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My title can be taken in at least two ways: as 'the good of trees' as opposed to 'the harm of trees' and as 'the good of trees' in the sense of 'the value of trees'. It might also be taken in the sense of 'the use of trees', particularly by those who hold that to speak strictly trees have no good of their own, and are good only for satisfying human interests; this view, however, I consider and reject in the course of Section I after a scrutiny of some writings of Professors Hare and Feinberg, who both seem to hold it. But even if trees have needs and a good of their own, they may still have no value of their own and may still be due no consideration in their own right: in Section II, I examine various proposed moral grounds for preserving trees without finding in them any basis for valuing trees beyond human and animal welfare. The resulting paradox, that trees have interests but no value of their own, is explored in Section III, in which I supply an argument and a thought-experiment to show that trees can after all be of intrinsic value, even though we seldom need to take account of it in practice.

This essay is not in any way intended to derogate from arguments in support of belief in the rights of animals. Rather I hope it may contribute to the philosophy of intrinsic value and to the philosophy of ecology, and also throw light on the conceptual links between the notions of 'purpose' and 'interest', between 'capacities' and 'flourishing', between 'diversity' and 'good' and between 'interests', 'value' and 'rights'. My beliefs about the feelings of trees are unalarmingly traditional: indeed trees are discussed not for the sake of some Arboreal Liberation Campaign, but because they constitute an intriguing test case of several theories in meta-ethics and normative ethics and because our attitudes to them are of considerable intrinsic interest.

I. Harm and the Needs of Trees

There is a view held widely among philosophers that, if we speak strictly, the needs of trees and other plants depend wholly on the interests of humans, that plants can only be harmed when actual or possible human desires are frustrated, and that their harm consists precisely in this frustration. This view has been held not only by contemporary writers such as R.M. Hare¹ and Joel Feinberg;² there are some traces of it in the writings of Aquinas,³ who represents as instruments creatures which, unlike rational agents, do not control their actions, instruments intended solely for the use of agents possessed of intellect: and a similar belief seems to have been held by the ancient Stoics.⁴ I shall try to show this view to be a confused one, about which we need to get straight not only for the sake of trees but also so as to become clearer about harm and needs in general. (Some followers of Aquinas and of Kant hold a similar and in my opinion confused view about animals, but this view is contested by Feinberg, who argues in the same paper that some animals have interests and can have rights. While I agree with these conclusions of Feinberg, my own argument about the good of trees can be carried over so as to supplement his account of the interests of animals: for if the good of trees is partially or wholly independent of human interests, there can be little doubt that the same holds good of animals *a fortiori*.)

Hare expresses the basis of his position as follows. "To speak very crudely and inexactly, to say that some act would harm somebody is to say that it would prevent some interest of his being satisfied; and this, in turn, is to say that it would, or might in possible circumstances, prevent some desire of his being realised." This is crude and inexact because 'might' lets in too much: nevertheless the conceptual link between 'harm' and 'interest' is left unqualified, while the link between 'harm' and 'desire' is presented thus: "I propose to assume for the sake of argument that there is some conceptual link between harm and frustration of prescriptions which are, will or would be assented to."

This dubious assumption leads Hare into a digression on its implications. If the foregoing is granted, Hare remarks, "only creatures which can assent to prescriptions can be harmed in the strict sense. This runs counter to our ordinary way of speaking." Indeed it does, as it yields the conclusions not only that plants and animals cannot be harmed, but also that human embryos and infants cannot be harmed either. But Hare comes to the rescue, at least of plants and animals, by endorsing two analogical extensions of the notion of harm, "once established" for creatures which *can* assent to prescriptions. First, useful animals like horses and useful plants like apple trees can, like cars, be harmed when something is done to them which prevents their *users* from realising their

prescriptions. Second, even when there is no question of a user, "we can speak analogically of the creature wanting things, and, as in the case of people, treat its goal-directed behaviour as evidence of this (provided that we also pay attention to the dangers in the analogy)."

Talk of such desires is a "pardonable artificiality", but only if we extend the notion of wanting in this way can we reveal the origins of expressions like 'good roots': "the apple tree's good roots, if they are not good for helping it to produce the sort of apples that *I* want, must be good for helping it to grow into the kind of apple trees that *it* wants to be – i.e. to achieve the *telos* or end of apple trees by putting on as perfectly as possible their *eidos* or form. If we had not inherited a great deal of this teleological language, we should not speak of good roots in the case of trees not serving a human purpose."

In other words, harm always turns on the frustration of desires and good on their realisation: so, where we talk of good and harm which are unaccompanied by desires, we must be pretending that desires really *are* present; that desires, so to speak, grow on trees. Our usage, though inherited, must be derivative, and only because of this is it pardonable: if we were strict and consistent non-animists we should not speak at all of the good or harm of useless plants; and what is unpardonable is to suppose that creatures lacking wants have a good of their own which has nothing to do with us.

It may seem unfair to put such emphasis on what Hare himself declares to be a digression; but his whole prescriptivist position over harm turns on it. For, as he himself says, these conclusions about animals and plants follow from his analysis of 'harm', and so, by *modus tollens*, their falsity would by the same token imply the falsity of his prescriptivism. Hare has to maintain that our talk about harm to plants and animals is derivative, analogical and barely pardonable, lest we place it at the centre of a naturalist theory on which the nature of harm depends on facts and necessary truths and not on prescriptions. Although I shall not defend such a theory here, the reader who cannot agree with Hare over plants will no doubt draw his or her own conclusions.

