24

Environmental ethics

ROBERT ELLIOT

i What is an environmental ethic?

KAKADU NATIONAL PARK in Australia's Northern Territory, contains rugged woodlands, swamps and waterways supporting a rich variety of life; it contains species found nowhere else, including some, such as the Hooded Parrot and the Pig-nosed Turtle, which are endangered. Kakadu affords aesthetic enjoyment and recreational and research opportunities. Many think it is a place of immense beauty and ecological significance. It is of spiritual significance to the Jawoyn aboriginals. Kakadu is also rich in gold, platinum, palladium and uranium, which some think should be mined. If this happens then, environmentalists claim, aesthetic, recreational and research opportunities will be reduced, the beauty of Kakadu will be lessened, species will disappear, ecological richness will decrease, the naturalness of the place will be compromised and the spiritual values of the Jawoyn discounted. Mining already goes on in the Kakadu area and there is pressure to allow more. Should more mining be allowed? Should any mining at all be allowed? How exactly might we reach answers to these ethical questions?

Empirical or factual evidence certainly plays a role. For example, opponents of mining claim that it is likely to pollute rivers, poison wildlife, endanger species and disrupt ecosystems. This opposition to mining relies on empirical claims; that is, claims about what does and will in fact happen. Many supporters dispute these empirical claims and there are some who think that even if the claims are true it is better to go ahead with mining. Settling the facts does not ensure that the issue is settled. Arguments about such facts only have point, only make sense, against a certain kind of background, and differences in this background give rise to different assessments of what should be done. What constitutes this background are such things as desires, preferences, aims, goals and principles, including moral principles. An environmentalist might want to know whether mining is a threat to wildlife because he or she desires that wildlife be protected or, more seriously, because he or she thinks it is morally wrong to cause the death of wildlife. The evaluative background need not include moral principles; some people might be amoral. (They might be the kind of rational egoists described in Article 16, EGOISM.) However, many people do want their own actions and the actions of others, including corporations and governments, to conform to moral principles. For such people the resolution of the Kakadu controversy requires an appeal to principles which offer moral guidance in our treatment of wild nature and which

enable us to answer questions like: would it matter if our actions caused a species to become extinct? Would it matter if our actions caused the death of individual animals? Would it matter if we caused widespread erosion in Kakadu? Would it matter if we turned the South Alligator River into a watercourse devoid of life? Is it better to protect Kakadu or to generate increased material wealth which might improve the lives of a number of people? Is the extinction of a species an acceptable price to pay for increased employment opportunities? Such sets of principles, which would guide our treatment of wild nature, constitute an environmental ethic in the most general sense. There is a variety of competing, including partly overlapping, environmental ethics.

People who have views of a moral kind about environmental issues are committed to an environmental ethic consisting of at least one, but usually a number of principles. Consider environmentalists who say that the extinction of species as a result of human actions is a bad thing, maybe even a bad thing no matter what the cause. This might be a basic principle in an environmental ethic. Without having explicitly represented it as such, an environmentalist might nevertheless be committed to the view that the extinction of species etc. is bad considered in itself, quite apart from any consequences it might have. Another possibility is that the principle is not itself basic but rests on a principle enjoining concern for human welfare, combined with the belief that humans are harmed by the extinction of species. Making the ethical commitment explicit is a first step in subjecting it to critical appraisal or justification. Justification is necessary if we are to adjudicate between the various competing environmental ethics we encounter. It is not enough that an environmental policy conform to the principles of some or other environmental ethic, it should conform to the correct, or best justified, one. We have two questions: how might an environmental ethic be fleshed out? How might putative environmental ethics be justified?

