

# LOOKING FOR THE REAL 'MEGATRENDS'

**Richard A. Slaughter**

**The term 'megatrends' was coined by John Naisbitt in the early 1980s and used to describe a series of changes ostensibly taking place in the USA and elsewhere. It passed into the language and has been used widely ever since. However, the term and much of what has been attempted under its banner are not without problems. This article looks at a number of attempts to survey various trends and seeks to answer several questions. What do these sources tell us? Can a reliable overview of global change be derived from them? Is there any value in the concept of a 'megatrend'? If so, how might it be used? If not, what pointers may be derived for the near-term future? Some of the limitations of empirical work are noted and the role of critical and epistemological approaches is discussed.**

This article begins with an overview of surveys of global change, and at the outset examines several popularized accounts of change.

## ***Megatrends and Megatrends 2000***

The first *Megatrends* book addressed a range of shifts (see Table 1). Some are technical (no 2), some are sociological (nos 1, 5, 6, and 8). Others are economic (no 3), geopolitical (no 9), political (no 7) temporal (no 4) and strategic (no 10). The focus was primarily on the USA. The intention of the work was said to be 'to discover the many ways America is restructuring, to understand how the pieces fit together and to try to see what the new society looks like'.<sup>1</sup>

The main resource used was reports in US newspapers and other printed sources. These were subjected to content analysis by a team of researchers and interpreted by Naisbitt. The result is a fascinating, provocative and highly idiosyncratic overview of change processes in that context. A brief review of each of the ten makes this clear.

The first, *industrial society to information society*, is, in my view, half-true, in

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that the 'developed' nations have certainly passed beyond the former. But the view that we now live in an 'information society' remains controversial. The 'electronic cottage' has certainly proved to be something of a myth. While none can doubt the importance of information *per se*, the rise of an information sector and the vast increase in communications of all kinds, it is perhaps a mistake to read this instrumental label on any society as a whole. In a broad-spectrum hierarchy of knowledge, information comes above raw data, but beneath knowledge, and well beneath wisdom. So, with Hazel Henderson, I suggest that the idea of an information society indicates lazy, conventional thinking and, by now, is certainly dated.

*Forced technology to 'high tech/high touch'* certainly identifies the increased sophistication of many new technologies and the pleasure of using them. Yet the wider question that is being addressed is not really modern, nor is it in any sense 'mega'. It is rather a minor qualitative detail of the age-old process of interaction between people, culture and technology. So it is only weakly a trend highlighting an aspect of what are in fact profoundly contested relationships. The discussion is largely by selective examples. It makes no reference whatsoever to the science, technology, society (STS) literature which has explored such themes with greater depth and thoroughness. Hence this account tends to trivialize the subject.

Trend three, *from national to global economy*, is perhaps the strongest of the ten. It accurately reflects aspects of the globalization process, which is certainly one of the great forces of our time.

Trend four, *short-term to long-term*, is overoptimistic by a long shot. It is based on selective examples which exaggerate the extent to which this supposed trend has been achieved. A decade later, sustained and systematic long-term thinking is as rare as ever. Societies, businesses, politicians and others remain caught up in short-term thinking, and the benefits of foresight remain largely unacknowledged.

Five, *centralization to decentralization* is ambiguous. It is an overgeneralization, that is not universally applicable, and certainly not so outside the USA.

Six is similar. *Institutional help to self-help* reads like a gloss on economic rationalism, which, as an ideology, may well have passed its peak. So again, this is a weak or ambiguous interpretation, not a strong trend.

Seven, *from representative democracy to participatory democracy* is simply wrong. While it is true that citizen participation has increased in many places, representation is still much more common than any real notion of participation.

Eight, *from hierarchy to networking*, is wrong for a different reason. Here a false dichotomy has been erected. While it is true that networking has developed rapidly, it still takes place amid very many hierarchies. This is not a from/to phenomenon, nor even an either/or one; it is both/and, and hence not a trend as such.

Nine is *north to south*, which, we learn, also covers 'east to west'. This reflects some important economic and geographical trends in the USA, but is of little or no interest elsewhere. So, in a limited sense, it may reflect a real trend, but not a very interesting one unless you happen to be in the USA.

