Introduction

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The philosophy of nature is at least as old as the presocratics, but has undergone comparative neglect in philosophical circles this century until recently, at least in English-speaking lands. The philosophy of science concentrates on scientific concepts and methods and the interpretation of scientific theories, rather than on the concept of nature itself, while, with significant exceptions (e.g., Hepburn, 1984), aesthetics focuses on the experience of art rather than on that of nature. Meanwhile moral, political and social philosophy has focused on the social environment, but the natural environment has often been lost to view. Indeed it has been argued, with some cogency, that mainstream Western metaphysics, epistemology and ethics have historically been inhospitable to conservation, to environmentalism and to their values (see Hargrove, 1989; Attfield, 1994a).

All this, however, is beginning to change, in Britain as well as overseas. Environmental ethicists have for some years now been arguing for revisions of ethical theory; the Society for Applied Philosophy held its 1986 Annual Conference on environmental and animal welfare themes; and a series of public seminars of that Society on environmental values continues to be held at the University of Lancaster, where the journal *Environmental Values* is also edited. Yet the 1993 Cardiff Conference of the Royal Institute of Philosophy was the first large philosophical gathering in Britain held to consider the themes of nature, the natural environment, and related issues of value, ethics and society. In view of the greater impact of environmental philosophy in recent years in the USA and Australia, it was fitting that several of the speakers came from those countries, including the keynote speaker (and President of the International Society for Environmental Ethics), Holmes Rolston III.

Rolston, already well-known for his championing of objective value in the natural world, fascinated his audience with an audiovisual presentation which argued for the presence of valuing and thus of value throughout the organic realm. This undertaking was accomplished (as in Rolston's paper here) by presenting an opposing point of view, and progressively undermining it. Rolston also well defended (and here defends) viewing ecosystems as real enti-

ties and not just epiphenomenal aggregates, in that they shape the existence and the behaviour of their members; more precariously he ascribes to them and to the Earth a distinctive kind of value, systemic value, which is neither intrinsic nor instrumental, and which makes these other kinds of value possible. His main conclusion, however, is that there can be value without subjective valuers, and that such value is possessed by all organic beings, processes and systems.

Some of Rolston's questioners clearly considered his account of valuing an over-extended and attenuated one, and suggested that the intrinsic value of natural creatures is not dependent on activities of valuation or self-defence or value-generation on their part; while others such as Frederick Ferré (see his 'Highlights and Connections') were not convinced that species and ecosystems are units either of valuation or of independent value. Even if natural selection is more careful with species than with individual organisms, the reply could be made to Rolston that this does not imply that species themselves have intrinsic value, or that a 'biocentrism that focuses on individuals' (p. 22) is mistaken. But this would in no way undermine the possibility of value without subjective valuers, a theme debated further by Attfield, Elliot and Ferré.

Robert Elliot defends a subjectivist view of meta-ethics as adequate to underpin a normative belief in the intrinsic value of nature. Further, the properties which confer this value are nature's otherness, its aesthetic value, and its evolutionary, non-purposive origins. In meta-ethics, Elliot attempts to disabuse objectivists of the belief that subjectivism makes values contingent on the existence and views of human valuers; here he shows that actual valuations made in our world could apply to worlds empty of valuers, but does not show how there could be values even if no valuers had ever existed or valued.

In his conclusion he reports himself as having suggested that 'non-anthropocentric meta-ethics . . . is not possible' (p. 42); but this is a stronger conclusion than any for which a case is presented. Salient arguments are earlier furnished for the consistency of his account of value-adding properties with certain claims of restoration ecologists; further arguments, however, would be needed to convince those reluctant to grant that aesthetic value is a kind of intrinsic value, or that the non-purposive is valuable as such, or indeed intrinsically superior to the purposive.

Robin Attfield also discusses the metaphysics and ethics of ecological restoration, rejecting the view of Eric Katz that restorations are artefacts and that restoring nature is impossible, and maintaining that an area with the same flourishing creatures has the same intrinsic (as opposed to aesthetic) value whatever its origins. If so, the intrinsic value of a wilderness does not principally consist in its wildness. The possibility of enhancing an area's value could imply an obligation to do so, but only when ecosystems are sufficiently understood to facilitate success.