At all events Hare has to apply his theories to talk of the good of useless or userless trees. This being so, it is difficult to see how he can cope with much of the talk about trees to which Feinberg draws attention. Thus not only can trees grow, blossom and decay: they can thrive and wither, be endangered by fire and be protected from commercial pillage. Now what can thrive, reach maturity, be endangered and be protected itself, I contend, has a good. How else could we know that it was thriving? Hare might claim that works of art could also be endangered and protected because of their beauty, which humans stand to enjoy, and might go on to claim that trees can only be endangered and protected in this particular

sense: if so, he should hold that trees inaccessible to humans and the beauty of which humans do not stand to enjoy cannot be endangered. More plausibly he would fall back on his derivative notion of 'harm', and grant that trees can be harmed in a sense beyond that in which statues can. They can be harmed because the realisation of their quasi-aspirations can be imperilled.

But this is to suppose that people who talk of the thriving or endangering of forest trees must ground their talk in what most of them consider a childish and unsubstantiated belief – that trees have feelings and purposes, or are indwelt by forms or spirits with conative propensities: or, at best, it is to suppose that they would be willing to acknowledge their talk to be metaphorical, or poetic, or not capable of being taken seriously. Rather than such heroic and implausible suppositions, it would surely be preferable to grant that the good and harm of uncultivated species depend not on any prescriptions, desires, aspirations or wants, but on the capacities of their kind: that it is often open to us to harm them, but not to decide by prescriptions what shall count as their thriving, their decay or their degeneration. Talk of a tree's *eidos* or even of the *telos* it attains at its maturity may well have a place, but the place it has cannot turn on the tree's purposes, or on the belief that it has such.

Hare's remarks about the good of trees do seem to work better for the trees of the orchard, the garden and the plantation: such trees have been selectively bred so that their own fruition corresponds with human purposes. It may still not be the human purposes which make their fruitfulness or their shapeliness elements in their good: this will depend on which general theory of good and harm deserves acceptance. Nevertheless such trees can perhaps be harmed somewhat as Hare's first extension of the notion of harm suggests: their users' purposes can be frustrated if their inbred function is disrupted, somewhat as a car's inbuilt purpose can be nullified by wear and tear. Needless to say, they have a nature of their own in a way that cars do not: yet there is perhaps some analogy. It is rather over the trees, plants and animals of the wilderness that Hare's theory manifestly breaks down: but if these creatures have a good of their own, it is at least plausible that the same applies to domesticated and cultivated species too.

Feinberg, however, doubts whether trees *do* have a good of their own, or that they have needs beyond our purposes and the norms which as a result we supply for them. What impresses him is that no-one (outside Samuel Butler's *Erewhon*) speaks of plants as having rights. He grants that "plants, after all, are not 'mere things'; they are vital objects with inherited propensities determining their natural growth. Moreover we do say that certain conditions are 'good' or 'bad' for plants, thereby suggesting that plants, unlike rocks, are capable of having 'good'." But this talk is

misleading: paint can be believed bad for the walls of a house in the absence of a belief that the walls have "a good or welfare of their own".

Feinberg's basic point is that trees do not have wants or goals, and hence cannot know satisfaction or frustration, pleasure or pain. As they cannot suffer, we cannot be cruel to them: and as they lack desire and cognition, they have no interests, and hence cannot be preserved for their own sakes. Rather when redwood groves are preserved it is for the sake of humans including generations unborn.

I grant Feinberg his premise, that plants lack beliefs and desires, and also, in a strict sense of the term 'cruel', that we cannot be cruel to plants. Certainly we can show greater and lesser tenderness in their treatment: different forms of verge-cutting and hedge-cutting, for example, have very different effects on their survival and distribution, while overdoses of fertilisers and pesticides can cause them to wither prematurely. Nevertheless, although they can suffer disease and truncation, they cannot suffer agony or anguish, as perhaps a number of simpler animal species cannot either: and where it is impossible consciously to undergo either pain or the frustration of natural inclinations, cruelty is impossible too (except on the part of those who believe otherwise).

What I do not see, however, is that "desires or wants are the materials interests are made of" and hence that "mindless creatures have no interests of their own". In an earlier passage,⁸ Feinberg holds that the explanation why mere things, such as the Taj Mahal or a beautiful natural wilderness, have no good of their own "consists in the fact that mere things have no conative life: no conscious wishes, desires and hopes; or urges and impulses; or unconscious drives, aims and goals; or latent tendencies, direction of growth and natural fulfillments (*sic*). Interests must be compounded somehow out of conations; hence mere things have no interests". And, if so, they have no value in their own right.

Now I have some doubt over classifying latent tendencies as conations: Feinberg's remarks about conations seem out of keeping with what they are intended to summarise. But of the two positions which might be attributed to him here, the fuller statement is preferable: latent tendencies, direction of growth and natural fulfilment do jointly seem, as Feinberg himself apparently suggests, sufficient conditions of having interests. This is not to endow machines or cities (if regarded as material objects) with interests, as they lack *natural* fulfilment even when built according to a plan; nor are these conditions satisfied by things lacking inherited capacities, such as forests, swamps or even species (as opposed to their members), though the case of species will be considered again later. It does, however, imply, contrary to Feinberg's subsequent conclusions, that all individual animals and plants have interests. For all have latent tendencies at some time or other, all have a direction of growth, and all can flourish.

after their natural kind. There is no need to hold that trees have unconscious goals to reach the conclusion that trees have interests: indeed where nothing counts as a conscious goal it is hard to see how anything counts as an unconscious one either. The growth and thriving of trees does not need to be regarded as a kind of wanting, nor trees as possible objects of sympathy, for us to recognise that they too have a good of their own.