1 *Human-centred ethics*

Some think that environmental policies should be evaluated solely on the basis of how they affect humans (see Baxter, 1974, and Norton, 1988). This entails a human-centred environmental ethic. Although the classical utilitarians include animal suffering in their ethical calculation, a variant of utilitarianism, which enjoins us to maximize the surplus of human happiness over human unhappiness, is one example of a human-centred ethic. Taking this ethic seriously obliges us to calculate the varying effects of the Kakadu options on human happiness and unhappiness. We might discover that mining would reduce the ecological richness of the wetlands and that if this happened then some people would be made unhappy; for instance, some might be moved by the plight of individual animals, some might be saddened by the loss of species, some, including members of future generations, might miss out on the chance of particular recreational or aesthetic enjoyments, some might be adversely affected by resultant climatic changes, changes in flood patterns and so on, some might be psychologically harmed by the despoliation of areas to which they have a spiritual attachment. These negative effects would have to be subtracted from any increases in happiness which

resulted from mining in Kakadu. A human-centred ethic could lead to substantial agreement with environmentalists about policy. This would depend on the facts about the effects on humans of changes to the natural environment. However, this decision would have been reached by considering the interests of humans alone. A helpful way of putting this is to say that this ethic treats only humans as morally considerable. Something is morally considerable if it enters into ethical evaluation in its own right, independently of its usefulness as a means to other ends. Consider the Pig-nosed Turtle. On the human-centred ethic just now described neither the species as a whole nor the individual members of it are morally considerable: it is only the happiness and unhappiness of humans which is morally considerable and this might or might not be affected by what happens to the turtles.

2 *Animal-centred ethics*

There is a view of ethics which counts not only humans as morally considerable but non-human animals as well; it includes all animals in its scope. Many of the things which we do to the natural environment do affect non-humans adversely and this, it is suggested, must be taken into account. For example, if we thought that cyanide pollution in the South Alligator River would cause non-humans to suffer then this is a moral minus which must be taken into account independently of how things will be for humans. The example is not fanciful: consider the effect on non-humans caused by clear-cutting forests, damming river valleys, quarrying mountains, constructing pipelines and so on. An animal-centred ethic enjoins the moral consideration of individual animals not of species: what happens to species is only of indirect concern insofar as it affects individual animals.

While an animal-centred ethic counts all animals as morally considerable it does not necessarily rank them equally. A useful way of putting this is to say that some animal-centred ethics will accord different moral significance to animals of different kinds. One form this differentiation might take involves the arbitrary, and many would say unjustified, discounting of the interests of non-humans simply because they are the interests of non-humans. Just how this will affect judgements about policy will depend on the degree of the discounting. It could be such as to make human interests always count for more than non-human interests no matter what the intensity or strength of the interests and no matter what the numbers involved. It could be such as to allow stronger or more numerous non-human interests to prevail over weaker or fewer human interests. Avoiding arbitrariness seems to require that equal interests be treated equally. This would leave scope for differentiation, which might still be made on the basis of interests which not all animals have. For example, humans have a capacity for developing theoretical knowledge or for rational autonomous action, which are arguably not capacities of kangaroos. These capacities might underpin certain interests which, because they lack them, kangaroos could not have. Such additional interests might swing a decision in favour of humans and against kangaroos. This is particularly likely in, although not restricted to, cases in which their common interests are equally threatened or equally protected: the appeal to the additional,

unshared interest acts as a tie-breaker. Imagine that some important medical breakthrough depended on confining either humans or kangaroos. Keeping kangaroos in a very large enclosure in order to study them may be morally preferable if it threatens no interests of theirs; if they are not treated cruelly, if they are fed, if they are able to behave according to their nature. Confining humans in the same way is not morally acceptable because of the additional interests of humans. This mode of differentiation treats equal interests equally regardless of species and it also allows that unshared interests leave room for degrees of moral significance. (See Article 30, ANIMALS, for further discussion of animal-centred ethics.)

