

ESSAY

Why we should care for future generations now

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This article argues that caring for future generations is a legitimate ethical concern that arises from our common humanity. The first section explores several reasons why this extension of concern is appropriate and desirable. The second considers a number of strategies for accomplishing this goal. It is argued that caring for future generations now has a number of 'win-win' outcomes. That is, it has positive implications for the well-being of present generations as well.

Human beings from any culture are not separate, isolated beings. They are intensely social. Hence relationships are of central concern to them. The web of social relations provides the primary context in which the individual lives and works. However, this web is not limited to the present. It also embraces past and future. *Figure 1* shows some processes connecting past, present and future. First, a seamless flow of influence is depicted. Second, the loops of time-journeys and the ways that they can be basically escapist (through anodyne historical reconstruction or future fantasy) until they reconnect to the present through active processes such as interpretation and anticipation. Finally, the lower part of the diagram suggests that the present is constructed by a 'tacking' back and forth, a process that 'weaves' the present from past and future. It is no accident that this can be

represented by the infinity sign. (This has sometimes been a startling insight, a moment of deep perception, for students coming across it for the first time.) When done consciously and well this 'tacking' process draws phenomena that are distant in space and time into the broad arena of human awareness. Hence the boundaries inscribed on the taken-for-granted present can be dissolved, opening our eyes to the panorama of what has sometimes been called the unbounded present, or the 'eternal' now.

It is evident that the human brain–mind system is richly endowed with the capacity not just for primary consciousness (seeing what is here-and-now) but with reflexive understanding in time. This higher-order consciousness is partly characterized by the ability to remember and to learn, to roam consciously throughout a rich, complex, extended present, to understand responsibilities and consequences, and to speculate on futures yet to come. Edelman characterizes it this way. He writes:

The freeing of parts of conscious thought from the constraints of an immediate present and the in-

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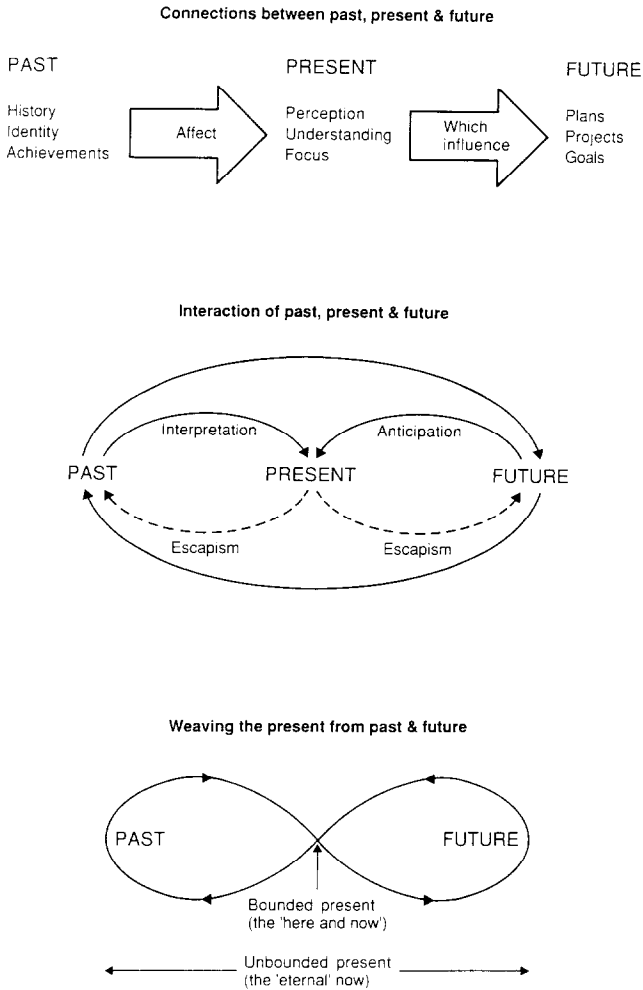


Figure 1. Relationships between past, present and futures.

creased richness of social communication allow for the anticipation of future states and for planned behaviour. With that ability come the abilities to model the world, to make explicit comparisons and to weigh outcomes; through such comparisons comes the possibility of re-organising plans. Obviously, these capabilities have adaptive value.¹

Human beings therefore have an innate capacity for speculation, foresight, modelling and choosing between alternatives. They are not stranded, willy-nilly, in a deterministic world. Rather, they are consciously located in a socially created, but self-actualized, matrix of structures, understandings and forces. It is for such reasons that human beings are able to care

about future generations. As we approach the end of the 20th century, the particular conditions of this time make it appropriate to consider the grounds for extending our sense of community and concern to include future generations. Six reasons for attempting this shift are given below.