Feinberg, however, rejects this construction of our ordinary beliefs about plants. He grants that we talk of their needs, but holds that things only have needs of their own, as distinct from needs for the fulfilment of the goals of some extrinsic agent, when they have a good or interests of their own. Our talk of the needs of trees, however, he holds to resemble that of the needs of cars for oil and petrol: without sunshine and water they "cannot grow and survive; but unless the growth and survival of trees are matters of human concern, affecting human interests, practical or aesthetic, the needs of trees alone will not be the basis of any claim of what is 'due' them in their own right. Plants may need things in order to discharge their functions, but their functions are assigned by human interests, not their own."

Feinberg's readers no doubt experience relief to hear that trees make no claims and have no rights: but this sentiment is really beside the point. Certainly Feinberg has by this stage advanced a theory relating interests and rights: but if both plants have no rights and the theory suggests a close connection between having rights and having interests, then that could as easily be a reason for rejecting or modifying the theory as for concluding that plants have no interests. At all events what is at stake is interests, not rights, and the real argument here has nothing to do with rights but amounts to the claim that as trees only have needs where human interests require the growth or survival that the needs are necessary for, they have no needs, and hence no good, of their own.

This argument might seem more difficult to controvert than Hare's prescriptivist theory, since any need of a tree which I represent as having no benefit for humans is likely to be regarded as an object of at least my interest: and, even if the play on the meaning of 'interest' is remarked, it will be held that objects of my investigative curiosity are also objects of my interests as a source of aesthetic enjoyment. Nevertheless the question which must be faced is whether trees would have needs if there *were* no humans, and indeed whether they had needs before humans first made their appearance. Once this question is put, the answer is obvious. Indeed Feinberg seems quite mistaken to hold that trees have no needs of their own. Trees had needs before people existed, and cannot be supposed to have lost them.

Feinberg does, however, present a reply to the view that talk of the thriving, flourishing, withering and languishing of trees shows them to

have a good or interests of their own. His reply is of an etymological kind, slightly reminiscent of that of Hare over 'harm'. The original meaning of 'flourish' was 'blossom', but it was then extended to 'grow luxuriantly, increase and enlarge' and to 'thrive'. Then it was further extended to persons: about this sense Feinberg says that "When a person flourishes, something happens to his interests analogous to what happens to a plant when it flowers, grows and spreads". (Is not more involved in a person flourishing than the progress of their 'interests'?) Finally flourishing is represented as a conscious act of disposition in the claim that "To flourish is to glory in the advancement of one's interests, in short, to be happy", an account which seems not only to degrade happiness, but also to require attitudes not required by flourishing itself.

This etymological account prepares the way for the remark "Nothing is gained by twisting the botanical metaphor back from humans to plants". Feinberg does not expect the senses of 'flourish' in the two cases to be telescoped, but he does fear that the re-application of the metaphor to its source will make people believe that plants have interests "in the teeth of our actual beliefs". In Feinberg's eyes, of course, the sense of flourishing tied to interests is also tied to consciousness: and he regards this sense as merely metaphorical, as if there were no common element in the flourishing of people, animals and trees, such as the fulfilment or development of natural propensities. I do not, of course, claim that 'flourishing' is used univocally of different natural kinds: but as there does seem to be a common element, I do not see the justification for holding that it is not in the *interest* of plants to flourish. Truistically they are unaware of their interests: but even creatures with cognition are often unaware of theirs, whether they are flourishing or not.

Nevertheless Feinberg tries to defend his claims by contending that "Some of our talk about flourishing plants reveals quite clearly that the interests that thrive when plants flourish are human, not 'plant interests'." Sometimes, admittedly, there is a co-incidence between our interests and a plant's natural propensities; but there are exceptions, as when we frustrate the natural propensities of a plant by removing dead flowers before the seeds have formed to encourage new flowers, and still talk of its "flourishing"; and what we then mean "is that our interest in the plant, not its own, is thriving". Now plants bred to have large, colourful or exotic flowers do, when they flower, satisfy our interests; even though flowering is only a part of their flourishing as even a cultivated plant. It is probably the overlap between their nature and our purposes which allows us to call this condition "flourishing": such talk does not however show that whether or not plants flourish turns on our interests rather than theirs. If it were our purpose to hang plastic lanterns on them, we could not claim that their bedecked condition was *ipso facto* one of flourishing: flourishing

states have to be states in keeping with a plant's nature (which may, of course, be a cultivated nature).

The real exception, however, to the co-incidence of plants' propensities and human interests is not the one which Feinberg believes he finds. What I have in mind is the common and garden experience of unwanted flourishing. Not only do weeds flourish contrary to our interests: so do runaway hedges, trees the roots of which block drains and the shade of which annoys the neighbours, and luxuriant undergrowth which blocks our paths and by-ways: to say nothing of the stings and scratches of plants whose propensities include protection against predators. Often we have good reason to cut back such growth: yet, even as we curse it, we cannot usually deny that the plants are flourishing after their kind – and that in no ironical or animistic sense of 'flourishing'. But on Feinberg's theory we cannot cut back plants which in any proper sense flourish contrary to our interests, because they are conceptually impossible. Not so easily is paradise regained.