3 *Life-centred ethics*

The class of living things includes more than humans and non-human animals; it includes plants, algae, single-celled organisms, perhaps viruses and, it is sometimes suggested, ecosystems and even the whole biosphere itself (See Attfield, 1983, Goodpaster, 1978, and Taylor, 1986). The complexity of a life-centred ethic will depend on how the question 'What is living?' is answered. However this question is settled it will make much of the idea of a self-regulating system which strives, not necessarily consciously, towards certain goals. Moreover, it is this feature which is typically supposed to confer moral considerability on living things. A life-centred ethic counts all living things as morally considerable, although not necessarily of equal moral significance. So, it might be better to save a Pig-nosed Turtle than a waratah shrub, even though both are morally considerable. The former, however, might be more morally significant because it is a more complex living thing. Here complexity acts as an intensifier: if living, then the more complex, the more morally significant. To take a different kind of case, it morally might be preferable to save some plant rather than to save the Pig-nosed Turtle, because only that plant can fill its particular ecological niche, whereas the Pig-nosed Turtle fills a niche that perhaps could be filled by similar turtles of a different species. Here the differentiation is based on a moral assessment of the respective consequences of the plant ceasing to exist and the Pig-nosed Turtle ceasing to exist, and not on internal characteristics of the living things themselves.

A life-centred ethic requires that in deciding how we should act we need to take account of the impact of our actions on every living thing affected by them. For example, if mining goes on in Kakadu, it will involve cutting down trees and destroying other plants; it will cause the death of some animals and impair, if not destroy, wetland ecosystems. These facts and others count against mining and collectively must be weighed against the good things that might result if mining does go ahead. Since the good things would seem to include only material benefits for some humans, it would be difficult to do the evaluation sum in such a way that it sanctioned mining. This is not so say that it is never morally permissible to fell trees, to flatten dunes, to kill animals, to modify ecosystems and so on. Whether it is permissible depends on what the outcomes are and on differences in moral significance within the class of the morally considerable. A life-centred ethic, incidentally, might take a radical form: it might claim that not only are all

living things morally considerable but also that they are of equal moral significance. (See Naess, 1979.) This biotic egalitarianism, if it could be justified, would make it very difficult indeed to defend morally human interventions in the natural environment. It would allow only quantitative judgements; for example, that two living things count for more than one. Most proposed life-centred ethics allow for differential significance within the class of living things, although humans might not be counted the most significant. The preservation of the biosphere and of large ecosystems might be thought more significant than the preservation of large numbers of humans.

4 *Rights for rocks?*

The ethics so far considered each evaluate actions by considering consequences for individuals and adding them. What distinguishes these ethics are the kinds of individuals within their scope; moreover, the later ones include all individuals included by earlier ones in the list. It could be argued that we are drawn inexorably to a life-centred ethic; that there is no non-arbitrary way of stopping the drift from the ethic of narrowest scope to the ethic of widest scope. Why not take the argument another step and count non-living things too as morally considerable? There is no attempt here to attribute a mental life or a point of view to non-living things; that would be to enter into an entirely different dispute. The claim is that non-living things, which, like many living things, lack consciousness and which also lack even rudimentary biological organization, are morally considerable. Call this ethic the 'everything ethic'.

Take rocks for example. Mining will involve smashing up rocks, disturbing geological structures, spoiling fossils and the like. Is there anything wrong in doing these things? Here we must take care to forget for a moment the consequential damage which would be done to plants, animals and ecosystems; we must ask whether these things would be wrong considered in themselves. Another example might highlight the issue. Imagine a plan to test a missile by firing it at some distant and completely lifeless celestial body which will be thereby destroyed. Would this be wrong considered in itself? On the ethic which attributes 'rights' to rocks, so to speak, it would be. All things considered it might not be wrong, but according to this ethic that is a case which must be made. Like the life-centred ethic, this one can be fleshed out in a variety of ways. It may allow degrees of moral significance and attribute comparatively minimal moral significance to non-living things. It may mirror biological egalitarianism and deny that there are gradations of moral significance, or it may fall somewhere in between.