Aspects of a rationale

The human project is unfinished

The present level of civilization in the world may be an advance on what it was (an arguable point) but it is clearly a long way short of the best we can imagine. To achieve the latter would at minimum require: a halting of population growth, a more equitable

distribution of wealth, opportunity and justice, an end to war and the wholesale restoration of the Earth's ecosystems.

Thus we ought not to confuse technical sophistication with being civilized. In many ways the global megaculture is openly barbaric, despite its technical virtuosity.² Clearly, this suggests that the human project is unfinished. There is much work to do; better, more enlightened societies to strive for, infrastructures to redesign, social innovations to be created and applied. Elsewhere I have explored the notion of a wise culture, contrasting it with our own. Duane Elgin has elaborated this idea in great detail and explored possible stages toward such a culture in his fascinating book *Awakening Earth*.³

The limited lifespan of the individual means that all must face a personal extinction. But the knowledge of death may, to some extent, be offset by knowing that the social collectivity will continue. It is moderated by the existence of children, who will themselves have children. Children are representatives of posterity. Their presence reassures us that the future continues, though we do not. They are the promise of unlimited future generations, the evidence that beyond us lie potential worlds of great promise, as well as great peril. To deny these extensions of ourselves diminishes us precisely because we are social beings, with the capacities noted above: foresight, prudence, responsibility. The life of the individual is, first and foremost, an expression of what has gone before and a foundation for what is yet to come. It is the pivot upon which the future is balanced.

Caring for future generations is ethically defensible

The view that we should care about future generations has a number of supporting arguments. Various writers have set out aspects of an ethical foundation for acknowledging responsibilities to future generations. For example, Agius draws on A N Whitehead to propose a 'relational theory of intergenerational ethics'. This emphasizes the social and ecological context of human life past, present and future and proposes that 'the long chain of generations forms one single community'. It concludes that 'the common good is the good

of mankind as a whole'.

Relational metaphysics gives a philosophical reason for the broadening in scope of the notion of the common good from the national to the supranational, and from the supranational to the common good of all humankind. The interrelatedness of all reality links every particular actuality to the whole, which encompasses the past, the present and the future. Since the ultimate community to which every human person belongs is the whole community of humankind, the common good of a particular society cannot be separated, firstly from the common good of the world community, and second, from the common good of all humankind.⁴

Weiss takes this argument further and derives three principles of intergenerational equity for use in international law. These involve the conservation of options, quality and access. The first principle suggests that 'each generation should be required to conserve the diversity of the natural and cultural resource base, so that it does not unduly restrict the options available to future generations in addressing their problems and satisfying their own values'. The second principle suggests that 'each generation should be required to maintain the quality of the planet so that it is passed on in no worse condition than the present generation received it'. The third principle suggests that 'each generation should provide its members with equitable rights of access to the legacy from past generations'. Weiss concludes that 'enforcement of planetary rights is . . . appropriately done by a guardian or representative of future generations as a group, not of future individuals, who are of necessity indeterminate'.⁵

The notion of a guardian, or ombudsman, for future generations has been taken up by a number of writers, such as Bruce.⁶ Finally, in a wide-ranging review of approaches to future generations and the environment, Wright concludes that 'if we acknowledge any responsibilities to future generations at all, the bottom line is the preservation of basic life-support systems and the resource base as a whole'.⁷

In summary, it would not appear difficult to discern ethical grounds for caring about future generations. The difficulty arises when we attempt to apply these grounds in the face of competing claims and priorities. As Linstone and others have

noted, future discounting is endemic in market-oriented societies, so any questions about future generations tend to be subject to unconscious filtering or dismissal by hard-pressed decision makers and others.⁸ Hence the focus below on measures to enhance our ability to care.