Commenting on the recent Rolston/Callicott debate about wilderness, Attfield grants that a pure wilderness cannot be managed, but argues that rehabilitating a wilderness (e.g., through returning lost species) is sometimes desirable, and at the same time that nature can retain its value when transplanted into cultural settings such as parks, gardens and city streets. Against Rolston he argues that sustainable development need not be an anthropocentric policy and with Callicott that it can be ecologically benign, as well as satisfying human needs; thus 'there is in general a stronger obligation to support and implement sustainable development than there is to enhance the value of natural areas' (p. 55). Humanity has the role of making nature sustainably habitable, as well as of rehabilitating it. To this metaphysical conclusion. Attfield adds his support for a Rolston-like meta-ethics, as defended elsewhere (and in Rolston's paper). Attfield's belief in the possibility of value in the absence 'of all valuers actual and possible' was to provoke astonished dissent from Ferré (p. 231).

Meanwhile Ferré's main paper seeks to reconcile the objections to individualism of the Organicism which he finds in Deep Ecology with the Personalism which he finds Deep Ecologists to presuppose despite themselves. To accomplish this, he advocates the rejection of All-or-Nothing attitudes and the adoption of Personalistic Organicism, incorporating a Whiteheadian valuetheory recognizing degrees of value, plus a matching ontology; in support, he argues for degrees of subjectivity throughout the organic realm, and for the heightened presence of key characteristics of non-human organisms in the lives of persons.

Personalistic Organicism provides a way out of otherwise intractable problems such as the mind-body relation and the nature of the value-theories of deep ecologists; and recognizes 'perspectival anthropocentrism', since 'we have no choice but to think as humans'. Relatedly Ferré proceeds to assert an account of intrinsic value which ties it conceptually to experiencing valuers; most aspects of Personalistic Organicism, however, seem not to depend on acceptance of this account.

In the cause of elucidating what makes one world better than another, Roger Crisp makes some valuable distinctions among goods, incorporating a sense of intrinsic value which makes a thing's intrinsic value independent of external contingencies (including the enjoyment of experiencing subjects). What is less

clear is that beauty, his example of this, is intrinsically valuable, i.e., valuable even if never appreciated, as well as being good as an end and good objectively; even if beauty lacked intrinsic value, it could still be a value which supplies some of the point of the development of people's faculties for aesthetic appreciation. For Crisp, moral values too, such as justice, have a value independent of their impact on individual welfare; but the thought-experiment introduced to attest this (p. 82) proved controversial at the Conference.

While rejecting a general obligation to maximise value, Crisp recognizes that maximising value always supplies a reason for action, except where nothing could motivate this. Crisp now adduces a further thought-experiment to show that in the present state of the world aesthetic value (and therewith, claims Crisp, the philosophical stance of deep ecology) is standardly trumped by welfare values, since the relief of suffering supplies a stronger reason, though in fact the links between the projects of development and of environmental conservation mean that both sets of values can usually be promoted simultaneously. He adds that such efforts have a self-interested pay-off, and thus his motivation condition is satisfied.

Horrified at technological proposals for 'terraforming' Mars (and making it habitable like Earth), Keekok Lee constructs a quite different concept of intrinsic value applicable to abiotic nature. Lee's intrinsic value applies to whatever satisfies the No-Teleology Thesis (existing for itself), the Autonomy Thesis (not depending on humanity for origination or survival) and the Asymmetry Thesis (depended on by humanity but independent of it). Since Mars satisfies these theses, it befits us to treat it with awe and humility, and as bearing intrinsic value.

Lee recognizes that she is committed to there being value in 'the existence of any material entity which is independent of human design and effort' (p. 99). (If purists resist calling this 'intrinsic value' it can be called 'human-independent value' instead.) But she replies that the contrary view stems from strong anthropocentrism, the stance which makes humans both the source and the locus of value, or else from 'biocentric chauvinism', for which abiotic nature is valueless unless it has value for biotic nature, and which defines value in terms of living interests. To avoid such arbitrariness we should respect intrinsic value in Lee's sense, and reject the terraforming of Mars. Doubts could be felt, however, about whether this rejection should stand if considerable value (in the ordinary, reason-giving, sense, relating perhaps to the flourishing of life) were to conflict with intrinsic values (in Lee's sense).