5 *Ecological holism*

It was earlier said that any ethic which would guide us in our treatment of the natural environment is, in the most general sense, an environmental ethic. The term 'environmental ethic' sometimes has narrower uses. It is sometimes used to indicate an ethic which counts as morally considerable individuals other than humans and which provides some solid purchase for the moral demands of

environmentalists. A life-centred ethic is an environmental ethic in this sense, an animal-centred ethic less clearly so. However, some reserve the term for a specific ethic, ecological holism, presumably because they think that only such an ethic provides morally satisfactory protection for the natural environment. (See Callicott, 1979.) Ecological holism counts two kinds of things as morally considerable; the biosphere as a whole and the large ecosystems which constitute it. Individual animals, including humans, as well as the plants, rocks, molecules etc. which constitute these large systems are not morally considerable; they matter only insofar as they contribute to the maintenance of the significant whole to which they belong. Why should we worry if some species is caused to become extinct? We should worry not because of what this implies for its individual members or even for the species itself but because the extinction runs counter to the goal of maintaining the biosphere or ecosystems. It is a moot point whether ecological holism should be thought to differ structurally from the other ethics. They had as their focus individuals, and 'holism' might be thought to signal a different focus. However, it is possible to view the biosphere and ecosystems as individuals, albeit extremely complex ones. If so, the holism amounts to the view that individuals many have hitherto regarded as morally considerable are not. Note that, although the principles of ecological holism differ from those of the other ethics, this does not entail that it differs from all of them in its policy implications. The life-centred ethic and the everything ethic are likely to sanction similar environmental policies as a result of the nature of the mechanisms which maintain ecosystems and the biosphere. Also, it is possible to combine ecological holism with any of the other ethics described. If, for instance, it was combined with the animal-centred ethic we would be enjoined to consider the interests of animals and the goal of biospheric maintenance. Where these conflict, for example in some odd case where animals can only be saved by simplifying an ecosystem, then some kind of trade-off or balancing would be required.

ii Justifying an environmental ethic

It is not too difficult to appreciate what is compelling about the claim that humans are morally considerable. Most obviously they are considerable because they have interests which can be harmed or advanced. These interests are based on capacities which humans have; for example, the capacity to experience pain and pleasure, the capacity for rational choice, the capacity for free action. Less obviously, they are considerable because of properties or characteristics which they possess which do not give rise to interests, to things in which they themselves have a stake. For example, it might be argued that anything which has the property of being a complex living thing is, to that extent, intrinsically valuable, which is to say that there is a moral reason for preserving it for its own sake independently of whatever uses it serves.

What is compelling about a human-centred ethic pushes us toward an animal-centred ethic, possibly further. (This argument is developed by Lori Gruen in Article 30, ANIMALS.) Consistency and the avoidance of arbitrary moral distinctions fuel

the shift from a human-centred ethic to an animal-centred ethic. Also, in thinking about non-humans we might notice new reasons for moral considerability: for example, non-humans might have aesthetic properties such as beauty, which we might think make them morally considerable. This, too, is a case where they are morally considerable not because they have interests but because they possess some property which gives them intrinsic value.

Do the reasons advanced in support of animal-centred ethics also support life-centred ethics? If plants (and ecosystems or the biosphere) can be said to have interests, such as an interest in continued existence, then perhaps they do. The concept of *interest* is often explained in terms of a thing having a good of its own which can be harmed or promoted. Some claim that plants have a good of their own; for example, that the good of a tree is promoted by sufficient nutrients for its continued flourishing and harmed when it is deprived of nutrients. A plant's good is determined by the kind of thing it is, by the type of biological organization it exemplifies, by what it is for it to be a flourishing member of its kind. Plants have a good in this sense but this is obviously not enough to ground the claim that they have interests in any morally relevant sense. Plants do not have a point of view from which they experience the world. It doesn't matter to the tree that it withers and dies from want of water; it would matter to a kangaroo. While plants have natural goals, they have no attitude to those goals and progress towards them is not something which they experience. Similar points can be made about the biosphere and about ecosystems. It is this difference which is thought by some to stop the drift, by providing a non-arbitrary cut-off, from an animal-centred to a life-centred ethic.

Even if it is denied that plants have interests, however, it does not follow that they are not morally considerable. Recall that there were reasons suggested, which did not have to do with interests, in virtue of which humans and non-humans are morally considerable. These concerned the property of being a complex living thing and the property of being beautiful. Plants can possess these properties and if animals are morally considerable in virtue of possessing them, then so too are plants. The key to defending thus a life-centred ethic is to establish that the properties appealed to are intrinsically valuable.

