CHAPTER 4

THE ETHICS OF EXTINCTION

INTRODUCTION

The extinction of humanity is now a significant possibility, not least through environmental impacts of human actions. Thus a nuclear winter could descend as the environmental impact of nuclear warfare, and this is just one of several conceivable catastrophes. Another is a pandemic resulting from biological warfare, or from terrorist action, or even from accidental spin-offs of experimentation. Chemical warfare could produce similar effects. Or imaginably, global warming could accelerate irretrievably; or the ozone layer could be lost, and the conditions of human life thus be undermined.[1] Another possibility, however remote, is a collision between our planet and an asteroid, of a kind which may account for the demise of the dinosaurs in the Cretaceous Period.

There is nothing inevitable about any of these threats; the point here, however, is their mere possibility, and the values which reflection on this possibility can disclose. Such threats cannot be entirely disregarded. For example, between stable geological periods the forces which underlie stability can produce sudden geological change, as at the end of ice ages;[2] again, in the right combination, small changes like the manufacture of chlorofluorocarbons (CFCs) can generate vast consequences, in this case imperilling the prospects of all life on Earth.[3] This particular threat may be under control, black markets permitting, but might not have been if CFC impacts on the ozone layer had not been discovered when they were, or if CFC emissions had begun a few decades earlier, before science was capable of studying their effects.[4] Besides, the very survival of humanity to date has happened against the odds; '[h]umans are here today', as Stephen J. Gould says, 'because our particular line never fractured – never once at any of the billion points that could have erased us from history'.[5] This granted, our future as a species is likely to remain a vulnerable one.[6]

While the probability of these various threats remains extremely low, the mere possibility of human extinction serves to remind us of values which we might otherwise ignore. Intuitively most people recognise that to cause or allow the avoidable extinction of humanity and other sentient species would be an evil of almost unsurpassable magnitude, and also that the knowledge that humanity was to be extinguished within the coming decades would make much of current life become futile and meaningless. Reflection suggests that the irretrievable loss of worthwhile life at some stage of the future would be an even worse disaster for humanity than actual extinction.[7] But while this is not seriously in prospect, except in the event of people discovering that extinction itself has somehow become imminent, human extinction itself still remains a serious possibility. However, the intuitions just mentioned about the morally disastrous nature of extinction are not easily explained. In this chapter, different explanations of these intuitions are discussed, together with the implications of discarding them.

PAST AND FUTURE GENERATIONS

The belief that avoidable extinction would be an evil might seem to be based on duties owed to future generations. Yet if those generations never live, apparently they can never be harmed, and thus nothing can be owed to them. Besides, the belief that the extinction of humanity makes much current activity meaningless seems to be based either on such duties to future generations, which apparently could prove empty and thus impossible, or on duties to past generations to ensure that their concerns and projects are continued into the future; but people who are dead apparently cannot be either harmed or benefited, and so these duties seem empty and impossible too.

Maybe these verdicts about duties to past and future generations are too hasty. Consider duties to the past. Remembering the dead, through anniversaries and memorials, is often held to be a responsibility of the living; and John O'Neill has cogently argued that the dead really can be harmed and benefited, depending on whether their projects languish or prosper.[8] A claim of David N. James serves to relate this conclusion to the possibility of human extinction:

> [I]f there is any obligation whatever to honour and respect those whose past activities have given us what we have, that respect would appear to rule out placing at risk the totality of their contribution.[9]

Yet the degree to which the dead could be harmed or dishonoured still appears insufficient to account for our intuitive responses to the possibility of the extinction of humanity. Imagine a situation in which the dead could only be honoured through special effort and at the cost of neglecting people on the brink of starvation, or in need of rescue from rising floods. Our responsibility would clearly lie where the greater difference to human well-being could be made, through intervention on behalf of the living, at the cost of neglecting the dead. But a still greater difference to human well-being than this would seem to be at stake where the continued existence of an entire human generation hung in the balance. While our duties to the dead would admittedly support, rather than clash with, human preservation, such duties carry no more than diminutive strength when measured against the sheer overwhelming imperative to preserve humanity.