Anthropocentrism is also targeted by Mary Midgley, who, how-

ever, acknowledges that people have no choice but to be specially interested in themselves and those close to them (Ferré's perspectival anthropocentrism). Midgley's criticism is focused on the kind of Enlightenment belief in human centrality expressed in Kant's view of man as 'titular lord of nature' and nature's 'ultimate end', and, despite the erosion of this belief on the part of numerous intellectual developments of the last two hundred years, on the Strong Anthropic Principle that 'The Universe must have those properties which allow life to develop within it at some stage in its history' (p. 107).

This principle makes the central business of the universe the production of man the physicist, whose observation of quantum events makes the universe at last fully and properly real (p. 108); but this, Midgley argues, is not science, but a piece of wild metaphysics, motivated by fear of cosmic insignificance. While everyone needs a background framework giving life a meaning, there is no need for the kind of anthropocentrism which amounts to 'human chauvinism' or 'exclusive humanism', particularly when (as Crisp also maintained) the measures needed to save humanity and to save the rest of the biosphere are, for practical purposes, the same. Humanism of the exclusive kind (effectively the new religion of 'anthropolatry') is indefensible; and philosophers need to work hard to forge and explain less egoistic and less individualistic alternatives.

Stephen Clark suggests that only religious commitment, transcending the petty limits of our time and space, can allow us to tackle our social and environmental problems. Religion is often blamed for the crisis, but the supposed 'Christian axiom' of Lynn White that 'nature has no reason for existence save to serve man' bears little relation to the Bible or the Koran, or again to medieval Christianity. Nor should blame be directed at the Enlightenment, with its deprecation of waste and concern for posterity, or even at Descartes, who actually attacked individualism; the problems stem at least as much from 'the ordinary need of people to make a better life' (p. 119).

Nor do we need a *new* religion, Clark continues. Romantic myths of a lost world of harmony with nature do not solve ecological needs, any more than an objectivism which defines the real world as what does not matter. Rather we need a real appreciation of the world's Otherness and our dependence on it, as in sacramental theism, as opposed to folk Christianity. Sacramental theism teaches that we do not own the world, but enjoy its fruits as a gift on condition of leaving as good for others, and also that the one true religion is to do justice and love mercy and walk humbly

with the one God. This 'global religion' is present alike in Judaism, Islam and Christianity; this, Clark considers, if anywhere, is where hope of confronting the crisis is to be found. (Others, however, may find hope in a Stoicism which yokes cosmic piety and Enlightenment values.)

Tim Havward, in any case, seeks to rehabilitate Kant, with regard to the widespread charge (of John Passmore (1980), Christina Hoff (1983) and others) that he denies moral standing to non-rational beings. The charge is sometimes that Kant subscribes to the 'patient-agent parity thesis': only creatures which can do wrong can be wronged. But this charge reduces to the 'no direct duties thesis'. Where this means that Kant denies non-rational beings rights-bearing status, it is accurate but beside the point, since the critics mostly deny this too. Alternatively this could mean the denial that direct duties are owed to such beings for their own sake; that their good sometimes generates a duty to pursue that good. Some ethicists who accept this view allow that whether obligations are generated depends not just on having moral standing but also on having moral significance; but where non-rational creatures are concerned, Kant could endorse such moral standing but resist particular claims about moral significance on a basis of our lack of knowledge of the creature's good. On the same basis Kant could resist the alternative view of ethicists such as Paul Taylor that creatures with a good of their own have (equal) moral worth which entitles them (one and all) to respect. Unless Kant is wrong about knowledge, his position remains secure, and does not involve denving moral consideration.