Underlying my criticisms of Hare and Feinberg there is, of course, the Aristotelian principle that the good life for a living organism turns on the fulfilment of its nature. This principle has recently been defended and applied to animals by Stephen Clark,⁶ who concludes that it harms creatures to "deprive them, whether they were man or beast, of the proper fulfilment of their genetically programmed potentialities". Clark adds, by way of a *reductio* of his main opponents, the sound point that, if creatures' good is "defined by extrinsic teleology, by their use to man" then it must be held "that it is to a pig's benefit to be killed and eaten", and that it cannot flourish otherwise. But this is absurd. We should not deprive ourselves of a vocabulary in which to talk of creatures' good, or we shall not even be in a position to discuss whether or not we may disregard it.

The same principle can be restated as follows. Let the 'essential' capacities of an *x* be capacities in the absence of which from most members of a species that species would not be the species of *x*'s, and let '*x*' range over terms for living organisms. Then the flourishing of an *x* entails the development in it of the essential capacities of *x*'s. I have elsewhere attempted to defend the application of this principle to humans:⁷ but, as Clark says of Aristotle's similar argument, the objections which might be invoked against it over humans "do not begin to touch its application in the case of beasts". To this I should add, "Or to plants", besides, of course, endorsing his view that the objections to its application to humans are mistaken. But this agreement of Clark and myself about humans is not here at stake, except insofar as the general principle is. This principle is also a principle governing the nature of good and harm, and suggests the kind of theory of harm which I should adopt as against that of Hare. It also implies that trees can be harmed in their own right, and have a "sake" for

which acts can be performed, and interests and needs of their own.

What it does not imply, however, is that trees are of value in their own right, have rights, or ought to be shown consideration. To issues like these I now turn, by considering the grounds for preserving trees. Whether the fact that trees have a good of their own is a reason for caring for them, at this stage, an unanswered question.

II. Grounds for Preserving Trees

Many of the grounds for preserving trees are also, of course, grounds for preserving wild animals and areas of wilderness as well. Of these grounds almost certainly the most important group is associated with the interests of humans. Thus it is important to preserve trees, other wild creatures and their habitats for reasons of scientific research, to retain as wide a gene pool as possible for the sake of medicine and agriculture, and for recreation, retreat and the enjoyment of natural beauty. These grounds, and the extent of their application, are well discussed by John Passmore in *Man's Responsibility for Nature*,⁸ and do not need to be discussed in detail here.

Passmore correctly remarks that such considerations will often be overridden by other human interests, and sets out upon a search for other grounds for preservation. This same difficulty has been noticed by Laurence H. Tribe, who observes that, if human interests only are taken into account, the replacement of natural trees by plastic ones would often be justified.⁹ His solution is to suggest that forests and other natural objects of beauty such as cliffs might be recognised as having rights which could not easily be overridden. A difficulty here, however, would be the justification of such legal or moral rights, especially where the balance of advantage would favour their disregard. As Robert Nozick¹⁰ urges in the related matter of the treatment of animals, to justify an absolute prohibition on the infliction of pain and suffering we should need a theory of "side constraints" on which the interests of the animal concerned could not be overridden on any ground: a theory of overriding moral rights. But such a theory, requiring as it does the sacrifice on occasion of basic human needs and even of human life in the interest of non-human animals, is so counter-intuitive that it is yet less likely to command acceptance than that of Tribe. Nevertheless our inclination to accept that constraints of some kind are required in the dealings of humans with animals suggests one lesson to be learned about the preservation of wildlife: for the interests of animals, once allowed to count for something, do constitute an additional ground for preserving the plants and the habitats on which they depend; and these interests will occasionally tilt the balance of advantage in favour of preservation.

Another writer who attempts to supplement the arguments from human interests in the cause of preservation with their acknowledged shortcomings is Mark Sagoff.¹¹ His view of the justification for preserving wildlife and wilderness is that they symbolically represent to us values which cannot be satisfactorily expressed without them, and that the loss of significant scenes and places diminishes ourselves. This view does perhaps explain a great part of our interest in nature, and also supplies an extra justification for preserving some tracts of it intact: but it is, of course, another justification drawn from human interests, and, like the counterpart justifications of science, recreation and retreat, is likely to be outweighed on occasion by people's interest in e.g. food, clothing and shelter.

In order further to assess grounds for the preservation of wildlife and wilderness which go beyond human interests we can conveniently return to Passmore's examination of our moral traditions in this same connection. The themes which he remarks concern the wrongness of causing unnecessary suffering to animals, of extirpating species and diversity, and of vandalism and wanton destruction, while he also touches on the tradition which commends reverence for life as such (and finds it wanting). As I have already acknowledged the moral relevance of animal interests to the preservation of trees, I shall concentrate on the other themes, to see if they require the interests of trees to figure among the grounds of morality.

One of the possible grounds for preserving both individual plants and species of plants is the desirability of diversity. The long history down from Plato's *Timaeus* of the principle that the more diverse a world is the better has been well traced by Lovejoy;¹² and in ecological connections it is an attractive principle, because of the important role played by even the humblest member of an ecosystem. But it is less easy to agree that diversity is desirable for its own sake, and that it is because of this that we are required where possible to preserve the manifold species of our planet. It is agreed on most sides that the enjoyment of sentient creatures is desirable for its own sake; and it is an important truth that delight and pleasure are usually fostered by the experience of diversities of sounds, colours, shapes and species, as well as by diversities of social traditions and individual personalities. So it may be that what makes diversity desirable is its enjoyment, together perhaps with the range of desirable activities which it facilitates.

To some, the above theory of the desirability of diversity may seem anthropocentric: in fact, as it takes into account the experiences and activities of non-human species, this impression would be illusory. Nevertheless it makes the diversity of plant species a matter of merely derivative value, at least unless the theory is supplemented in some way: and even if it is supplemented by pointing out the importance of diversity

in ecosystems for their stability, the value of diversity remains derivative, depending on the interests of those creatures such as ourselves which benefit from ecological stability.