THE PLACE OF FUTURE GENERATIONS

This reflection suggests a reconsideration of the implicit place of future generations in our values. But Jonathan Schell has suggested that the risk of human extinction during the coming decades carries a much more immediate threat, striking at the meaning of life itself. For what makes it possible for our lives to have meaning here and now is the existence of an ongoing, communal and intergenerational 'common world' (Hannah Arendt's phrase), and the imminent truncation of this common world actually makes life forego its meaning and in this way renders all our values valueless.[10] For Arendt, the common world is made up of human works of lasting value, and gives meaning to all other human activities;[11] the extinction of humanity, Schell implies, curtails both the duration of the value created, and the shared character of the activities which create it, thus undermining the value of these pivotal activities in the present, and thus of all human life henceforth.

James, who gives this argument sympathetic consideration, endorses John Cooper's claim that '[p]articipation in shared activities is a necessary condition of a fully meaningful life'.[12] This claim could be doubted. Perhaps solitary mystics lead a fully meaningful life, and the claim should be that participation in these activities is typically (but not invariably) such a necessary condition. And if a meaningful but not-quite-fully-meaningful life can be led in the absence of these activities, as the supporters of this claim might concede, maybe they should really just be claiming that shared activities enhance life's meaningfulness.

But James manages to show that there is more to the relation between shared activities and a fully meaningful life. (He has in mind activities like contributing to art or to an ongoing subject of study.) Shared activities are valuable for human beings because we are social beings. Shared activities, more than purely private activities, enable one to be continuously and happily engaged, and provide one with an immediate and continuing sense of the value of one's activity. The activity of others agrees with and confirms one's own activity, providing an antidote to flagging interest. Moreover, shared activities enhance the meaning of one's activity by putting it within a broader group activity, which itself becomes a valued end.[13]

While these are mainly empirical, psychological claims, they also go a long way towards showing that, normally and typically, shared activities occupy a central place in a meaningful life. Perhaps there are also conceptual ties between the capacity for these activities and a worthwhile human life; I have argued this elsewhere,[14] but my argument there concerned the intrinsic value of the exercise of each of a whole range of capacities, without turning on the shared or communal nature of the activities in question.

James' argument turns to activities stretching out continuously into the future. Such activities (for example, science, philosophy and the arts) can also be shared activities, at least in the sense that they are 'engaged in with the hope and anticipation that future generations will continue them or participate in them'.[15] It could be added here that people who engage in such activities often regard their activity as defined (in part) by the contributions of past generations, and see themselves as continuing a tradition. Such sequential collaboration increases the meaning and value of the activity just as concurrent participation does. This is again a perceptive psychological observation on James' part.

The argument continues as follows:

> Sequential shared activity bestows meaning and value on the agent's life here and now whenever these activities are engaged in with the hope and anticipation that future generations will continue and participate in them. Without this hope and anticipation, intergenerational activities would lose some or all of their point.[16]

But interruption diminishes the value of activities pursued for the sake of the ends produced; and we might reasonably add that it also diminishes the value of activities performed for their own sake where the context which makes them worth pursuing for their own sake includes the prospect of continuing, intergenerational participation. '[H]ope and anticipation of a future is a fundamental context or

horizon for valuable and meaningful human activity.'[17] So the prospect of human extinction deprives these intergenerational activities of some of their meaning, and makes them comparatively valueless. Or so the conclusion would run. James takes this conclusion to apply both to activities like the construction of durable and lasting public goods such as buildings and bridges, of which the ends would be interrupted and nullified, and to activities like science, philosophy and the arts, of which the current intrinsic value might be held to turn, in part, on their character as involving the prospect of future participation. 'As Schell suggests . . ., only extinction can annihilate the prospect of future value.'[18]

This is how James relates his argument to nuclear omnicide and its implications:

> A nuclear holocaust does not merely promise to cause unimagined suffering and the death of those who are killed. Such an event would not only end our lives and prevent future generations from coming into existence; it would also render intergenerational activities and activities shared with contemporaries incomplete and futile – interrupting the career of humanity in midcourse and annihilating the value and meaning which otherwise would have existed.[19]

And writing a decade earlier, Edwin Delattre went even further:

> To the extent that men are purposive, . . . the destruction of the future is suicidal by virtue of its radical alteration of the significance and possibilities of the present. The meaning of the present depends on the vision of the future as well as the remembrance of the past. This is so in part because all projects require the future, and to foreclose projects is effectively to reduce the present to emptiness.[20]

