name.

The fact that ecological or environmental problems are not wholly a matter for natural science highlights a difficulty apparent in attempts to define these problems as distinct from others faced by society. As might be expected from the account of the subject-matter of ecology given above, such definitions typically depend upon a distinction between man or society on the one hand, and the environment or nature on the other. Passmore, for example, states that ‘a problem is “ecological” if it arises as a practical consequence of man’s dealings with nature’.⁵ This distinction, however, lacks a clear and unambiguous sense. Reliance on an unexamined notion of nature is likely to prove particularly problematic in considering how Marx and Engels did or could respond to ecological problems, given their insistence that humanity is a part of nature and that nature is transformed or ‘humanised’ by human activity.⁶ More generally, the vagueness of ‘nature’ is problematic in defining ecological problems, since these problems occur typically (though not necessarily) in situations where the environment *has* been transformed by human activity.

This vagueness in the notion of an ecological problem has sometimes been exploited in order to play down the ecological challenge to Marxism

⁴ Odum 1975, p. 4.

⁵ Passmore 1974, p. 43. Passmore’s definition is also adopted by Robin Attfield (1991, p. 1) and, provisionally, by Reiner Grundmann (1991b, p. 23).

⁶ E.g. Part of nature: *Economic and Philosophical Manuscripts*, pp. 67, 136; *The German Ideology*, pp. 42, 48. Transformation of nature: *The German Ideology*, p. 62; *Capital*, vol. I, pp. 283–4; *Dialectics of Nature*, p. 172.

by denying the novelty of ecological problems and asserting a continuity between these and the sorts of problems that were addressed by classical Marxism. For example, Hans-Magnus Enzensberger argues that the problems to which twentieth-century environmental movements address themselves are essentially no different from the effects of nineteenth-century industrialisation, which 'made whole towns and areas of the countryside uninhabitable' as well as endangering life in the factories and pits:

There was an infernal noise; the air people breathed was polluted with explosive and poisonous gases as well as with carcinogenous [*sic*] matter and particles which were highly contaminated with bacteria. The smell was unimaginable. In the labour process contagious poisons of all kinds were used. The diet was bad. Food was adulterated. Safety measures were non-existent or were ignored. The overcrowding in the working-class quarters was notorious. The situation over drinking water and drainage was terrifying. There was in general no organized method for disposing of refuse.⁷

What is different now, Enzensberger suggests, and what has led to the emergence of the environmental movement, is not the intrinsic nature of the problems but their universalisation: the fact that they now impinge upon middle-class interests. Enzensberger's view is thus at odds with the view of many greens that environmental problems *are* qualitatively different from (other) social problems in such a way as to create the need for a new political ideology with distinctive proposals for restructuring the whole of political, social and economic life.⁸ Gus Hall, also writing from a Marxist perspective, acknowledges that the environmental crisis is 'not just another problem, but a qualitatively different one', requiring 'a radically new approach'; but nevertheless, like Enzensberger, he compares environmental problems with what he labels 'the oldest and most brutal of capitalism's crimes', the deaths resulting from workplace conditions which have 'been going on in the factories and mines for over a hundred years'.⁹

Many of the problems described by Enzensberger can plausibly be classed as ecological or environmental problems. Other writers, however, have drawn the boundary even more widely. Joe Weston, for example, includes street violence, alienating labour, poor and overcrowded housing, inner city decay and pollution, unemployment, loss of community and access to services, and dangerous roads as environmental issues.¹⁰ The fourth item on this list, and perhaps the third, may reasonably be counted as environmental problems, but while the other items may be causes or

⁷ Enzensberger 1974, pp. 9–10.

⁸ Dobson 1990, p. 3.

⁹ Hall 1972a, pp. 68, 34.

¹⁰ Cited in Pepper 1993, p. 437.

effects of environmental problems, to count all of them as being themselves environmental problems, as Weston does, is to discard normal usage in a way which deprives the concept of its specificity.

Given that a boundary narrower than Weston's is needed, the problem remains of how it is to be drawn. An individual exists within a whole series of overlapping and nested environments – home, workplace, street, town, country, etc. – each of which has both physical and social components. In a sense, therefore, problems arising in relation to any of these environments could (following Weston) be classed as environmental problems. However, we are concerned with the sense in which 'environmental problem' is equivalent to 'ecological problem', and it is clear (from the discussion of this equivalence above) that ecology is concerned with the relation of the organism to its *physical* environment. Further, as Odum notes, ecology is primarily concerned with levels of organisation beyond that of individual organisms, i.e. with populations and (biotic) communities.¹¹ Perhaps, then, rather than looking at the individual's relation to his or her environment, which in its broadest sense will include the social environment made up of other human beings and their activities, we should define ecological problems as those concerning the relation between society as a whole and *its* environment – the non-human world, or 'nature'. This brings us back to Passmore's suggestion that ecological problems be defined as those which arise from human dealings with nature. Whatever its faults, this definition does capture the intuition that street crime and the disintegration of communities, for example, are not in themselves ecological problems, and that the workplace conditions referred to by Enzensberger and others fall into a grey area at the boundary of the concept. The workplace is an area in which humans encounter and use materials drawn from non-human nature, yet not all of the problems arising from that encounter fit easily into the concept of an ecological problem: pollution of the atmosphere and waterways, for example, intuitively fits the concept better than the dangers posed by unguarded machinery. This difference, however, appears congruent with Passmore's definition, in that the problems of pollution are essentially concerned with aspects of the natural environment (the air or water or whatever it is that is polluted) in a way in which the dangers of unguarded machinery are not.