We are partly responsible for the dangers to their well-being

No single generation could, or should accept total responsibility for the condition of the world since this is to a great extent a result of long-term trends and of inherited ways of life. However, each generation does bear a responsibility for the ways it responds to the situation it finds itself in.

Those now alive are increasingly aware that the world is imperilled by the force of human numbers, by a range of technical and environmental impacts and by the flow-on effects of such activities. According to some authorities, we are in the middle of a human-initiated 'great extinction' of other species. The atmosphere is changing. Pollutants are universal. The tropical rainforests are being rapidly destroyed. Ecological devastation has already arrived in some countries, while for others it represents an increasingly likely future. Beyond this, new technologies are being actively developed. They represent 'revolutions in the making' with all the attendant risks involved. The long-term storage of nuclear waste raises quite new concerns about cultural and institutional continuity and the need to communicate effectively with future generations about these dangers.⁹ It is ironic that one of the most consistent messages being sent by this generation to its own and future people is the explosive, maiming force of countless land-mines, debris of forgotten wars, scattered carelessly by the tens of thousands in many parts of the world. This is a measure of the modern barbarism mentioned above.¹⁰

While one could argue that progress in arresting the threats to present and future generations has been made, the consensus is that what has been done so far is not enough. In other words, present generations have not reacted, or adapted, fast enough to prevent a range of known threats from growing increasingly serious. Rather than planning ahead and using the world in

a careful, far-sighted way, industrial societies have plundered, and are plundering, the global commons for short-term gains.¹¹

Perhaps the central failure of the 20th century to date is that it has not been possible to arrest what might be called the 'Western/industrial dynamic' based on rapid material growth, undervaluation of natural resources, overconfidence in technical measures and chronically short-term thinking. Unfortunately, however, such concerns are not easily resolved since they arise from deep-seated modes of self-understanding, social presuppositions, powerful social formations and paradigmatic ways of doing things. What this suggests is that the critique of industrialized ways of life is central to any resolution of the 'global problematique' and, by extension, the plight of future generations. While we are not wholly responsible, acknowledgment of our individual and social complicity provides grounds for taking a more active role in dealing with threats to future generations. How should we act? What constitutes an ideal society, or at least, a sustainable one? Here is where futures research, caring for future generations and social ethics overlap. A number of social philosophers have attempted to answer these perennial questions.¹² All appear to involve a much stronger role for social ethics than has hitherto been the case. In particular, the rise of post-materialism seems central.

The global commons have been compromised by human activity and restorative actions are necessary

A strong response to the global problematique is to discern those levers and turning points that can initiate a new system dynamic. One such pivot is 'the foresight principle', that is, the view that one does not need to wait for final evidence (of a danger or threat) to act in a timely and effective fashion.¹³ Another is the adoption of a stewardship ethic in place of the earlier one of 'growth at any cost'.

A stewardship ethic can arise from many sources: from deep ecology, environmental activism, the direct perception of intrinsic value and so on. It basically reverses earlier assumptions and places a very different view at the heart of the social

order. That view is simply that people are part of nature, but a special part with a special responsibility, ie to care for it. Such a view would mandate a shift of social and economic emphasis away from short-term degradation towards one of restoration. This is a long-term project. Just as, in the Australian context, it took 200 years to turn thin soils to dust and salt, so it may take another 200 to restore them. However, this is a worthy goal for a society willing to look beyond its own immediate well-being.

The effort to phase out ozone-destroying CFCs is one example of how concerted effort can take place within and between nations. However, the Rio 'Earth Summit' was markedly less successful, and the environment is at present not at the top of many political agendas. Hence the environmental threats to future generations continue to grow.

To not care about future generations diminishes us

It is common in many societies to discourage selfish, self-centred behaviour, and many sanctions are maintained to prevent it—rules, laws, police forces and so on. The reasons are at least twofold. Selfishness increases social conflict, and it interferes with the full development of individual potential. The latter unfolds as people become more self-less, ie outwardly oriented, concerned for others, co-operative, charitable and problem-solving in outlook.