Yet while all this shows that certain current activities would lose one of their central sources of value if life on Earth were shortly going to be obliterated, it does not show that life here and now would lose its meaning altogether. Even if we grant that participation in shared activities is a necessary condition of a fully meaningful life, the prospect of the curtailment of shared intergenerational activities would not spell the abandonment of shared activities in general. Would you, in these circumstances, give up (for example) conversation? Philosophy, science and the arts could, I suggest, also continue (in principle, right up to the last moment). So could sports like football; and it would be morally imperative that some shared activities should not be abandoned, such as the nursing of the dying. Given what was granted above about the value of shared activities, these shared activities could well continue to be sources of value, muted by gloomy anticipations, and beset, no doubt, by the reservations of some participants

about whether these activities were really worth pursuing in the circumstances.

For there could be replies to such reservations. Reactions to news of the prospect of an early death can range from making peace with family and friends (hardly signifying loss of all sense of value) to refusing to be interrupted in (say) playing the piano, in completing a game of chess, or in sitting in the shade in one's garden. In part, the implication is that some activities, such as playing music or chess, are intrinsically worthwhile; and this would be one way to reply to the sceptical reservations just mentioned. Indeed this implication would supply sufficient reason to persevere with many current activities (some of them shared ones). While these activities could well be less pleasant than usual (pleasure usually depending on unimpeded circumstances), they would not for that reason have become meaningless.

Thus future generations may not play quite the place in our values maintained by James. However, his argument does not show nothing. It shows that a considerable source of belief in the worthwhileness of current activities is the prospect of continuing, intergenerational participation. This is well brought out when James considers the objection that not all value can depend on hope for the future, as some people are prepared to die for the sake of honour, and such self-sacrificial activity is profoundly meaningful. But, as James replies, the death of an individual is not comparable with the extinction of humanity. 'Self-sacrifice is a shared social activity. . . . The hero, the duelist and the martyr hope to be remembered as those who chose death before dishonor. Fully meaningful self-sacrificial activity is possible only where there is hope of a human future.'[21] And what applies to self-sacrifice holds of a wide range of much more mundane behaviour.

This granted, is it really credible that the sole or the central ground for preserving humanity is the role of future generations in enhancing the value of current activities? Imagine that all such activities were doomed, but humanity still could be preserved (perhaps by computers programmed at the right time to defreeze and then nourish human embryos in an underground environment which would become secure from fallout 500 years after a foreseen global nuclear holocaust). Can it seriously be held that, if no other route to human survival were available, there would still be no obligation and no reason to arrange for humanity to be preserved by this means? And to return from this fanciful example to the world as it is, can it seriously be maintained that the main or the only reason for making plans now for the energy

needs of people likely to live when the world's current human population have all died depends on our current pursuits, and consists in the value which the present prospect of the activities of these future people confers on these pursuits?

WHAT IS WRONG WITH EXTINCTION?

Nevertheless, as John Leslie has remarked, many philosophers write as if there were no reason for preserving the human species beyond obligations either to the dead or to the living, and some as if there would be nothing wrong with allowing the species to extinguish itself, or even with actively extinguishing it ourselves, well before this would happen in the ordinary course of events.[22] Now the argument concerning the value of ongoing current activities already shows that the verdicts that there would be nothing wrong with allowing (let alone causing) premature extinction are unsupportable; for the prospect of premature human extinction deprives many (but not all) widespread current activities of their meaning and value. But, as has just been argued, there must be something else to explain the strength of the imperative not to allow or to make premature extinction come about, and to explain what it is that makes most people who contemplate the possibility of premature human extinction regard it as appalling. Cicero makes a parallel point: 'As we feel it wicked and inhuman for men to declare that they care not if when they themselves are dead the universal conflagration ensues, it is undoubtedly true that we are bound to study the interest of posterity also for its own sake.'[23]

Likewise the consequentialist ethic introduced and defended in Chapter 2 maintains that future people have moral standing (and future living creatures of other species too). Future generations have this standing even though their existence is contingent on current generations and the identity of future individuals is unknown at present; the good or ill of individuals who could be brought into existence count as reasons for or against actions or policies which would bring them into being. This in turn implies that where the existence beyond a certain date of individuals likely to lead happy, worthwhile or flourishing lives can be facilitated or prevented, there is an obligation not to prevent it, other things being equal. This does not mean that everyone should be continually having children; other things are seldom equal, and problems of human numbers mean that acting on this basis could easily produce overextended families, countries or regions, or an overpopulated planet, where extra people

would spell misery for themselves and for the others (see Chapter 7). But it does mean that each life likely to be of positive quality comprises a reason for its own existence, and that countervailing reasons of matching strength (concerning the disvalue of adding this life) are required to neutralise such a reason.