The problem with Passmore's definition, as stated above, is the vagueness or ambiguity of the term 'nature'. If by this we mean 'untouched

¹¹ Odum 1975, p. 4. In ecological terms, 'population' designates a group of individuals of a single kind of organism, while 'community' (or 'biotic community') designates all of the populations of a given area (*ibid.*).

nature', excluding objects that have been transformed by human activity, then we will exclude many if not all of the problems generally regarded as ecological. For, as Engels pointed out, 'there is damned little left of "nature" as it was in Germany at the time when the Germanic peoples immigrated into it. The earth's surface, climate, vegetation, fauna and the human beings themselves have continually changed, and all this owing to human activity . . .'.¹² The disappearance of 'untouched nature' has also been the subject of more recent discussion, most prominently by McKibben in *The Death of Nature*. Many conservationists acknowledge, however, that the environments they seek to conserve are in varying degrees products of human intervention, and this may be rendered consistent with Passmore's definition if we allow that nature may include elements that have been altered by humans. Here, though, there is a danger of including too much, since everything is 'natural' at least in being comprised of materials that originate in nature and are subject to its laws. Thus if we stretch the concept of nature too much we will be unable to exclude any of the problems facing society from the realm of the ecological. One writer unwittingly illustrates the absurdity of such an account by arguing that, since humans are a part of nature, 'man's works (yes, including H-bombs and gas chambers) are as natural as those of bower birds and beavers'.¹³ I say that this account of nature is absurd because, like Weston's list of environmental problems, it is so broad as to deprive the concept under consideration of any specificity. What it indicates, however, is that short of 'untouched nature' there is no clear boundary between what is natural and what is not. Naturalness appears to be a matter of degree, and the concept of ecological problems, if it is defined in terms of nature, will be correspondingly vague.

As a characterisation, in broad terms, of what is generally understood by the phrase 'environmental problem', Passmore's definition is useful. No-one would dispute that environmental problems are to be understood as involving the relation between humans and nature. What must be emphasised however, and is illustrated by the preceding paragraphs, is that such a definition does not provide for a rigorous distinction between environmental and other problems faced by society. The particular characteristics of environmental problems and the implications of such problems for political theory cannot be derived from a formal definition of environmental problems or an abstract distinction between the concepts of 'humanity' and 'nature', but must be based upon a theoretical account of the actual relation between human beings and their natural and man-made environment.

¹² *Dialectics of Nature*, p. 172.

¹³ Watson 1983, p. 252

In order to provide the framework for such an account, and to provide a further indication of the scope of this study, I will in the next section approach the problem of characterising ecological problems from a different angle, by examining the categories of phenomena which various writers have put forward as constituting the broader category of environmental or ecological problems.

1.2 Categories of environmental problem

Despite the lack of a rigorous analytical definition of what constitutes an environmental problem, there is a fair measure of agreement about the actual types of problem which fall within this category. Reiner Grundmann compiles a list of environmental 'phenomena' drawn from the 1987 report of the World Commission on Environment and Development (The Brundtland Report) and from Passmore.¹⁴ From the former:

- (1) pollution (air, water);
- (2) depletion of groundwater;
- (3) proliferation of toxic chemicals;
- (4) proliferation of hazardous waste;
- (5) erosion;
- (6) desertification;
- (7) acidification;
- (8) new chemicals

and from the latter:

- (9) pollution;
- (10) depletion of natural resources;
- (11) extinction of species;
- (12) destruction of wilderness;
- (13) population growth.

Grundmann argues that this list of phenomena can be reduced to three categories: pollution, depletion of (renewable and non-renewable) resources, and population growth. The last of these is the most controversial, so let us consider it first.

Population growth, Grundmann argues, can be an ecological problem in two senses:

¹⁴ Grundmann 1991b, p. 13; World Commission on Environment and Development 1987, p. 10; Passmore 1974, p. 43.

First, it can be seen as leading to ecological problems such as pollution or depletion of resources, because an increasing population might require more intense exploitation of resources or more technological development with pollution as a side-effect. Second, it can be seen as an ecological problem *per se*, i.e. the increasing number in a specific place may be detrimental to human well-being. Taken in the first sense it is a cause of, taken in the second sense it is an instance of, an ecological problem.¹⁵

Neither of these statements, however, shows what Grundmann intends. The claim that population growth is a *cause* of ecological problems does not entail that population growth *is* an ecological problem. Interestingly Grundmann does not include other alleged causes of environmental problems such as economic growth or technological development in his list. Secondly, if increasing population were detrimental to human well-being this would show it to be a social problem but would not in itself show it to be an environmental or ecological problem. Even *The Limits to Growth* and *A Blueprint for Survival*, two publications from the early 1970s commonly described as neo-Malthusian because of their assumptions of exponential growth and severe warnings of the dangers of population growth, treat population growth as a cause rather than an example of environmental problems.¹⁶