These principles hold true for societies as a whole. A selfish and predatory society becomes a threat to those around it and also cripples its own development. A short-sighted society will erode its natural resource base and destroy the very foundations of life that would have supported future generations. We have historical examples of this process, many of them exacerbated by colonial expansionism and exploitation. Not caring, then, about future generations, permits those now living to engage in actions and activities that are demonstrably harmful. Those who live according to such diminished ethics are diminished in moral stature and in richness of experience. It follows that caring for future generations may well have benefits for those now alive.

Caring for future generations is a cultural force which is valuable now

When questions arise as to the practicality of say, reducing atmospheric pollution or conserving fossil fuels, good answers often hinge on finding immediate benefits (such as reducing waste and increasing efficiency). When I use the term 'caring . . . as a cultural force', it is because I can see certain benefits accruing to us, now, if we take it seriously. For example, a sustained attempt in Australia to halt land degradation, if properly founded, would provide many jobs across the country and permit the further development of ecological expertise. In time, formerly ravaged areas could be reseeded with appropriate life-forms, creating a series of new biomes. I do not think it necessarily hubristic to imagine that some areas could be made richer, more diverse, with the guiding light human intelligence, than nature could have achieved blindly. If so, then we can anticipate new uses for restored landscapes; for example, scientific study, new food sources, the recovery of ritual and ecotourism. However, let us also remember that beyond 'use-value' lies the barely glimpsed continent of 'intrinsic value', with its own cultural ramifications.

Take another example. If a new concern for future generations helped prompt us to reexamine our consumer behaviour, particularly the 'use-it-up-and-throw-it-away' syndrome, we might begin to demand that products were better made and longer-lasting. This would reduce the present unacceptable drain on the Earth's resources (as do certain forms of technical innovation, eg doing more with less). We might also begin to challenge commercial practices that have become ingrained and clear the airwaves of the mental pollution which is commercial advertising. The latter is a long-standing and significant impediment to a more advanced, caring and far-sighted culture. It certainly continues to promulgate habits and values that are manifestly inappropriate to the historical conditions of the late 20th century and beyond.

Finally, caring for future generations would help generate social support for what I call 'institutions of foresight'. These 'look-out institutions' could provide early warning about the implications of present trends, explore dangers and depict future options. They therefore have a role not merely in

disaster avoidance (although this is important) but also in setting agendas and determining directions. Just what should a particular country be aiming for in the 21st century? This is a question which is hardly ever asked. Yet it is vitally important for present and future well-being. One practical way to develop the forward view is to initiate a national 21st century study. While only a few countries have such a study, the theoretical and methodological underpinnings are well tested and readily available.¹⁴

Thus caring for future generations carries with it many benefits for the present: a less damaging and rapacious handling of the environment, a stimulus to conflict reduction, the development of more advanced values and ways of doing things (business, government, commerce, education) and a more articulated, long-term view.

Measures for enhancing our capacity to care about future generations

A rationale for caring is a starting point. But it is also necessary to show how such caring can be implemented in a range of concrete ways. So the second part of this article considers some of the latter. A useful framework is provided by Macelli, who distinguishes six specific disadvantages for future generations. They are downstream in time; unofficial, lacking any effective voice; absent and therefore outside mainstream social concerns; currently non-individualized; distant in time and powerless. They contribute nothing directly to present society, yet the latter affects them profoundly.¹⁵

Since some of these categories overlap, I propose to reduce them to just three. I therefore deal with downstream, absent and distant in time as one category, unofficial and powerless as a second, and not yet individualized as the third. In each case a number of responses are suggested. Finally some overall responses covering the range are discussed.

Responses to the fact that future generations are downstream, absent and distant in time

It is well known that many traditional cultures took a broader view of time and change than is now common. They gave respect to ancestors and included future generations in many of their councils. For example, the Iroquois appointed special

chiefs as guardians of future generations. In part they were 'mentors of the people for all time'. They were to 'look and listen for the welfare of the whole people and have always in view not only the present but also the coming generations, even those whose faces are yet beneath the surface of the ground, the unborn of the future Nation'.¹⁶ How ironic it is that present generations are now rediscovering the need for a broader, longer-term view of social, cultural and ecological processes.