There are many other implications, including the importance of planning for the needs of future generations (considered in later chapters). A further implication, more relevant here, is that humanity should not be allowed to become extinct, insofar as this is within human control, even if, foreseeably, a small minority of any given generation will lead lives of negative quality (lives which are either not positively worth living or actually worth not living), as long as, overall, the lives of that generation are of positive quality, and the positive intrinsic value of worthwhile lives outweighs the intrinsic disvalue of the lives of misery. Since each generation is highly likely to include some lives which are not worth living, however hard its members and their predecessors may try to raise the quality of these lives, this implication makes all the difference to the issue of whether causing or even allowing the extinction of humanity is a moral crime. People who think that preventing misery is always of the greatest importance have to take the view that human extinction should be tolerated or even advocated; but the consequentialist ethic defended here says otherwise. So, of course, say the widespread intuitions reviewed earlier.

A modified version of one of John Leslie's thought-experiments[24] could be used to test much the same issue. On each of numerous inhabitable planets, capable of supporting a large human population, whose members would predictably lead lives of positive quality, there will also be a person whose life will predictably and inevitably be of negative quality. For the purposes of the thought-experiment, these large human populations can be brought into existence by waving a magic wand. Should this be done? For consequentialists who believe in optimising the balance of intrinsic value over intrinsic disvalue, and in counting every actual and possible life as having moral standing, the answer is affirmative, even though the resulting population of each planet includes a life of negative quality. But theorists who prioritise the prevention of misery would have to hold that the answer depends entirely on whether the life of negative quality on each planet can be prevented; if it cannot, then none of these lives should be engendered. (Others too, including consequentialists, might also take this view if the addition of human lives were liable to harm the living creatures of these same planets; to make this

thought-experiment a test case, we need to adopt the further assumption that no such harm would be done.)

This thought-experiment also has a bearing on human extinction. For the future of the Earth beyond a certain date (just after the death of the youngest person now alive) is in some ways similar to the situation of the planets just mentioned. The current generation could produce a population living then, most of them people with lives worth living, but only at the risk of producing a minority whose lives will foreseeably be miserable. If the happiness or the worthwhile lives of the majority do not count as reasons for generating those same lives, and hence nothing counts but the misery of the minority, or if the prevention of misery should be prioritised over all else, then allowing extinction is clearly mandatory, and so may be even genocide. However, as Leslie claims, the coexistence of hundreds of thousands of lives of positive quality with one life of misery is not morally disastrous, if the misery of the miserable life really cannot be alleviated.[25] (If of course this misery could be alleviated, whether by contemporaries or by the previous generation, then this might well be a morally disastrous situation, and alleviation would almost certainly be obligatory.) Consequentialism, then, does not mandate extinction, unlike several of the theories which stand opposed to it.

TOTAL USE, SELF-TRANSCENDENCE AND REASONS TO CARE

Consequentialism, however, is also sometimes accused of mandating either excessive population increases or the total appropriation of the surface of the planet by humanity, and there are people who would prefer a theory which would in some circumstances call for human extinction to a theory with these implications. But it has been explained above that consequentialism neither mandates nor encourages overpopulation; as I have argued elsewhere,[26] it advocates additions to the human population only if habitable spaces can be found (for example, on other planets) where such additions would neither harm other species nor lead to net losses of value. As for total use of the planet, consequentialists would find this objectionable partly because of the countless extinctions of species which would be implicated, together with the pre-empting of the value in the lives of all their future members, and partly because of the enormous impoverishment of humanity, which would forego the opportunity to experience wild places and to contrast the artificial environments of cities and countrysides alike with tracts of wilderness largely

unaffected by human interventions. (These are substantially the grounds supplied in Chapter 3 against total management of the surface of the Earth as a supposedly acceptable version of stewardship.)