What about the other steps that Grundmann makes in reducing to three categories his classification of environmental problems? Grundmann rightly includes 1, 3, 4, 7 and 8 within the category of pollution. He includes 11 and 12 (and presumably 2, though this is not stated) within the category of resource depletion. Problems of food supply (whether arising from population growth as suggested by the *Limits to Growth*, or from other causes) may also be included within this category. More contentiously, Grundmann discards erosion (5) and desertification (6) from the list of environmental problems on the grounds that these are natural processes and are 'interesting in our context only insofar as they are caused by human intervention'.¹⁷ Insofar as this is true, he argues, they can be subsumed under the depletion of natural resources. It is unclear, however, why Grundmann thinks depletion of resources should be regarded as an environmental problem only when it is caused by human intervention.¹⁸ If resources are defined as materials instrumental to human ends,¹⁹ it follows that in order to count as an example of resource depletion the phenomenon in question must, at least potentially, have an *effect* upon human activ-

¹⁵ Grundmann 1991b, p. 14. ¹⁶ Meadows *et al.* 1974, p. 23; Goldsmith *et al.* 1972, p. 3.

¹⁷ Grundmann 1991b, p. 14.

¹⁸ It is equally unclear why Grundmann thinks that 2 and 11 cannot happen naturally.

¹⁹ This definition will be qualified in the conclusion to this chapter.

ity, but this tells us nothing about its *cause*. It follows from the fact that we are considering resource depletion as an ecological problem that its causes must consist at least partly of natural or non-human factors, and we have seen no reason to suppose that they cannot be wholly natural.

If we reject population growth as a category of environmental problem, we are left with two categories: depletion of (renewable and non-renewable) resources and pollution. There is one further category which should be considered. This is given by Robin Attfield as 'the endangering of the life-support systems of the planet', and in the *Blueprint for Survival* as the 'disruption of ecosystems'.²⁰ The introduction of this category reflects what is often referred to as the systemic or holistic nature of ecological problems: the interconnection of different environmental factors and problems.

It might plausibly be argued that this last category is unnecessary, since the disruption of natural systems qualifies as an ecological problem only to the extent that it involves pollution and/or the depletion of resources. On the one hand, disruption of natural systems may be a *cause* of pollution or resource depletion, in which case it would, like population growth, be simply a cause of ecological problems and not an ecological problem in its own right. On the other hand, disruption of natural systems might be counted a case of resource depletion in its own right if 'resource' is defined broadly to include anything which serves the interests or purposes of humans or other creatures, making the disruption of natural systems merely a subcategory of resource depletion. I suggest, however, that there is reason to resist such a reduction. For one thing, such a reduction strains ordinary usage: global warming due to the greenhouse effect is a key example of the disruption of natural systems, and is usually thought of as an example rather than merely a cause of ecological problems, but it can only be subsumed under resource depletion with some artificiality since we would not normally speak of the global climate system as a resource. More importantly, the proposed reduction loses a real and significant distinction between two different kinds of problem: the decline in reserves of a quantitatively measurable substance, such as oil, water or fish stocks, and the breakdown of an interconnected system, such as a marine ecosystem or the global climate system. It is preferable, therefore, to retain disruption of natural systems as a separate category.

²⁰ Attfield 1991, p. 1. Attfield's complete list of ecological problems is: pollution, diminishing natural resources, the increasing size of the human population, the destruction of wildlife and wilderness, loss of cultivable land through erosion and the growth of deserts, and the endangering of the life-support systems of the planet. The *Blueprint* quotation is from Goldsmith *et al.* 1972, p. 3.

1.3 Values and the environment

In the previous two sections I have considered the scope of the concept of an ecological problem and how we might distinguish these problems from others faced by society. In this section I will consider the values or ethical perspectives in the light of which these phenomena are viewed as problems.

Environmental ethics is a branch of applied philosophy which has developed in recent years, alongside the growth of the environmental movement, in order to address this issue. As the editor of one collection of essays puts it: 'What essentially interests us as philosophers is the question: *why* ought we to be concerned with the environment? What moral principles underlie such a commitment?'²¹ Much of the debate in environmental ethics concerns the opposition of two broadly conceived evaluative frameworks: on the one hand, 'anthropocentrism', which holds that only humans are worthy of moral consideration for their own sake and that we should preserve the environment solely for the sake of the humans who inhabit it, and, on the other hand, approaches described variously as 'biocentric', 'ecocentric', even 'cosmocentric', which ascribe moral considerability to some or all of non-human nature.²² As the plurality of terms suggests, a variety of nature-centred ethics can be found, differing in the range of non-human entities held to be morally considerable. The most fiercely debated distinction, however, is that between anthropocentric perspectives on the one hand, and non-anthropocentric perspectives ascribing moral considerability to at least some non-human entities on the other.²³ A widespread view among environmental ethicists is that it is the anthropocentrism dominant in contemporary societies that is responsible

²¹ Dower 1989, p. vi. ²² The term 'cosmocentrism' is from Bures 1991.