Is there anything that might be said in defence of a life-centred ethic which pushes us toward an everything ethic? The property of being a complex living thing cannot be exemplified by rocks etc. but a related property, namely that of being a complex system, can be exemplified by collections of non-living things exhibiting certain relationships with one another. If it is organizational complexity *per se* that makes something morally considerable, then some non-living things will be morally considerable; for example, the bodies which make up the solar system, patterns of weathering on a cliff and a snowflake. The relevance of this suggestion to the Kakadu case depends, among other things, on whether ecosystems count as living things. If they do not then they are non-living things which exhibit complexity and which, given the suggestion, are morally considerable. The fact that they are morally considerable would provide an ethical reason for opposing mining. Or again, we might judge that one reason we think

that living things are morally considerable is because they exemplify beauty. In some cases beauty might be exemplified by a thing's more general, external features, as in the case of tigers, whales, orchids and proteas. In addition, beauty might be exemplified in the more specific detail of a thing's biological functioning. Now some non-living things such as boulders, dunes, lifeless moons and icebergs can be beautiful, so, if exemplification of beauty is a basis for attributing moral considerability to living things, then at least some non-living things are morally considerable. The claim that exemplifying beauty is a basis for moral considerability is contentious; however, it is strongly supported by some, for example Rolston, 1988. Those who oppose it typically urge that it is the appreciation of beauty rather than beauty itself which is morally significant.

So, one way in which the move from one ethic to the next is accomplished is by finding a determinant of moral considerability in that ethic and showing that a rigorous application of it leads us to the next kind of ethic. Another way is by showing that there are new morally relevant features which the more restrictive ethics unjustifiably ignore. One such feature might be the property of being a natural object; that is, an object which is not the product of human technology and culture. Rocks are natural objects and so on this view it would be wrong, although perhaps not all things considered wrong, to destroy them. There are other candidate properties: for example, the property of exhibiting diversity of parts, the property of functional integration of parts, the property of exhibiting harmony and the property of being a self-regulating system. This last group of properties, if deemed determinants of moral considerability, move us in the direction of ecological holism or in the direction of a mixed ethic. This is because they are properties quintessentially exemplified by ecosystems and the biosphere. If we accept that they are determinants of moral considerability, then we are provided with a reason, in addition to any we might derive from the other ethics we have considered, for resisting policies which would lead to disruption of ecosystems.

How do we decide whether candidate determinants of moral considerability are in fact such? Consider naturalness and exhibiting diversity of parts. Imagine that a certain mine requires the destruction of a group of trees on a rocky outcrop and of the outcrop itself. Environmentalists protest that this involves an uncompensated loss of value. The mining company promises to reconstruct the outcrop from synthetic parts and to replace the trees with plastic models. This bit of artificial environment will be indistinguishable, except by laboratory analysis, from what was originally there. It will be exactly as appealing to look at, no animals will be harmed as a consequence and no ecosystem will be disrupted. Neither the human-centred ethic nor the animal-centred ethic provides space for an environmentalist rejoinder. The life-centred ethic does to the extent that it permits a complaint about the killing of living trees. However, this does not seem to some to be the only thing morally amiss with the mining company's proposal. Isn't it also morally suspect because it replaces the natural with the artificial? Imagine a modified case in which only a rock outcrop, devoid of life, is removed and later replaced with synthetic rock. Not even the life-centred ethic allows for a complaint about the morality of this. Some people think that even in the modified

case the mining company does something to which a moral minus attaches. If this thought is persistent it provides support for a variant of an everything ethic which includes within its scope all natural items. (See Elliot, in VanDeVeer and Pierce, 1986, 142–50.) It is difficult to be entirely sure about the source of the belief, if we have it, that naturalness is a determinant of moral considerability. It is possible that we think that there is something dubious about the artificial outcrop because we cannot distance ourselves from the thought that it will be detectably different or from the belief that it will harm animal interests or that it will result in ecosystemic disruption. If these are the sources of our belief, then we have no basis for the view that naturalness is a determinant of moral considerability. There is another possibility to which we should be alert. Naturalness might be a conditional determinant: that is, it might require the presence of some other property, for instance complexity. So, it isn't natural items which are morally considerable but things which are both natural and complex.