Hayward's diagnosis of the problem concerns the issue of moral standing or considerability being conflated with other issues such as Kant's denial of rights for non-rational creatures and his not treating their good as the reason for duties in their regard. He therefore proposes a refined terminology: 'bare considerability' to mean ability to be taken into consideration, even if only instrumentally or incidentally; 'vested considerability' to mean having some specific significance; and 'moral standing' to mean capacity to bear rights. (But it could be replied to Havward that both 'bare' and 'vested considerability', which would now apply to the instruments of moral action, would be too weak to cover beings which must morally be taken into consideration for their own sake, and 'moral standing' (Hayward's proposed sense) would be too strong for this role. So Kenneth Goodpaster's concept of moral considerability would have to be reinvented.) Finally Hayward suggests (optimistically?) that Kant is correct in his belief that the imperatives of human dignity are incompatible with inhumanity to animals and with irresponsible treatment of the environment; this may involve the kinds of anthropocentrism favoured by Midgley or Elliott, but not the 'human chauvinism' which Midgley rejects.

Nigel Dower points out that the very concept of the environment itself is worth careful attention. From David Cooper he derives the thought that the environment can be understood as a field of significance, in which a person or animal might (or might not) feel 'at home'. Yet the environment can also be a system of causes and effects, ecological as well as causal, and there must be an environment in this sense if there are fields of significance. Indeed Cooper is criticised for rubbishing talk of saving the global environment, when what is amiss is not the concept of environment embodied in such talk but (often) the implicit normative principles; and also for presupposing the very causal-system sense of 'environment' which he rejects. Dower now elaborates a whole battery of distinctions, which serve to indicate how the concepts of fields of significance and of causal systems interrelate and overlap; and proceeds to argue that there is a widespread mismatch between fields of significance (environments with which people identify) and the global environment, which is being allowed to deteriorate and to disrupt perceived environments.

For Dower, then, the challenge is to render the global environment into a field of significance, not through homogenised attitudes to the planet but through diverse adjustments in perceptions and life-styles, sufficient to allow the common environmental base to be sustained. For fields of significance can be meaningful without being good, and offer possibilities to human beings for their modification. Indeed the single concept of having an environment involves both there being a surrounding objective causal system and having a field of significant possibilities. Such is the duality of the concept of the environment that one can change one's environment either through physical modification or through changed perceptions. One's environment may also, he claims, have a moral character, something relevant to concern for the state of the objective physical environment. Thus a recognition of environments as fields of significance, far from leading us to reject the global for the local environment, can prompt a reconceptualising of concern for the shared environment and of its significance for individuals.

In 'Chaos and Order, Environment and Anarchy', Andrew Belsey first stresses the presocratic concept of cosmos, which is both an ordered and intelligible universe and a value-laden, beautiful one. Despite Plato's attempts in *Timaeus* to reintroduce the supernatural, his cosmos too is regular and free of supernatural intrusions, as indeed, according to Vlastos, must be the universe

which is presupposed by natural science. This cosmos is recognizably the environment, in the widest possible sense. Belsey, like Dower, here contests Cooper's rejection of any environmentalism based on a concept of the global environment. While sharing Cooper's scepticism about religious reverence, Belsey argues that Cooper's concept of environment is self-undermining and also impractical; for the problems concern the shared, global environment, and local resistance alone cannot tackle them. Nothing less than at least a planetary outlook will suffice—for these purposes or, perhaps, for giving meaning to life.

Now Plato sought to derive an ordered political philosophy from his understanding of nature; but the very imposition of order shows, as anarchists have pointed out, that it is not natural at all. Anarchists such as Herbert Read have their own account of the natural, one more congenial to ecologists, by which if everything follows its own nature, all is well, but disaster ensues if a species departs from its nature. Here there is common ground between the anarchists and the presocratics, with their understanding of nature as balance and as harmony; without any attempt to discover the 'Mind' of 'Nature', awareness of laws of nature (such as those of entropy and of evolution) and of the facts about continuing ecological disruption shows how life can be lived in accordance with nature's balance. Thus the anarchist recapitulation of presocratic cosmology can be of ecological value, even if the issue of how to relate anarchist approaches (of local autonomy and democracy) to global problems is unresolved. Solving the problems involves both transforming society and 'a proper appreciation of the cosmos'; and thus 'liberatory cosmology' (p. 167).