²³ It has been suggested that 'anthropocentrism' is an inappropriate name for the particular evaluative perspective in question here, since *all* ethical doctrines are unavoidably anthropocentric in the sense that they are human perspectives and that their judgements about what is valuable for its own sake must, however widely the boundary is ultimately drawn, begin from our understanding and experience of what is valuable to us. The substantive doctrine that only humans possess intrinsic value is better captured, it is suggested, by terms such as 'speciesism', 'human chauvinism' or 'human racism'. See Hayward 1997, Eckersley 1992, pp. 55–6 and Eckersley 1998. My response to this is (i) simply to stipulate that I am here following the common practice of using the terms 'anthropocentrism' and 'non-anthropocentrism' to refer to the substantive ethical doctrines set out above, and not to make any claims about the perspectival nature of such doctrines, and (ii) to note that the alternatives mentioned above are unsatisfactory in that they suggest *unwarranted* discrimination in favour of our own species, and hence appear to beg the question of whether an 'anthropocentric' perspective might be justified. (If a substitute term for 'anthropocentrism' is insisted upon, then 'human exclusiveness' might be a better candidate.)

for their ecological crises, and that a shift to a non-anthropocentric ethic is necessary for their solution.²⁴

Marx himself would have had little patience either with this view or with the argument more generally, given his well-known aversion to morality and moralising. Marx's views in this area have been the subject of extensive debate, which cannot be adequately addressed here.²⁵ I will suggest, however, that his hostility to moral discourse need not be as inimical to an environmental ethic as it may at first seem.

Marx's aversion to moralising relates primarily to what he saw as the efforts of Utopian Socialism to convince the ruling class by moral argument of the injustice of capitalism and the moral superiority of socialism. Thus, in the *Communist Manifesto* Marx and Engels write that socialists of this kind 'consider themselves far superior to all class antagonisms' and that they 'habitually appeal to society at large, without distinction of class; nay, by preference to the ruling class. For how can people, when once they understand their system, fail to see in it the best possible plan of the best possible state of society?'²⁶ Marx and Engels's scorn for such moralising stems from their belief that moral consciousness, as a part of society's superstructure, is conditioned by its economic foundation in such a way that it will tend to reflect the interest of the dominant class in maintaining the status quo. Seen in this light Marx's hostility to morality may be interpreted not as a rejection of moral criticism *per se*, but as an assertion of its limited usefulness as a tool of social change. So, for example, Marx's observation in *Capital* that, since exploitation arises out of the purchase of labour power at a price equivalent to its value, it is 'a piece of good luck for the buyer but by no means an injustice towards the seller'²⁷ can be interpreted not as a straightforward acceptance of the justice of capitalism, nor a rejection of the possibility of a moral critique, but as an assertion that capitalism is acquitted of injustice according to the (bourgeois) conception of

²⁴ Indeed, some define environmental ethics in such a way that only a non-anthropocentric ethic can qualify. For example Elliot and Gare define an environmental ethic as a systematic ethic which 'allows that future generations, nonhuman animals and nonsentient nature are all morally considerable' (1983, p. x). It seems to me, however, that – whatever the merits and demerits of the two perspectives – it is unhelpful to *define* environmental ethics in these terms. 'Environmental Ethics' is better viewed as the name of the discipline which addresses questions about the value of non-human nature and the reasons there are for preserving it, and within which different answers may be proposed. Otherwise there is a danger that the debate about the most satisfactory form of environmental ethic will be decided by means of linguistic stipulation, yielding a hollow victory for non-anthropocentrism and leaving open the question of how best to understand the value of non-human nature.

²⁵ See, for example, Lukes 1985 and the responses in McLellan and Sayers 1990. A valuable survey of the debate is provided by Geras 1989.

²⁶ *Manifesto of the Communist Party*, p. 60. ²⁷ *Capital*, vol. I, p. 301.

justice that it gives rise to and makes dominant. And although Marx thinks that this bourgeois conception of justice (as equal exchange in the sphere of circulation) will tend to predominate in a bourgeois society, and is at times dismissive of the possibility of bringing any other conception of justice to bear on the process of capitalist exploitation, he does implicitly allow and even make use of such alternative conceptions. This is evidenced by his parallel insistence on the *inequality* of the labour relation considered from the point of view of production, whereby the worker receives less than the value he creates and is therefore, in Marx's words, a supplier of 'unpaid labour' and a victim of 'robbery', 'theft', 'embezzlement' and 'extortion'.²⁸ Moreover, though Marx holds that bourgeois principles of justice cannot be superseded until material conditions allow for a transformation of the society that spawned them, he nevertheless holds that they can, along with the transitional socialist principle, 'to each according to his work', be judged and found wanting by comparison with the 'higher' communist principle, 'to each according to his need'.²⁹

I will return to consider the ecological implications of the needs principle in the final chapter. The point to be made here, however, is that Marx need not be interpreted as denying the truth or objectivity of evaluative statements critical of capitalism; his point is that even if they are true they will not gain general acceptance and their promotion is therefore ineffective as a means of bringing about social change. For Marx, therefore, the fundamental task of a theorist engaged in criticism of existing society is not the promotion of one or another set of moral beliefs, but the analysis of the various interests and the social structures which underlie them, in order to identify and promote potential agencies of change.