As this may all sound unsatisfactory, it should be tested. What we have to imagine is a world in which there are no conscious experiences and no activities (at least on the part of creatures); of this imaginary world we must then ask whether it would be any the worse if it became more uniform, e.g. by coming to lack objects of one particular form or composition. Such a thought-experiment may be barely possible until we imagine the agency which might carry out the deprivation. Yet this is the sort of question which it is appropriate to ask, rather than one about, say, whether the loss of one species of plant would impoverish the world. For there may be something intrinsically desirable about plant species not because of their diversity but because they are species of living organisms: and what is at stake is whether diversity is *intrinsically* desirable, whatever its domain.

The agency which we seem to need to imagine can be introduced by a variation on Richard Routley's "last man" example.¹³ The last man knows, in my version of this example, that all life on this planet is about to be terminated by multilateral nuclear warfare. He is, indeed, himself the last surviving sentient organism, and knows that he too will die within a few minutes; but he also happens himself to be possessed of a workable missile capable of destroying all the planet's remaining resources of diamond. The gesture of doing so would certainly be futile, but for himself it has a symbolical significance: and the question with which he is faced, and which we can ask about his projected act, is whether it would do any harm or destroy anything of intrinsic value. If we set aside the possibility that the planet might some day be repopulated with sentient organisms, which would, it seems to me, make a difference, the answer is surely that there is nothing wrong with this act, morally indifferent as I should certainly recognise it to be. The world would not through his act be any the poorer. (Maybe the act deprives God and the company of heaven of the experience of diversity, and is on that ground objectionable; but if so the objection arises because of the loss of valuable experiences rather than because of the value of diversity itself.)

There seems, then, no reason for preferring a slightly more diverse inanimate world to a slightly less diverse one, unless its constituents are objects of someone's or something's experience. In other words, diversity is not intrinsically desirable. If then there is something intrinsically undesirable in losses in the variety of living species, it will turn on their life and not on the loss to diversity as such.

It might here be suggested that it is rather the wrongness of vandalism which accounts for our objections to the elimination of species: indeed that

his act was a piece of vandalism might be thought to show after all the wrongness of what was done by the "last man" of the recent example. Now certainly, as Passmore point out,¹⁴ acts of destruction need justification; and certainly dispositions or policies involving the destruction of items of value for its own sake are strongly to be condemned. But even when policies and motives are bad (and this is not clearly true of the last man) the acts which stem from them are not always or necessarily wrong; and besides, vandalism is bad because of the harm habitually or usually done by vandals: so, if we are to hold that the elimination of a species is vandalism (which, I suspect, it often is) we need to show it to do harm or to be undesirable on some such more basic ground. The readiness of people to recognise vandalism may often curtail the need for further argument, as Pete Gunter reports about the tactics of some lumber companies opposed to the declaration of a National Park:¹⁵ yet the recognition of vandalism entails the recognition of the unnecessary perpetration of evils, and it is these evils which constitute the basic objection to it. So we must continue to search for what of value is lost to the world when plants or their species are destroyed, to see whether such losses are all ultimately losses to sentient creatures or not.

The question now becomes whether the continuation of each living species is valuable in itself. Passmore tells us that according to Aquinas this is the attitude of God, who "in the case of every other species except man ... cares nothing for the benefit of the individual but does watch over the species as a whole".¹⁶ A partially similar view is taken by Feinberg about animal species: "the preservation of a whole species may quite properly seem to be a morally more important matter than the preservation of an individual animal".¹⁷ But Feinberg grounds this duty in our duty to future humans, rather than to the species concerned as such. And this is one of the grounds for preservation, or rather one class of grounds, taken account of already.

One reason for concern for species is concern for their current members: and when Stephen Clark observes that "Our distress at the destruction of a living tree is not merely at our loss of pleasure in its beauty", he expresses a sentiment which many would echo. Yet concern for species is not the same as concern for the present individual members: it involves the belief that it is desirable that *there be* elms, etc., and if it is to be an independent ground, that it is intrinsically desirable. Once a species dies out, there will be no more individual members: so either if each life of that kind is valuable in its own right, or if at least it is valuable that there be lives of that kind, the occurrence is a tragedy regardless of the circumstances or consequences.

Now the other tradition discussed by Passmore, that which enjoins reverence for life, has sometimes maintained that each life of any kind is valuable in its own right, and valuable just because it is a life. But, as

Jonathan Glover cogently argues,¹⁸ the belief that "all life is sacred" needs drastic modification even when applied to humans: for some lives cease to be worth living, and some never were so; and, we might add, even if some lives which are not in general worth living still include some worthwhile activities and experiences, nevertheless there are some lives which no longer do, and some which never did. And when we turn to other species we find that a great many organisms lack even the capacity to flourish after their own kind, being genetically or accidentally stunted, or having entered the phase of natural decay.

Thus, even if we agree with Feinberg that (some) animals have (some) rights, we are not obliged to hold that every animal life, let alone every vegetable life, is intrinsically valuable. Indeed there is good reason not to hold this at all. Whatever our objections to the destruction of individual trees, it is not the mere fact of their being alive which can justify our reaction: for lives can lack any features which make them worthwhile to anyone or anything, including the creature the life of which is in question.