One way to recover this broader view of time is to revalue and conserve non-Western cultures and traditions that have been marginalized over the past two or more centuries. Another way is to locate within Western culture sources of support for more long-term and inclusive views. They are not hard to find. For example, Burke wrote compellingly of 'the partnership of the generations', Arendt discussed what she called 'the common world' and Passmore has explored the grounds of 'man's responsibility for nature'.¹⁷ As noted above, later writers have built on these themes to the point where intergenerational concerns can certainly be articulated. However, these concerns tend to be eclipsed by the currently more powerful ideologies of pragmatism, utilitarianism and competitive individualism, within the dominant framework of economic rationalism and global capitalistic hegemony.

What is at stake here is the constitution of a collective worldview. The need to critique the dominant global technoculture is matched by the need to envisage and imagine other social and economic arrangements. The fact that future generations are disadvantaged in the ways mentioned should act as a spur to help us renegotiate aspects of the inherited world-view. More specifically, we require a longer-term, and more inclusive view of time, community and the evolving world picture. To put it differently, this is equivalent to 'broadening the frame' within which we live to include those not yet present. The '200-year present' is one way to approach this question.

I first came across the idea in a 1978 paper by Elise Boulding and later heard her give a seminar on the theme. It basically proposes that we take the period defined by 100 years back and 100 forward as being 'our space in time'.¹⁸ Although it is a simple idea, the more I have used it, the more

productive it has become. For it subtly overturns the implicit taken-for-granted identification of 'the present' with the scientific here-and-now which has been foregrounded in Western culture. It takes us back to the people and contexts which generated our present, permits us to follow the processes of continuity and change, and then to refocus on the follow-through over the next 100 or so years. It provides 'a sense of social process' which links the experience of several generations. In fact it is an ideal project for students who, with a little guidance, can interview older members of their family and use this material to speculate on the 21st century. In other words, it provides an effective way to overcome temporal chauvinism and to begin to attune to the broader sweep of historical change, past and future.

The disciplined study of futures is another way to 'broaden the frame'. No-one can predict the future. However, a careful reading of current trends, an assessment of near-future dangers and an evaluation of new sources of novelty 'in the pipeline', as it were, provide part of the basis for elaborating many aspects of what can be metaphorically termed 'the future landscape'.¹⁹ This structural, broad-brush overview has many strategic uses and is by no means simply an academic exercise. Moreover, by carrying out these tasks with care and concern, we are in fact creating intellectual, imaginative and operational space for future generations.

A shift from short-term to long-term thinking would be all-but-impossible in present conditions without a futures discourse. It follows that the growth and development of such a discourse is of paramount importance in overcoming these disadvantages for future generations. This is partly why it is necessary to teach about futures in education at every level, from kindergarten to university. In my view, the best starting point is not futures methodology, but futures concepts.²⁰

Responding to the fact that future generations are unofficial and powerless in today's society

To get anything done quickly requires official support and power, both of which are unavailable to future generations. How-

ever, it is within our gift to provide them with representatives who could be given official status and a measure of symbolic power. A number of writers have proposed an ombudsman for future generations, or someone in a similar position to give them an official voice in the present. Such individuals could be located in offices close to government or in purpose-built institutions of foresight (see below). A Council for Posterity was proposed in the UK a few years ago, though its present status is uncertain. The basic idea was to use prominent people to highlight long-term issues through publicity, competitions, staged events etc. A potentially far more powerful strategy is to create what has been termed 'a Court of Generations' within the judicial branch of national governments. One such proposal for the USA would delegate a citizen from each state and members of the Supreme Court for high-level national dialogue about current and future issues.²¹

A different approach has been taken by Tough, who has trialled a 'Council for 2020' and developed the notion of making a pledge to future generations. In the former case a group exercise is performed in which people think themselves into the frame of mind of people in the future. They then speak as if from that viewpoint in order to communicate with people in the present. This is similar to the 'Council for all beings' in which people take on voices for other species. Both can be surprisingly effective and very moving for participants. Composite messages can be derived from each, drawing attention to specific concerns. On the other hand, a pledge to future generations is a personal statement from an individual about their stance toward the future and the kinds of commitments they are willing to undertake.²² This is a useful way of making explicit some of the ethical concerns to emerge from the future generations debate, and of transforming some of them into personal actions.