Interpreted in this way, Marx's scepticism about morality may serve as a warning against regarding ecological problems as simply the result of a wrong set of values, to be rectified by the promulgation of a new ethic without considering the interests and structures underlying those values. It should also caution us against expecting to find a ready-made environmental ethic in his works. It does not, however, imply that evaluative issues should be ignored. Firstly, Marx overstates the ineffectiveness of moral argument. Even if truths about the injustice of capitalism are inaccessible to those who benefit from it (which is itself an overstatement), such truths may nevertheless have an important motivational effect upon the victims of that injustice. Marx's belief seems to be that their interests alone will suffice to motivate them, but this ignores the degree to which a

²⁸ See Geras 1989, pp. 223, 225.

²⁹ *Critique of the Gotha Programme*, p. 320; cf. Geras 1989, pp. 227–8.

person's motivation may be strengthened by the belief that the objective she is pursuing is not only in her interest but something to which she has a right, and even something she has a duty to pursue. Secondly, we cannot proceed without addressing evaluative issues, since the choice of evaluative perspective will affect what we count as an environmental problem and what would count as its resolution. For example, global warming and the resultant rising of sea levels might, from an anthropocentric perspective, be solved by the development of drought-resistant crops, desalination plants and coastal defences to counteract the threat posed to human interests. Non-anthropocentrists, however, would continue to regard these phenomena as problems so long as they impact upon the other living things with whom we share the environment, threaten species extinction, or undermine the integrity of natural ecosystems. Clearly, therefore, in order to assess whether Marxism can meet the challenge posed by environmental problems we must address the claims of a non-anthropocentric environmental ethic.

Non-anthropocentrism was defined above as the view that moral considerability extends beyond human beings. It is important, however, to qualify this by noting that theories of 'animal liberation', such as those of Peter Singer and Tom Regan, which assert the moral considerability of the 'higher' animals (those that share with humans characteristics such as sentience or the capacity to suffer) are often regarded as being on the anthropocentric side of the divide, or any rate not fully non-anthropocentric. On this view, non-anthropocentric perspectives would, despite the terminology, be more accurately characterised as those for which moral concern extends beyond the interests of individual sentient creatures.³⁰ Whatever the merits of such a definition, it is true that the extension of moral concern to sentient creatures is, both theoretically and in its practical implications, a less radical and less controversial departure from strict anthropocentrism than its extension to such things as plants, species and ecosystems. In what follows I will therefore assume that an anthropocentric approach can be extended to include sentient creatures other than humans among the

³⁰ A much cited assertion of the incompatibility of animal liberation and a (non-anthropocentric) environmental ethic is Callicott's 'Animal Liberation: A Triangular Affair' (in Callicott 1989). Callicott has since modified his view, as he explains in a preface to the reprint of his article in Elliot 1995. For further discussion of this issue and other references, see Jamieson 1998; Attfield 1991, pp. 179–81; Eckersley 1992, pp. 44–5. The main arguments for not counting animal liberationism as a fully non-anthropocentric ethic are (i) that its method (of arguing outwards by analogy from humans to other species) is anthropocentric, and (ii) that in practice it is committed to policies which are incompatible with the agenda of radical ecocentrism. Strictly speaking, however, neither of these shows that it is anthropocentric in the sense defined above.

objects of moral concern, and will focus on the question of whether moral concern ought to be extended to non-sentient parts of nature.

I will assume further that the burden of proof in this controversy lies with those who wish to extend the sphere of moral considerability beyond sentient creatures. This may be criticised as kind of methodological anthropocentrism, but it seems to me that we have no alternative. The view that ecosystems and their components should be preserved not just for the benefit of the humans or other sentient creatures who enjoy or depend on them, but for their own sake, is highly contentious and therefore in need of justification. My investigation will therefore take the form of an examination and critique of the most common and plausible arguments for such an extension of moral concern. We may begin, however, and set the argument in the context of Marx scholarship, by considering the argument *for* anthropocentrism put forward by Reiner Grundmann as part of a defence of Marx (and the Enlightenment tradition which he sees Marx as representing) against ecological critique from a non-anthropocentric perspective.

1.3.1 *Flourishing and moral considerability*

Grundmann's argument for an anthropocentric approach is based on the supposition that the non-anthropocentrist must distinguish between states of nature which are 'normal' and thus to be preserved, and states which are 'pathological' and thus to be avoided. Against this, Grundmann objects that 'it is difficult to know what is "normal" for nature', and, more strongly, that this cannot be defined without reference to human interests.³¹ Standard accounts of ecological normality in terms of 'balance' or 'diversity' only make sense, according to Grundmann, in relation to human interests. One aspect of Grundmann's argument that might be questioned is his identification of 'normality' as the focus of a non-anthropocentric approach, but this does not affect his overall argument. Ecocentrists must identify some states of nature as being intrinsically better than others, and they typically do so in terms of the flourishing of natural systems; Grundmann's response, more generally stated, is that we cannot make sense of what it is for a natural system to flourish except in terms of the human interests served by that system.