Consider the property of having a diversity of parts. Is this a determinant of moral considerability? Here we might compare an area which is covered with rainforest with an area which has been cleared of rainforest and is under cultivation. Which is more valuable in itself? Again we must distance ourselves from certain thoughts; for example, the thought that clearing rainforests is contrary to long-term human interests, the thought that wild animals would have suffered during the clearing or the thought that aboriginal peoples were displaced. Having attempted this, many would say that the rainforest is of more value. Imagine, then, that only one of these areas could be saved from massive devastation. Many would say that, considering them just in themselves, the rainforest should be saved. Moreover, one reason that will be given is that the rainforest exhibits more diversity; it is constituted in a more complex, richer fashion. There are other reasons that might also be given; for example, that there are aesthetic properties possessed by the rainforest but not possessed by the cultivated area. Our preparedness, by the way, to attribute aesthetic properties, such as beauty, to the rainforest, may well depend on whether we have an understanding of it as an ecological system: knowing how the parts work in concert to maintain the whole might assist us in seeing it as a thing of beauty. Counting these kinds of reasons as reasons for avoiding environmental despoliation provides the basis for an environmental ethic which reaches beyond either a human or animal-centred one and possibly beyond a life-centred one as well.

Even if we accept, for example, that the ecosystems of Kakadu are morally considerable, how do we weigh this against human (or other) interests? A first step is to ask whether there are alternative ways of satisfying human interests. Often there are. Moreover, the modification of ecosystems is often contrary to long-term human interests. Sometimes there will be cases of genuine conflict where the different moral considerations pull in different directions. Here we must carefully enumerate the relevant moral considerations, ask ourselves how important they are and then make an all-things-considered judgement. There is no decisive calculus available to assist us in these judgements. It is not correct to say that humans should always come first nor is it correct to say that preserving

an ecosystem is always more important than protecting any set of human interests. Nevertheless there will be cases, such as Kakadu, where the morally appropriate policy is clear enough.

References

Attfield, R.: *The Ethics of Environmental Concern* (Oxford: Blackwell, 1983).

Baxter, W.F.: *People or Penguins: the Case for Optimal Pollution* (New York: Columbia University Press, 1974).

Callicott, J.B.: 'Elements of an environmental ethic: moral considerability and the biotic community', *Environmental Ethics*, 1 (1979), 71–81.

Goodpaster, K.: 'On being morally considerable', *Journal of Philosophy*, 75 (1978), 308–25.

Naess, A.: 'Self-realisation in mixed communities of humans, bears, sheep and wolves', *Inquiry*, 22 (1979), 231–42.

Norton, B.: *Why Preserve Natural Variety?* (Princeton: Princeton University Press, 1988).

Rolston III, H.: *Environmental Ethics: Duties to and Values in the Natural World* (Philadelphia: Temple University Press, 1988).

Taylor, P.: *Respect for Nature* (Princeton: Princeton University Press, 1986).

VanDeVeer, D. and Pierce, C., eds.: *People, Penguins and Plastic Trees: Basic Issues in Environmental Ethics* (Belmont, Cal.: Wadsworth, 1986).

Further reading

Elliot, R. and Arran, G., eds.: *Environmental Philosophy: A Collection of Readings* (St Lucia: University of Queensland Press, 1983).

Mannison, D., McRobbie, M. and Routley, R. eds.: *Environmental Philosophy* (Canberra: Research School of Social Sciences, Australian National University, 1980).

Partridge, E., ed.: *Obligations to Future Generations* (Buffalo: Prometheus, 1981).

Regan, T., ed.: *Earthbound: New Introductory Essays in Environmental Ethics* (New York: Random House, 1984).

Sylvan, R.: *A Critique of Deep Ecology* (Canberra: Research School of Social Sciences, Australian National University, 1985).

Blackwell Companions to Philosophy

A Companion to Ethics

Edited by

PETER SINGER