If so, the intrinsic undesirability of the elimination of a living species cannot turn on the intrinsic value of each and every species member. It could still, in theory, turn on the intrinsic value of there being lives of that kind: but it is hard to see why we should accept this belief, granted that there is nothing intrinsically valuable about diversity in itself. Certainly most species are vital for the continued existence of many others, and certainly we enjoy their variety and might reasonably feel diminished at the extinction of any single one. But this is to acknowledge the importance of each species to other species, not their intrinsic value. It could then be that the tragedy involved in the termination of a species depends on the diminution of the worthwhile activities of members of other species or on the baneful effects it has on such individuals; and these said individuals, to be capable of worthwhile activities, must at least be purposive in a way in which vegetables are not.

The modern understanding of the interdependence of species supplies additional reasons why, to avert harm to humans and animals, almost all species of living creatures should be preserved, together with some of their habitats. Nevertheless the survey of the grounds for the preservation of wildlife and wilderness suggests that there are few if any grounds to be found beyond the welfare of humans and animals: for neither does mention of vandalism add to the list of basic grounds, nor is there anything intrinsically amiss in losses to diversity, in the extinction of species or in the curtailment of life rather than worthwhile life.

Moreover what is not intrinsically valuable can hardly be thought to have rights: for what has rights must be valuable in its own right. So apparently trees and plants lack rights, even though they are needed by humans many times over — and even though we should literally starve and suffocate without them.

III. The Value and Rights of Trees

The argument so far brings us to a paradox. Trees have needs and a good of their own, yet they have no intrinsic value and no rights of their own. Trees have interests, yet we have no obligation to protect those interests in themselves. And this is a position uncomfortably close to unreason: for, in other cases, what has interests of its own becomes *ipso facto* of moral concern, whereas in this case we are prepared to disregard a large set of interests and treat them as morally irrelevant.

Someone might at this point attempt to disavow the conclusion of Section I, and hold that e.g. what has no purposes has no interests: but as we there saw, this would be entirely unreasonable. The more tentative conclusions of Section II, however, could more easily be re-examined. Thus it was never established that no tree is of intrinsic value, but only that, as not all lives are worth living, it could well be that the possible objects of moral concern are confined to the class of the agents of worthwhile activities (and potential activities), and thus that the lives of non-purposive organisms are of no moral significance in themselves. But the premise only shows that *some* plants are of no intrinsic value, and that not all life is sacred. It could, then, still be true that a full-grown oak is after all morally as important as the crows and the squirrels which shelter in it.

But trees, it will be said, not only lack activity and self-motion but also beliefs, desires and feelings. Squirrels merit moral consideration because they have capacities in some way like our own: trees do not because the similarities are vanishingly few. Granted that it is the capacities of humans which make them morally significant, this analogical argument must be accepted at least as to what it affirms about animals, and as to the commended priority of animals over plants. Yet are the similarities really negligible? Trees, like humans and squirrels, have capacities for nutrition and growth, for respiration and for self-protection: and it is capacities and propensities such as these which determine their interests. If then their interests are partially similar to interests of acknowledged moral relevance (i.e. our own), can we disregard them totally?

One line of argument which might suggest that plants matter in their own right runs as follows. It is perhaps unimportant that species, regarded abstractly, should continue to have members, and perhaps not all the members matter either. But, regarded concretely as populations, species are often the units which count, and are, at that, units which count a good deal: species such as "Grass" and the "Nitrogen-fixing Bacterium" are, as Clark¹⁹ would have it, "ethically relevant individuals". And Clark is surely correct in claiming that they are "enormously more important to the world at large than any human individual". Members of species, it might be

added, are often interdependent, while it is the species as a whole which maintains itself intact against external pressures and competition. Hence, it might be argued, sometimes whole species deserve consideration in their own right.

We should certainly be wary of rejecting all this on the wrong grounds. Thus Passmore concludes that species lack interests because they lack wants and purposes; but, as we have seen, wants and purposes are not necessary in this connection.²⁰ Indeed it may be that some simple organisms live in colonies which are like individual plants in having latent tendencies, direction of growth and natural fulfilments; and if so these colonies would have interests on the same basis as individual trees. But otherwise the waxing and waning of the populations of species are not, it seems to me, such that we can speak of the fulfilment of natural propensities which they have *as species*; so the interests which they have must simply be the resultants of the interests of their individual members, a reflection which holds good even of species with interdependent members. And this is as far as the argument about species regarded as populations gets us: for talk of the importance of a species *to the world at large* does not begin to show it to be of intrinsic value, rather than to be of consequential value.

Admittedly Clark also adduces the contention of Leopold that ecologically interdependent species owe each other consideration as members of a community. Leopold advocates a "land ethic", incorporating the whole terrestrial biotic community in the reference of the term "land". "All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts ... The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land."²¹ There is here the suggestion that all interdependence entails mutual obligations. But, as Passmore observes,²² this is not so. "In the only sense in which belonging to a community generates ethical obligation, they (sc. bacteria and men) do not belong to the same community." Passmore seems to weaken his point by requiring of members of a community that they recognise mutual obligations, a dubious claim which also begs the question against Leopold. But he is surely right that too little is shared and acknowledged by members of the biotic community for it to constitute the basis of obligations to all even on the part of those members to whom they can without absurdity be ascribed.

Is there even so a way of moving from the interests of humans, agreed to be of moral significance, and of sentient animals, increasingly recognised to matter in some degree, to the interests of non-sentient animals and plants, so that they too are taken into account? The makings of such an argument begin to appear in Jan Narveson's *Morality and Utility*, though I

should emphasise that Narveson himself is concerned solely with people. What Narveson points out is, in effect, that every agent acknowledges that the satisfaction of his interests is intrinsically good. But if so, every agent must also acknowledge that the satisfaction of every other agent's individual interests is intrinsically good too, unless they can justify regarding others differently. Hence the satisfaction of everyone's interests must be of concern to every consistent moral agent.²³

Not all the elements in this argument are of current relevance. Thus I do not need to tarry over what people will or will not acknowledge. The argument, regarded as concerned with the intrinsic value of the satisfaction of individual agents' interests, clearly requires us to justify any refusal to take interests into account. I do not begin to see how an adequate justification could be supplied over sentient animals: and even as to a refusal over trees it is not clear what the grounds of justification would be, though it is clear that grounds are needed.