These consequentialist reasons against the total use of the planet also explain why consequentialists could not be expected to prefer the maximising of the human population at the expense of subsequent extinction. Jan Narveson suggests that if lives of positive quality should be maximised, then a scenario in which a larger human population is concentrated in a few generations, followed by extinction consequent on the exhaustion of resources, would have to be seen as preferable to a less large population spread out across a longer future.[27] But the interests of non-humans (dependent on the same resources), together with the interest of humans in the continued existence of non-human life into the indefinite future, require the other scenario (the one with a longer human future) to be preferred, because the balance of reasons support it and value across time is maximised thereby. Human suffering at the stage when resources are running out, plus demoralisation at the prospect of extinction, supplement the grounds for this conclusion.

Philosophers who raise the question of why the interests of future people matter, and thus comprise a reason for conserving either resources or natural systems, usually write as if this questioning is consistent with recognition of current interests and values. But this view confronts the problem of reconciling disregard for the interests of one period and of recognising exactly similar ones of another period, apparently a clear case of unjustifiable discrimination. One writer who has honestly faced up to the implications of writing off the future is Thomas H. Thompson, who recognises that the questions of 'Why care about future generations?' and 'Why be moral?' are in practice the same question.[28] According to Thompson, these questions were capable of affirmative answers for devotees of religious belief, and to some extent for those influenced by Enlightenment substitutes for such belief, such as belief in progress, but for contemporary secular people no reason is left for the preservation of humanity, whether 'forever' or at all.[29]

Ernest Partridge's response to Thompson's case is profound, albeit incomplete. People, he argues, have a psychological need to transcend their petty interests, and to identify with larger ideals, movements or causes; and caring for posterity is a central case of such self-transcendence. Self-transcendence typically involves love, and, as John Passmore has suggested, to love is to care about the future of what we love, and for its sake rather than for our own. Partridge bears

out these claims by imagining that astronomers establish that events on the sun will extinguish all life and human culture from the face of the earth in two hundred years' time; such awareness would profoundly and enormously affect people now, because we need the future to lead fulfilled lives in the present.[30] This thought-experiment probably gains in forcefulness through not distinguishing between concern in the present for future generations of humanity and concern for those of other species; but there is no need to consider them separately here, as both are crucial to the value-theory of this book. The possible strategy (which technology might conceivably permit) of transporting both human culture and some of the species with which humans interact to another planet is not mentioned by Partridge; but its predictable appeal in the circumstances which he depicts further bears out his point about the importance of the future for present people.

Responses like Partridge's help to show how people are often motivated to care for individuals and groups beyond their own interests; and the issue of actual motivations has to be tackled in response to positions like Thompson's. But so does the issue of what we have reason to do, whether or not we are actually motivated; for the value of life and of quality of life (as opposed to their perceived value) cannot fluctuate with whether given agents care about it or not. And if life of a positive quality gives those agents who can promote or preserve it reasons to care, as morality presupposes, then this applies in principle to caring about future lives just as much as to present ones. Our intuitions about the appalling nature of allowing or actually causing human extinction point in the same direction. The ethic put forward in this book (see Chapters 2 and 3 above) recognises all this and turns out to supply reasons for caring, and not only guidance about policies and conduct.

If so, then anyone who accepts this value-theory and ethic, whether his or her outlook is secular or religious, implicitly recognises a multitude of reasons to care. Religious beliefs such as those discussed in Chapter 3 will sometimes accompany (and may underpin) this recognition; but belief in stewardship, as argued there, can adopt a secular form, not dependent on belief in perpetual progress, and equally capable of fostering this same recognition. Partridge's argument adds that self-transcendence, in which such caring is central, is also beneficial for the psychological health of those who care, averting the narcissistic self-preoccupation and alienation which is so prevalent in current society. Indeed he holds, reasonably enough, that people lacking self-transcendence should be pitied.[31]

Love of nature, in particular, can arise through experiences of aesthetic appreciation, whether focused on scientific understanding, central to Allen Carlson's account of environmental aesthetics,[32] or on the arousal in us of appropriate emotions, as in Noël Carroll's supplementary account.[33] Love of this kind often originates from local experiences (which can be fostered, for example, by schools through outdoor nature study) but often extends (particularly when teachers facilitate its extension) to local ecosystems and to the global systems of nature.[34] Such love can be held in itself to involve self-transcendence, and can also prompt awareness of reasons to care, for the sake of future people as well as current ones.