Finally, there is one practical way of communicating directly with future generations—the time capsule. This provides a rare opportunity to do two things. First, to scan the present for items of particular interest or value as direct gifts to future people. Second, to frame specific and concise messages which will be left for them. It is an unusually moving thing to initiate a message which will not be read until long

after one's death. It concentrates the mind effectively. In such a message, one speaks from the heart, is keenly aware of passing time and is also deeply aware of the implicit presence of future people. Hence this is a consciousness-raising activity *par excellence*.²³ Thus, the unofficial and powerless condition of future people can be compensated for in a number of practical ways. By giving them proxy voices, by 'asking' them to comment on our world, by 'listening' to them, by having an ethical stance toward them, by making a pledge, and by leaving time capsules, we expand the possibilities for discourse and for influence to be exerted on their behalf.

Responding to the fact that future generations are not yet individualized

While no-one doubts that there will be future people, the fact that they do not yet exist as individuals has made it difficult to impute rights to them. However, there are ways of making future people more real. One is to reflect on our organic continuity with them through our shared genetic material. Although a strand of DNA is by no means a person, the foundations of all future human life are safeguarded through this delicate, but resilient system. The Human Genome Project is currently mapping the entire sequence and this focuses attention closely on our continuity with, and responsibility for, future generations. The debates about modifying the genome have already started.²⁴ We are entering an ethical minefield with unknown consequences for the future of our species.

Another way to give future persons more individuality and presence is to consider some of the more evocative novels of the future in which present-day authors have provided us with compelling images. For example, Kim Stanley Robinson's novel *Pacific Edge* provides fascinating insights into the characters and the context of a 21st century society in Northern California in which the politics of water plays a dominant element.²⁵ George Turner provides an arresting picture of well-rounded characters in his novel *The Sea and Summer* which depicts a future Melbourne which is partially flooded due to the greenhouse effect.²⁶ By contrast, Ursula Le Guin paints a contrasting picture of a future civilization in *Always Coming Home*.²⁷ Here, a cast of convincing

characters acts out a scenario in which the preoccupations of the 20th century are only a distant memory. For example, machines are relegated to the sidelines. As in times past, ritual, relationship and stewardship now occupy the cultural centre stage. I found the life story of a character named Flicker particularly moving. There is also a very evocative poem written by a 20th century author in our past, but which, in the context of the book, is written by future children speaking to us from our future, which is their present. This is a superb example of 'time-binding', the evocation of significance from a broad cultural and temporal arena.²⁸

Now clearly these are not future people in all their gritty substance and reality. They are merely images of future people. However, my point is that the human brain/mind system can respond to these images (knowing they are only constructions) in ways which help to substantiate the reality of human existence in a range of future environments. In this way, personhood is imputed to our descendants. And the future, far from being a distant abstraction, actively resonates with human and cultural possibilities, many of which have their roots in our own time and even in our own individual lives. This is one of the main results of immersing oneself in high-quality futures-related material. Far from being 'de-centred' and lost in an alienated universe, this view places human action, human agency right back at the centre. Thus, the symbolic starting points for a broad-spectrum futures discourse (ideas, images, plans, projects, goals, responsibilities etc)—and hence the growth of caring discussed here—are certainly within reach.²⁹ They do need to be taken up and used more widely.

Conclusion

In conclusion, I make two points. First, the disadvantages faced by future generations can be compensated for to some extent if present-day people see future people and societies as inextricably bound up with their own present, their own reality, exactly as theirs is with the past. That is, if they no longer subscribe to the view that all that counts is 'me, my own and now'. This habitual mode of perception is perhaps the main obstacle to caring for future generations and a primary reason why our future is in doubt. A longer-term view is functional

for present people in the ways outlined above. It also initiates the process of safeguarding the future—keeping options open—on which all future generations depend.

Second, there are specific practical arrangements that can be undertaken by present people to develop an ethical and far-sighted culture. Ethical considerations can be brought back into the heart of late-industrial cultures. Existing institutions of foresight can be studied; the principles of their operation can be clarified; the necessary social resources can be designated to ensure that short-term thinking becomes a thing of the past. In short, the essentials of a 'foresight culture' can be developed and applied at the beginning of the 21st century.³⁰ This is arguably the greatest gift the present generation could give to future ones.