Alan Holland examines the viability of what he calls the 'social scientific approach' to sustainable development, i.e., the approach of David Pearce and his fellow-authors of Blueprint for a Green Economy (Pearce et al., 1989). These authors call for capital (capital wealth or productive potential) to remain constant over time, either in the form of overall capital (including human-made capital) or of natural capital. But the first alternative (overall capital) does not debar irreversible developments, despite the authors' belief to the contrary; and the second (natural capital, the approach preferred by the authors), if interpreted as concerning constant physical stock, prohibits using non-renewable resources, and, if interpreted rather as concerning the economic value of natural assets being held constant, reintroduces technological means of raising that value, and thus licences, for example, destroying a wilderness to increase productive potential. Justifications of all this in the name of justice to future people fail to capture what

environmentalists have in mind. Besides, it can be shown that several of the criteria associated with considerations internal to theories of justice (non-substitutability, uncertainty, irreversibility, resilience) do not favour preserving all natural capital.

Holland suggests that, despite their disavowals of a 'values-innature' view, something of this kind is to be ascribed to the authors of *Blueprint for a Green Economy* to account for their tenacious defence of natural capital. Similarly the appeal to loss aversion as a ground for protecting natural capital indicates an evaluative commitment to preference utilitarianism in general and to this particular aversion (as opposed to others) in particular: further signs of undisclosed values on their parts. After making some parallel criticisms of Bryan Norton's position, Holland suggests that what the social scientific approach omits is the importance of maintaining the integrity of ecosystems, and thus 'enough of the historically particular forms of association and their historically particular components' (p. 178).

Hence physical stock is what should be valued and preserved; indeed the claim that the actual natural world as we know it is good is eminently defensible, and no defence of the environment is secure without it. (Here, it may be remarked, is natural piety of the kind commended by Clark; yet, even if vindicated, it hardly demands the preservation of physical stock in general. 'Enough' preservation of the actual world could well be consistent with many life-enhancing uses even of non-renewable resources, even if anthropocentric *Blueprints* present inadequate values and thus inadequately grounded policies.)

Peter List draws attention to the dearth of philosophical treatments of the ethics of ecological protest. He proceeds to argue, in the light of actual cases of ecological civil disobedience in America. that standard philosophical accounts of the justification of such protests are inadequate. His first example concerns non-violent obstruction of the logging of an old-growth forest. While the protesters are seeking moral and legal recognition of non-human species and the importance of the integrity of ecosystems, accounts of justifications of civil disobedience such as that of John Rawls disallow disobedience which is not focused on the basic principles of justice as selected by rational humans in the hypothetical original position. Unlike Elliot, List does not attempt the heroic task of bringing ecological goods within Rawls's system; rather he concludes that such anthropocentric theories are fundamentally inadequate at coping with ecological values and their social implications. (This being so, nothing less than a new social and political philosophy will be needed.)

List goes on to cite the defences of protesters who ram drift-net fishing boats in the Pacific, appealing by way of justification to the moral implications of laws of ecology. When these defences are juxtaposed with Carl Cohen's account of civil disobedience, again they appear to fail. Cohen's account recognizes both utilitarian justifications (but these are not in question) or appeals to higher law; but appeals to higher law fail for lack of public verification of the alleged laws and the lack of a tribunal which could validate them. The candidate higher laws cited by List all fall short on these criteria; but, as he maintains, this degree of precision and security cannot plausibly be required, as the moral case for such action is quite intelligible without it. Instead of coming up with well-attested ecological laws of nature, ecology can supply 'general ethical principles that are verified by common sense and ecological application in particular instances', which are also "first-order ethical principles" that humans violate at their peril and at the risk of damage to non-human life and natural systems' (p. 197). Sooner than wait for unrestricted ethical knowledge, List may be implying, the ethics of protest requires recognition of an equivalent of the Precautionary Principle increasingly recognized in Europe in the ethics of policy, which authorises action to avert irreversible ecological damage in advance of full evidence and the knowledge which it might bring. Conscientious protest at ecological injustice could then be acknowledged as such.