Accordingly, reflection on the possibility of human extinction serves to reveal a good deal both about our values and about our interests. It reveals both our concern for the continuation of shared human activities, and recognition of the positive value of every worthwhile life, whether present or future, thereby reinforcing the value-theory of the consequentialist ethic presented in Chapter 2 above, which dovetails to a nicety with the findings of the current chapter. But these values do not make provision for future generations a straightforward matter, important as it has been seen to be, nor solve how to reconcile it with provision for current interests and needs. In Part II, issues concerning the conservation of resources and of ecosystems and concerning sustainable provision for both current and future needs will be addressed.

NOTES

1. See Roy Porter, 'The End is Nigh', *The Observer,* 14 April 1996.
2. Colin Tudge, *The Day Before Yesterday*, pp. 34–5.
3. Ibid., p. 74.
4. Ibid., p. 58.
5. Stephen J. Gould, *Eight Little Piggies*, p. 229.
6. Tudge, *The Day Before Yesterday*, pp. 361–3.
7. See Jan Narveson, 'On the Survival of Humankind', in Robert Elliot and Arran Gare (eds), *Environmental Philosophy*, 40–57, at p. 56.
8. John O'Neill, 'Future Generations: Present Harms', *Philosophy*, 68, 1993, 35–51; *Ecology, Policy and Politics*, ch. 3.
9. David N. James, 'Risking Extinction: An Axiological Analysis', *Research in Philosophy and Technology*, 11, 1991, p. 53; James ascribes this view to K. Kipnis.
10. Jonathan Schell, *The Fate of the Earth*, pp. 117–18.
11. Hannah Arendt, *The Human Condition*, pp. 49–58.
12. John Cooper, 'Aristotle on Friendship', in A. Oksenberg Rorty (ed.),

Essays on Aristotle's Ethics, pp. 324–30; cited at James, 'Risking Extinction', p. 57.

13. James, 'Risking Extinction', p. 57.
14. Robin Attfield, *Value, Obligation and Meta-Ethics*, chs 4 and 5; *A Theory of Value and Obligation*, chs 3 and 4.
15. James, 'Risking Extinction', p. 58.
16. Ibid., p. 58.
17. Ibid., p. 62.
18. Ibid., p. 61.
19. Ibid., p. 62.
20. Edwin Delattre, 'Rights, Responsibilities and Future Persons', *Ethics*, 82, 1972, 254–8, at p. 256.
21. James, 'Risking Extinction', p. 59.
22. John Leslie, *The End of the World,* pp. 155–80.
23. Cicero, *De Finibus,* 3.64; cited in Stephen R. L. Clark, 'Environmental Ethics', in Peter Byrne and Leslie Houlden (eds), *Companion Encyclopedia of Theology.*
24. For some related thought-experiments, see Leslie, *End of the World*, pp. 181–3.
25. Ibid., p. 181.
26. Robin Attfield, *Value, Obligation and Meta-Ethics*, ch. 10; *Ethics of Environmental Concern*, ch.7.
27. Narveson, 'On the Survival of Humankind', pp. 41–2.
28. Thomas H. Thompson, 'Are We Obligated to Future Others?', in Ernest Partridge (ed.), *Responsibilities to Future Generations*, 195–202, p. 200.
29. Ibid., pp. 200–1.
30. Ernest Partridge, 'Why Care About the Future?', in Partridge (ed.), *Responsibilities to Future Generations*, pp. 203–20; John Passmore, *Man's Responsibility for Nature*, pp. 88–9.
31. Partridge, 'Why Care About the Future?', pp. 206, 214.
32. Allen Carlson, 'Contemporary Environmental Aesthetics and the Requirements of Environmentalism', *Environmental Values*, 19.3, 2010, 289–314.
33. Noël Carroll, 'On Being Moved by Nature: Between Religion and Natural History', in Allen Carlson and Arnold Berleant (eds), *The Aesthetics of Natural Environments*, Peterborough, ON: Broadview Press, 2004, pp. 89–107.
34. Perceptions of this kind can also be fostered by pictorial works such as Troth Wells and Caspar Henderson, *Our Fragile World: The Beauty of a Planet Under Pressure*, Oxford: New Internationalist, 2005.