One ground might be that trees are not sentient, and thus have radically different interests: if so, the reply is that they share with sentient organisms vegetative interests which are regarded as mattering in other cases; the physical well-being of organisms which have interests is not plausibly a matter of complete indifference, even in cases where the organisms cannot suffer pain or frustration. Another ground might be that trees are not agents, because they lack purposes: if so, the reply takes the form of a request why the interests of non-purposive organisms are not as intrinsically important as the similar interests of purposive organisms, or at least why they are not intrinsically important to some degree. If the answer to this request is that only agents can exercise sanctions, it is not of an appropriate character: if it is that only agents consciously experience frustration, it can be replied that in the case of animals the stunting of natural propensities comprises harm even when it is not understood or sensed as such by the animal affected, and if this harm is an evil, so plausibly is the stunting of organisms lacking sentience.

In all this I willingly grant that the differences in potential between different species are of the very greatest importance. Thus the goods and the harms open to people because of their essential capacities vastly exceed those open to most animals, and similarly the blessings and sufferings made possible by capacities for purposiveness do indeed make the interests of non-purposive organisms count for less than those of purposive organisms and hence of agents. But this still does not show that the interests of trees count for nothing: and even if not all lives are worthwhile lives, it still might be that many or even most vegetable lives are worthwhile and of value in themselves. After all, we have still to account for the distress which at least some of us feel at the destruction of a living tree. So the issue of whether trees have an intrinsic value remains at least an open one.

To attempt to test the issue, I revert to a form of Routley's "last man" example closer to his original. So as to discount the value of trees for people and sentient animals, we imagine once again that people and sentient animals are one and all doomed to imminent and inevitable nuclear poisoning, and that this is known to the last surviving human. But this time we imagine him considering the symbolic protest of hewing down with an axe the last tree of its kind, a hitherto healthy elm which has survived the nuclear explosions and which could propagate its kind if left unassaulted. Nothing sentient is ever likely to evolve from its descendants: so the question which he faces, and we can ask about him, is whether there is anything wrong with chopping it down and whether the world would be the poorer for the loss of it. We must suppose further, of course, that he himself will not suffer if he does not cut down the tree; he has enough timber already for firewood and shelter for his own last hours.

This question may seem to raise a problem of method: for it is asked of circumstances about which some would say that we no longer know how to apply our ordinary concepts of value. It is unclear to me how they would claim to know this: I can only invite those who nevertheless make this claim to attend instead to more ordinary cases of the uprooting of healthy trees and our reaction to it. So long, however, as the last man retains his ordinary concepts of value and his capacity to apply them, the question would seem to be both conceptually proper and apposite: and, if so, the problem of method proves illusory.

Most people who face the question would, I believe, conclude that the world would be the poorer for this act of the "last man" and that it would be wrong. He would be unnecessarily destroying a living creature which could have renewed the stock of its own species. (I suspect that a similar reaction would be the typical one to more everyday uprootings, though of course the reasons for such a reaction would often in those cases be mixed ones. I also suspect that the reaction would seldom be different even if the interests of sentient creatures are discounted.) And if, without being swayed by the interests of sentient creatures, we share in these conclusions and reactions, we must also conclude that the interests of trees are of moral significance. Although they rarely come or should come foremost in ethical deliberation, they can and in principle should be considered.

There are, of course, in practice ample grounds for disregarding the interests of trees at most junctures. Human and/or animal interests are almost always at stake, and mere vegetation can be forgotten where those interests would be imperilled. The good of trees might outweigh some of our whims: but it does not outweigh our interests except where our interests depend on it. But this is not to make trees of no ethical relevance in themselves. Very slightly, they have interests mirroring ours: at very many removes they are our living kin. But interests do, it seems, supply reasons

for consideration: and there is always the residual possibility of their interests being of greater significance than any other which are at stake.

Theoretically at least, the same applies to other plants, to non-sentient animals, and to those colonies of organisms which function as individuals: although just as among sentient animals so here too there are diversities in capacities and no doubt diversities in the degree of consideration due. There again, the overall grounds for preservation and careful treatment will be supplemented in respect of value to other organisms by enormously diverse amounts, but never more, I suspect, than in the case of trees.

All the same, my conclusion is not without practical significance. It implies among other things that some degree of respect is due to almost all life, even though the main ground for the preservation of natural kinds remains human interests: and it implies that, where natural trees could be replaced without aesthetic loss or other disadvantage to humans there are still reasons for not doing so. At the more theoretical level it suggests that nothing which has interests is to be viewed wholly instrumentally, and that things which have interests characteristically have some value in their own right. If trees have a good which is not our good, then they also *constitute* a good: if they have their own form of flourishing, they are thereby of value in themselves.

Do trees have rights? Only what is valuable in its own right has rights: but many trees do now seem to be valuable in their own right. Yet trees certainly do not have rights in Nozick's sense of their being "side-constraints" prohibiting various forms of treatment whatever the need or the benefits. At best, their interests have to be weighed with those of people and animals.