There is, however, an important strand of environmental ethics which denies this assertion. According to this Aristotelian approach we *can* make sense of what it is for non-sentient entities to flourish, and we can there-

³¹ Grundmann 1991b, p. 24.

fore identify states and conditions that are good for them, independently of human interests. We may say, for example, that a plant 'does well' in certain conditions, or that those conditions are 'good for it', without apparently making any assumption about whether we want it to flourish. We can even make sense of the idea of the good of a non-sentient entity conflicting with human interests: crowded buses, we may say, provide good conditions for the propagation of the flu virus; mild winters are good for greenfly and therefore bad for gardeners.³² Whatever contributes causally to an object's flourishing is instrumentally good for that object, and whatever constitutes its flourishing is intrinsically good for it. Thus, anything that can be said to flourish can be said to have its own intrinsic goods, or intrinsic values, independent of human evaluation. Such things may thus be designated objects of direct moral concern by a theory which enjoins the promotion or preservation of such goods.³³

Within this broad framework there is disagreement about the kinds of things that can be said to possess goods of their own. Adherents of a 'bio-centric' or life-centred ethic, such as Robin Attfield and Paul W. Taylor, attribute goods of their own only to individual living organisms, whereas 'ecocentrists', such as Baird Callicott, Lawrence Johnson and Holmes Rolston, attribute them to collective or 'systemic' entities such as species, ecosystems, and even the biosphere as a whole.³⁴ It is arguable that if we do attribute goods of their own to individual non-sentient organisms, then we should attribute them also to such things as species and ecosystems, since we do intuitively seem able to make sense of the idea of such things having their own goods. An ecologist might say, for example, that a species does well when its population is large and stable rather than small and

³² This example comes from O'Neill 1993, p. 22.

³³ The idea that objects having goods of their own are morally considerable is also articulated by some theorists in terms of *interests*, such that objects with goods of their own have an interest in realising such goods and therefore fall under a moral principle enjoining consideration of the interests of others. See, for example, Attfield 1991, pp. 144–5. However, others (e.g. Taylor 1986, pp. 60–71) distinguish between 'having interests' and 'having goods of one's own', limiting the former to cases where a creature has goods which it is conscious of and strives to achieve, while holding the latter to be sufficient for moral considerability.

³⁴ James Lovelock (not himself a Deep Ecologist but a source of inspiration to many of them) famously characterises the biosphere as a superorganism, named Gaia after the Greek earth-goddess. He is careful to avoid attributing sentience to this superorganism (or at least – perhaps there is a deliberate ambiguity here – he is careful to avoid supposing that we *know* it to be sentient) but nevertheless assumes that we can make sense of the idea of Gaia flourishing or not – and that her flourishing may be incompatible with human flourishing. (Lovelock 1995, p. ix.) Among the writers mentioned above, Johnson (1993, pp. 265–6) takes the biosphere to be a system with interests of its own, distinct from those of its constituent subsystems. Rolston (1994, pp. 25–8) appears to take a similar view with regard to the earth considered as a natural system.

declining, or that an ecosystem is flourishing when it is able to maintain stability despite changes in the wider environment. Attfield and Taylor may appear, therefore, to occupy an unstable middle ground between Grundmann on the one hand, denying that we can identify what it is for *any* non-sentient entity to flourish except by reference to our own interests or preferences, and full-blown ecocentrism on the other.³⁵ But while Attfield and Taylor contest this view³⁶ it is not necessary to decide the matter here, because even if we accept that a wide range of non-sentient entities have ‘goods of their own’ this is not sufficient to establish their moral considerability.

1.3.2 *Objections and responses*

Non-anthropocentric ethics are often criticised for their propensity to generate moral conclusions that are abhorrent or unworkable – conclusions that require vital human interests to be sacrificed for the good of non-sentient entities.³⁷ The propensity to generate such conclusions seems particularly pronounced in the case of holistic ethics which view the ecosystem or ‘biotic community’ as the primary repository of value, and its component parts (human individuals and others) as valuable only insofar as they contribute to the flourishing of the whole. Such views have been labelled ‘environmental fascism’ by Tom Regan.³⁸ But it is not only holists who are vulnerable to such an argument, as Attfield acknowledges:

³⁵ Cf. Eckersley’s (1992, p. 47) observation that biocentrism is not a major stream of environmentalism since non-anthropocentric theorists have tended to gravitate towards animal liberation on the one hand, or deeper ecocentric approaches on the other.

³⁶ They argue that the interests or goods of collective entities such as species, insofar as they exist at all, are reducible to those of their present, or present and future members. See Attfield 1991, pp. 150–1; Attfield 1995, pp. 24–5; Taylor 1986, pp. 69–70; and, for a rejoinder, Johnson 1993, p. 183. Attfield further suggests (1995, p. 26) that the patterns of growth of collectivities such as species could only count as analogues to those of individuals, and hence ground notions of flourishing and interests, if some counterpart could be found for the genetic determination of individuals’ capacities – but surely these capacities and patterns *are* determined by the genetic make-up of their constituent members, and in any case it is unclear to me why the mode of determination should be regarded as important.

³⁷ See, for example, Grundmann 1991b, p. 24. See also Bookchin’s critique of Deep Ecological misanthropy, cited in Low and Gleeson 1998, p. 144.