Notes and references

1. G Edelman, *Bright Air Brilliant Fire: On the Matter of the Mind* (New York, Basic Books, 1992).
2. N Chomski, *Year 501: The Conquest Continues* (Boston, MA, South End Press, 1993).
3. R Slaughter, *The Foresight Principle: Cultural Recovery in the 21st Century* (London, Adamantine Press, 1994; D Elgin, *The Awakening Earth* (New York, W Morrow and Co, 1993).
4. E Agius, 'Towards a relational theory of intergenerational ethics', in S Busuttill *et al*, *Our Responsibilities to Future Generations* (Malta, Foundation for International Studies, 1990), page 87.
5. E Weiss, 'Intergenerational justice and international law', in *ibid*, pages 98–100.
6. M Bruce, 'Institutional aspects of a charter of the rights of future generations', in *ibid*, pages 127–131.
7. J Wright, *Future Generations and the Environment* (Canterbury, New Zealand, Centre for Resource Management, Lincoln College, 1988).
8. H Linstone drew attention to the phenomenon of future discounting in 'Confessions of a forecaster', in H Linstone and C Simmonds, *Futures Research: New Directions* (Reading, MA, Addison-Wesley, 1977).
9. J Nolin, 'Communicating with the future: implications for waste disposal', *Futures*, 25(7), September 1993, pages 778–791.
10. See S MacLeod, 'And still they kill', *Time*, 8(46), December 1993, pages 32–37.
11. See L Brown *et al*, for a range of insights into 42 'Earth indicators' in, *Vital Signs 1993* (Washington, DC, Worldwatch Institute, 1993).
12. Eg C Birch, *On Purpose* (Sydney, New South Wales University Press, 1990); also *Regaining Compassion for Humanity and Nature* (Sydney, New South Wales Press, 1993); and P Singer, *How Shall We Live?* (Melbourne, Text Publishing Co, 1993).
13. Slaughter, *op cit*, reference 3.
14. See M Garrett *et al*, *Studies for the 21st Century* (Paris, UNESCO, 1991).
15. T Macelli, 'Responsibilities to future generations—the scope', in Busuttill *et al*, *op cit*, reference 4, pages 52–53.
16. G Mander, *In the Absence of the Sacred* (San Francisco, CA, Sierra Club, 1991), page 237.
17. J Passmore, *Man's Responsibility for Nature* (London, Duckworth, 1974).
18. E Boulding, 'The dynamics of imaging futures', *World Future Society Bulletin*, 12(5), 1978, pages 1–8.
19. R Slaughter, 'Looking for the real megatrends', *Futures*, 25(8), 1993, pages 827–850.
20. H Beare and R Slaughter, *Education for the 21st Century* (London, Routledge, 1993).
21. B Tonn, 'The Court of Generations: a proposed amendment to the US constitution', *Futures*, 23(5), June 1991, pages 482–498.
22. A Tough, 'Making a pledge to future generations', *Futures*, 25(1), Jan/Feb 1993, pages 90–92; also see 'What future generations need from us', *Futures*, 25(10), December 1993, pages 1041–1050.
23. See A Moncrieff, *Messages to the Future: The Story of the BBC Time Capsule* (London, Futura, 1984).
24. See D Kevles and L Hood (editors), *The Code of Codes* (Boston, MA, Harvard University Press, 1993); and T Wilkie, *Perilous Knowledge: The Human Genome Project and its Implications* (London, Faber, 1994).
25. K Robinson, *Pacific Edge* (London, Orbit, 1989).
26. G Turner, *The Sea and Summer* (London, Faber, 1987).
27. U Le Guin, *Always Coming Home* (London, Gollancz, 1986).
28. 'From the People of the Houses of Earth in the Valley to the Other People Who Were on Earth Before Them, *ibid*, pages 404–405.
29. See 'The knowledge base of futures studies', *Futures*, 25(3), April 1993, special issue.
30. Slaughter, *op cit*, reference 3, chapters 7–10.