Dale Jamieson too draws attention to philosophers' tendency to tackle old problems and neglect current ones. Treating it as established that there are international obligations, he addresses issues surrounding global environmental justice. One such issue could concern expanding the beneficiaries of justice to natural entities, but this is not what people usually have in mind. (If so, should not philosophers seek to make it more prominent?) On another sense of 'global environmental justice', 'environmental' serves as a constraint, for example, on international redistribution; the issue here is whether global justice can permissibly be pursued only in an ecologically sensitive manner. But more often 'global environmental justice' concerns the international (re)distribution of the environment, conceived as a commodity, or of the related costs and benefits. Compensation for past exploitation would be an example; and 'big picture' theories of justice, like Rawls's, are of at least apparent relevance. But the very aims of ecological benefits support that conditionality whose advocates were so embattled with those of sovereignty at the 1992 Rio de Janeiro Conference. Unconditional transfers seem not to be in the interests of donors or, sometimes, of the recipients, and certainly not of nature or of populations in Third World countries.

Jamieson regards these problems as a reason against regarding the environment as a commodity to be distributed in accordance with international justice: other problems concern how some environmental 'commodities' like the ozone shield have benefits which cannot be distributed, and how some are irreplaceable and beyond compensation. (Yet arguably there are parallel problems with health provision, which do not erode international obligations in matters of health care.) Lastly Jamieson suggests that the obligations of global environmental justice do not all attach to governments; some belong to non-governmental organisations, scientists or individual consumers. (The condition, one that Jamieson would accept, must surely be that the responsibilities of governments and international agencies like the IMF are in no way reduced by this recognition.) Jamieson adds that the environment cannot be regarded solely as a commodity, as it surrounds and nurtures every one of us; but, as Dower shows, these facts do not reduce international duties with regard to the common global environment, on which all local environments depend.

Ruth McNally and Peter Wheale break new ground in a different way. Bioethics, they suggest, is engaged in a socio-technical process in which modernity, as characterised by Anthony Giddens, is being transformed into a new post-modern and possibly not wholly dystopian order. While their main example of a challenge to the institutions of modernity concerns genetic engineering and the associated discourse, they are clearly committed to the view that one of the transforming factors is located in environmental bioethics as well as medical bioethics. For the reflexive process in which society responds to systems of knowledge and to challenges to these systems is fostered by diminished trust that the institutions of modernity can cope with current environmental problems, as well as the problems arising from genetic engineering. So environmental concern, and the associated discourse of environmental bioethics, is represented as one of the harbingers of a new dispensation.

While there is some evidence to the contrary, for example in the recent decision of the British government to go ahead with the THORP reprocessing unit at Sellafield, there is evidence in favour of their thesis too, such as the frequent genuflections of this and other governments to the goal of sustainable development and the discourse of the Brundtland Report of the World Commission on Environment and Development (1987). Environmental philosophy too, then, could be contributing, however indirectly, to the emergence of a new world.

The final paper embodies Frederick Ferré's overview of the

Conference. Ferré elegantly warns against premature resort to bipolar oppositions in the philosophy of nature, commending instead epistemological holism, a metaphysics in which (*pace* Rolston) the natural and the artificial are not contradictory categories, and a value theory which reconciles subjectivism and objectivism.

In this theory, value is located wherever there are organisms, and yet there are no values without valuers; for all organisms are themselves valuers (a theme reminiscent of Rolston's stance, for all that Ferré criticises Rolston here for resort to binary opposition). But if (it might be replied) values always supply reasons for action, there is no need to detect the presence of valuers or valuation before recognizing the presence of value, however cogent the argument may be for the actual occurrence (or at least the potentiality) of valuing throughout the organic realm. Given his own valuationrelated sense of 'value', Ferré's blend of objectivism and subjectivism has some cogency, but it has no tendency to undermine the objectivist case that the well-being of creatures is of value (in the reason-giving sense) independently of the activities of valuers, even if some of these creatures turn out to be incapable of subjectivity and of valuation. To maintain otherwise is a premature (albeit sophisticated) resort to a binary opposition, presenting all entities as either valuing or (intrinsically) valueless.

While these papers will have served a purpose insofar as they variously further the debates (to borrow Rolston's title) on the value in nature and the nature of value, on environmental ethics and also on the very concept of the environment, they also bring forcefully to light the need for further work on political and social philosophy, on aesthetics and also on ontology, of a kind which takes these debates seriously.