³⁸ Regan 1988, pp. 361–2. Regan’s primary target is Aldo Leopold’s famous ‘land ethic’ (proposed in his *Sand County Almanac*), which has influenced writers such as Callicott and Rolston, and which holds that actions are right when they contribute to ‘the integrity, stability, and beauty of the biotic community’ and wrong otherwise. Note, however, that while this quotation tends to support the holist view attacked by Regan, others of his formulations suggest an *extension* rather than an abandonment of human-centred ethics, which would not deny the moral considerability of humans and other individual creatures. For discussion of this and of the charge of environmental fascism, see Johnson 1993, pp. 175–8 and Attfield 1991, pp. 157–9.

The objection may . . . be expressed as follows. If plants (or bacteria) have any more-than-negligible moral significance, then in their millions their interests must sometimes outweigh those of individual humans or other sentient beings; but this flies in the face of our reflective moral judgements, and should thus, short of compelling reasons, be rejected.³⁹

Attfield's response is that the moral significance of non-sentient entities may be so small, compared with that of sentient creatures, as to make a difference to the choice of action only when considerations relating to sentient interests are very finely, even perfectly, balanced.⁴⁰ This response meets the main thrust of the objection, removing the intuitively abhorrent consequences of a non-anthropocentric ethic, but leaves two problems for the non-anthropocentrist.

The first is that a theory which balances the goods of sentient and non-sentient things in this way will differ very little in its practical prescriptions from one which limits moral considerability to humans and other sentient creatures, and will therefore pose less of a challenge to established political theories, including Marxism, than many non-anthropocentrists intend. For this and other reasons it is a solution that many of them will resist.⁴¹ Secondly, in the kinds of case under consideration, what may be considered morally repugnant is not simply the suggestion that the goods of non-sentient things can *outweigh* important human interests, but that they count for anything at all. We may think, for example, that the 'interests' of the AIDS virus are not simply outweighed by human interests, but rather, that the fact that something is good for the virus is no reason at all, not even a defeasible or *prima facie* reason, for promoting that thing.⁴² If we accept this thought then we must conclude that something's having a good of its own is not, as the Aristotelian argument supposes, a sufficient condition for moral considerability.

What the intuition just described highlights is that there is a logical gap between the claim that something has goods of its own, and the claim that

³⁹ Attfield 1991, p. 154.

⁴⁰ *Ibid.* Attfield draws a contrast between moral *significance*, which is a matter of degree, and moral *standing*, which is not. Moral standing, according to Attfield, is possessed by all entities which have a good of their own, and indicates that the goods of that entity carry some moral weight. The moral significance of an entity is the amount of moral weight which its goods have in comparison with the goods of other kinds of entity.

⁴¹ See, for example, Taylor 1986, pp. 269–70.

⁴² This point is analogous to the following objection to utilitarianism. The utilitarian will say that sadistic torture is wrong because the pleasure obtained by the torturer is more than outweighed by the suffering of his victim, but what ought to be said is that the torturer's pleasure is not a reason in favour of committing the torture at all. Both Attfield and the utilitarian (whose analysis of the torture case is defended in Attfield 1995, pp. 34–5) reach what is intuitively the right answer, but arguably for the wrong reasons.

it is morally considerable or has moral standing. The former is a factual claim, that the object in question has a natural potential or a tendency towards the achievement of certain 'ends', relative to which it may be said to flourish or not.⁴³ The latter, on the other hand, is a normative claim, that moral agents ought or ought not to treat it in certain ways. As Taylor notes: 'One can acknowledge that an animal or plant has a good of its own and yet, consistently with this acknowledgement, deny that moral agents have a duty to promote or protect its good or even to refrain from harming it.'⁴⁴ O'Neill similarly observes: 'That Y is a good of X does not entail that Y should be realised unless we have a prior reason for believing that X is the sort of thing whose good ought to be promoted.'⁴⁵ In other words the non-anthropocentrist must show not only that it makes sense to speak of non-sentient things having 'goods' or 'interests', but also that these 'interests' are morally significant ones which we ought to promote.

How may such a thing be argued? If it is accepted that we have no way of deducing normative conclusions directly from factual (non-normative) premises then it is clear that any such argument must appeal to shared moral beliefs. One strategy is to seek analogies between things that are agreed to be morally considerable and those whose moral considerability is in dispute. This is the method used by Singer to argue for the moral considerability of sentient animals: they like us have interests – in the avoidance of suffering if nothing else – and consistency demands that we treat those interests no less seriously than the similar interests of humans. Singer, however, resists any further extension of moral considerability, articulating the intuitive and widely held view that since nothing can matter to a creature which is incapable of experiencing anything, it cannot matter morally what we do to it except insofar as it affects the interests of sentient creatures.⁴⁶

But while this restriction on the range of moral considerability seems obvious to many, others disagree. Attfield, for example, sees an analogy (albeit a weak one which would confer only a limited moral significance) in the fact that the capacities whose fulfilment constitutes the flourishing of non-sentient entities – such as growth, respiration, self-preservation and reproduction – are ones which they share with us.⁴⁷ Taylor also appears to use an analogical form of argument when he defends his biocentric ethic as the only one consistent with the 'biocentric world view', which emphasises properties and relationships we have in common with other organisms, including our dependence on biological and physical conditions for

⁴³ This, at least, or something like it, is what the claim means when applied to non-sentient things. ⁴⁴ Taylor 1986, p. 72. ⁴⁵ O'Neill 1993, p. 23.