Need we, however, reject all forms of conceptual tie between interests and rights? The form of connection propounded by Feinberg is as follows. Creatures have rights if and only if they have interests, consideration is due to them, and it is due to them not for the sake of anything else but for their own sake.²⁴ Interests are necessary since what has rights must be capable of being represented and of being a beneficiary, having a welfare of its own. Feinberg believes, in the light of this condition, that trees lack rights, since he believes them to lack interests: but, as we have seen, he is mistaken. Now no-one would dispute that consideration is often due to trees where this just means that there are grounds for tending or preserving them: what is not usually accepted is that it is due to them for their own sake. If I am right and it is, then, granted Feinberg's conceptual connection of interests and rights, many trees have rights.

Such rights would, however, like all other rights be overridable from time to time: and the grounds for them, the intrinsic value of trees, would be so slender by comparison with the grounds of other rights as to be outweighed most of the time, so much so as to disappear into near

oblivion. Yet if some trees have rights, then we should occasionally bear the fact in mind, or unsound theory will lead to misguidedness in action.

Alternatively someone who agrees that trees have interests and are of ethical relevance but cannot accept that they have rights might wish to reject or amend the conceptual tie delineated by Feinberg, such, perhaps, that only purposive or potentially purposive creatures can have rights. To such an amendment I should not object. Rights are not the sole ground of moral reasoning, and it does seem incongruous to represent the treatment of trees as a matter of justice. In any case all the *grounds* for the ascription of rights in Feinberg's unamended sense to trees would remain, and we could show concern for their needs and interests without believing them to have rights. We could, I think, still talk of obligations to them, since if it is sometimes wrong to destroy them for no reason beyond themselves then it is on those occasions obligatory not to do so,²⁵ and indeed the obligation is due to nothing but the tree.

"And God said, 'Let the earth put forth vegetation, plants yielding seed, and fruit trees bearing fruit in which is their seed, each according to its kind, upon the earth.' And it was so. The earth brought forth vegetation, plants yielding seed according to their own kinds, and trees bearing fruit in which is their seed, each according to its kind. And God saw that it was good."²⁶ Of course, in Genesis 1 *all* creation is good: be that as it may, living creatures in any case, it would seem, characteristically have a value of their own.²⁷

NOTES

1. R.M. Hare, *Essays on the Moral Concepts* (New York: Macmillan, 1972), pp. 98f.
2. Joel Feinberg, "The Rights of Animals and Unborn Generations", in *Philosophy and Environmental Crisis*, ed. William T. Blackstone (Athens: University of Georgia Press, 1974), at pp. 51-55.
3. *Summa Contra Gentiles*, translated by the English Dominican Fathers, Benziger Brothers, 1928, ch. 112, quoted in *Animal Rights and Human Obligations*, ed. Tom Regan and Peter Singer (Englewood Cliffs, NJ: Prentice-Hall, 1976), pp. 56-59.
4. See the discussion of the Stoic Balbus in Cicero's *De Natura Deorum* by John Passmore at p. 14 of *Man's Responsibility for Nature* (London: Duckworth, 1974).
5. Feinberg, op. cit., pp. 49-50.
6. Stephen R.L. Clark, *The Moral Status of Animals* (Oxford: Clarendon Press, 1977), pp. 57-58.
7. Robin Attfield, "On Being Human", *Inquiry* 17(1974):175-92.
8. Passmore, op. cit., pp. 101-110.
9. Laurence H. Tribe, "Ways not to think about plastic trees", *Yale Law Journal* 83(1974):1315-48.
10. Robert Nozick, *Anarchy, State and Utopia* (Oxford: Blackwell, 1974), pp. 28-42.
11. Mark Sagoff, "On preserving the natural environment", *Yale Law Journal* 84(1974):205-67.

12. A.O. Lovejoy, *The Great Chain of Being* (Harvard: Harvard University Press, 1936).
13. Richard Routley, "Is There a Need for a New, an Environmental Ethic?" in *Proceedings of the Fifteenth World Congress of Philosophy* (Varna, 1973), pp. 205-10.
14. Passmore, op. cit., p. 124.
15. Pete A.Y. Gunter, "The Big Thicket", in Blackstone, op. cit., pp. 126-29.
16. Passmore, op. cit., p. 117.
17. Feinberg, op. cit., p. 56.
18. Jonathan Glover, *Causing Death and Saving Lives* (London: Penguin, 1977), ch. 3.
19. Clark, op. cit., p. 171.
20. Passmore, op. cit., pp. 55f.
21. Aldo Leopold, *A Sand County Almanac* (New York: O.U.P., 1949), pp. 203f., quoted by Clark at p. 164.
22. Passmore, op. cit., p. 116.
23. Jan Narveson, *Morality and Utility* (Baltimore: Johns Hopkins Press, 1967), pp. 271-75.
24. Feinberg effectively deals with the objection that right-holders must also be capable of making and of waiving claims on their own at op. cit., 46-49.
25. The claim that it is obligatory not to do what it is wrong to do and the criteria of obligation, wrongness and rightness are discussed more fully in my "Supererogation and Double Standards", *Mind* 89:481-99.
26. *Genesis*, ch. 1, vv. 11f. (Revised Standard Version).
27. I am grateful for comments and criticisms of an earlier draft of this essay from David Attfield, John Benson, Robin Downie, Robert Elliot, Thomas McPherson, Mary Midgley, Heather Milne, Peter Singer and members of the Philosophy Seminar of University College, Cardiff, and for bibliographical assistance from Richard Routley. He and V. Routley arrive by another route at some cognate conclusions in their unpublished paper "Against the Inevitability of Human Chauvinism".