⁴⁶ See, for example, Singer 1993, p. 277. ⁴⁷ Attfield 1991, pp. 153–4, 205.

survival, the fact that we have goods of our own and a capacity to realise them, our common evolutionary origin, and our dependence upon the healthy functioning of the biosphere. The problem with any such argument, however, is that for any proposed widening of the moral community – whether to animals, living organisms or self-regulating systems – we will find both analogies and disanalogies between humans and the wider group.⁴⁸ The question is: which ones are relevant to the question of moral considerability? And here Singer's answer again seems plausible: the 'interests' or goods that matter morally are those that matter from the point of view of the entity in question. Thus sentience, or possession of a point of view, remains a necessary condition of moral considerability, without which other analogies are irrelevant.

Taylor attempts to overcome this barrier by ascribing a point of view to whatever has a good of its own. He characterises living organisms generally as 'teleological centers of life', each 'striving to preserve itself and realize its good in its own way', and writes of such organisms that one can achieve 'a genuine understanding of its point of view' and can then 'imaginatively place oneself in the organism's situation and look at the world from its standpoint'.⁴⁹ The language of 'striving' and of 'points of view', however, is metaphorical, and adds nothing of substance to the claim that such things have goods of their own. A tree, for example, does not *try* to reach its potential, and though our view of the world can be informed by an understanding of its genetically programmed tendencies and potentials we cannot literally *look* at the world from its standpoint, since, looking at, or more generally perceiving, the world is not within its capacities.⁵⁰

Another kind of argument for the moral considerability of non-sentient things draws upon our intuitive reactions to particular imaginary scenarios. These 'last man' or 'last person' arguments present scenarios in which just one person (whom we may take also to be the last sentient being) is left alive following some disaster, and ask us to judge whether, for example, it would be wrong for that person gratuitously to chop down a tree, or wipe out a species, or unleash a nuclear arsenal that would destroy the remaining life on the planet. The expectation is that we judge it to be wrong, and conclude that the tree, or species etc., has a value, or moral considerability, that does not depend on it serving the interests of humans or other sentient creatures.⁵¹ Such arguments, however, present a number of difficulties. Firstly, the intuitions elicited may not be as uniformly

⁴⁸ *Ibid.*, pp. 154–5. ⁴⁹ Taylor 1986, pp. 120–1.

⁵⁰ Cf. Singer 1993, p. 277: 'there is nothing that corresponds to *what it is like to be* a tree dying because its roots have been flooded' (my emphasis).

⁵¹ Attfield 1995, pp. 21–2. This style of argument is attributed originally to Richard Routley.

supportive of the non-anthropocentrist case as the authors of the arguments assume. Secondly, intuitive responses to such unfamiliar scenarios are, in any case, likely to be highly theory-dependent and therefore to reflect our background moral theory rather than providing neutral data with which to adjudicate between competing theories. Thirdly, it is difficult if not impossible to separate the situation under consideration from one's own contemplation of it. My own intuitions, for what they are worth, suggest that the value read into such situations is derived from the satisfaction that a sentient being might take in the existence or flourishing of the natural entities in question. It is not necessary to make the mistake of imagining oneself present as an observer in order to intuit such value, though this mistake may be hard to avoid, for it is possible to take satisfaction in the idea of something's existing or flourishing (one's great-grandchildren for example) even though one will never experience the reality. Such arguments fail, therefore, to demonstrate that the objects in question are morally considerable for their own sake.

A further argument to bridge the gap between having goods of one's own and being morally considerable is put forward by John O'Neill, continuing the Aristotelian theme:

Human beings like other entities have goods constitutive of their flourishing, and correspondingly other goods instrumental to their flourishing. The flourishing of many other living things ought to be promoted because they are constitutive of our own flourishing. This approach might seem a depressingly familiar one. It looks as if we have taken a long journey into objective value only to arrive back at a narrowly anthropocentric ethic. This however would be mistaken. It is compatible with an Aristotelian ethic that we value items in the natural world for their own sake, not simply as an external means to our own satisfaction.⁵²

Like many others in the field, O'Neill is taking the ascription of *intrinsic value* to non-human nature as the touchstone of a non-anthropocentric environmental ethic. This is problematic since, as O'Neill points out, the term 'intrinsic value' is used in a variety of different senses, including non-instrumental, non-relational, and objective value.⁵³ O'Neill's view, however, is

⁵² O'Neill 1993, p. 24.

⁵³ One response in the face of such differences is to argue for a particular usage as being more semantically accurate, or more conducive to philosophical clarity than the others. Thus Karen Green (1996), following Christine Korsgaard (1983), argues that 'intrinsic value' is properly understood in contrast to 'extrinsic value', as non-relational value (or, in G. E. Moore's terms, value that depends solely on the intrinsic nature of the thing in question, not its relations to anything else), and that this usage preserves important distinctions that are lost when intrinsic value is equated with non-instrumental value. But while I am in sympathy with this argument, it seems to me that the pervasiveness of other usages is such that clarity will best be served not by stipulating a particular sense of 'intrinsic value' but by substituting terms such as 'non-instrumental', 'non-relational' and 'objective', or at least by qualifying the use of 'intrinsic value' in these or other terms.