Finally, ten is *either/or to multiple option*. I can see the basis for this in the increase in choice in many contexts, particularly with regard to consumer goods and services. But one should remember that either/or was never a particularly productive way of thinking. In many ways there have *always* been multiple options, when people have been prepared to search them out. So, yes, micro-segmentation

TABLE 1. THE ORIGINAL MEGATRENDS

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1. Industrial society to information society
  2. Forced technology to high tech/high touch
  3. National economy to global economy
  4. Short term to long term
  5. Centralization to decentralization
  6. Institutional help to self-help
  7. Representative democracy to participatory democracy
  8. Hierarchies to networking
  9. North to south
  10. Either/or to multiple option
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Source: J. Naisbitt, *Megatrends* (New York, Warner Books, 1982).

TABLE 2. MEGATRENDS 2000

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1. Global economic boom of the 1990s
  2. Renaissance in the arts
  3. Emergence of free-market socialism
  4. Global lifestyles and cultural nationalism
  5. Privatization of the welfare state
  6. Rise of the Pacific rim
  7. 1990s: decade of women in leadership
  8. Age of biology
  9. Religious revival of the 3rd millennium
  10. Triumph of the individual
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Source: J. Naisbitt and P. Aburdene, *Megatrends 2000* (London, Sidgwick and Jackson, 1990).

may have increased enormously in some contexts, but no, this is not a real choice; it is a superficial interpretation of a more complicated reality. Nor should we forget that well founded critiques of consumerism point to the problematic status of options and choices in this context.

So what is the score? The two most successful items are perhaps no 3 and no 9. The rest are subject to one or another kind of important qualification and, to this observer at least, do not qualify for the term 'megatrend'. They are not 'mega-' and they are certainly not all trends. Let us therefore turn to *Megatrends 2000*.

*Megatrends 2000* is certainly a much more substantial work. Gone are the simple progressions of A-to-B which characterized the earlier book. It is better researched, more international in outlook and less idiosyncratic. Surprisingly, the much-touted contents of the earlier book are dismissed in a few words: 'these shifts continue pretty much on schedule. But they are now only part of the picture . . .'.<sup>2</sup> This is clearly disingenuous. The purpose of the new book is said to be 'to establish a categorical foundation on which a greater depth of knowledge can be built'.<sup>3</sup> It is odd, therefore, that the authors declare a particular kind of bias: 'because the problems of the world get so much attention, we, for the most part, point out information and circumstances that describe the world trends leading to opportunities'.<sup>4</sup> Yet these new foci are also intended to be 'structural'! This approach is needed to compensate for the amount of data that people must deal with each day—in other words, to provide a way of dealing with complexity.

In this context, omitting major problems is tantamount to ignoring a very important part of late-20th-century reality. It arguably throws the book off-centre before it even starts. The impression is heightened by the way the authors exaggerate the symbolic importance of the beginning of the new millennium and ringingly conclude in a moment of rapture that 'on the threshold of the millennium, long the symbol of humanity's golden age, we possess the tools and the capacity to build utopia here and now'.<sup>5</sup> This is clearly over the top—indulgence where clear-eyed analysis would have been more appropriate. So what trends will herald this utopia? (See Table 2.)

First is *the global economic boom of the 1990s*. What stands out here is that in 1993 such a boom is nowhere in sight. The chapter reads almost like a pamphlet for free-market ideology. It is a paean for cornucopian economics of the Kahn/Simon school: ignore the 'doomsters', growth is good, the market is more important than politics. This is not so much a trend as a right-wing, up-beat view of a future that never happened (at least, not yet).

Next is a *renaissance of the arts*. Here a lot of quantitative data are given, mainly from the USA. The data show that the numbers of string quartets, orchestras, art galleries and theatre performances have all significantly risen. The argument is simple: more equals better. The question of *qualitative* or *cultural* significance is not even debated. So while a trend certainly exists, just what the trend might signify is obscure.

Third is a better chapter mapping *the emergence of free-market socialism* in the former Soviet Union, Eastern Europe, China and elsewhere. It is a competent overview, although in retrospect there has been a lot more conflict than is prefigured here. I certainly support the view that the monolithic confrontation between capitalism and Marxism is over, and also that we have left the industrial era behind. So, overall, a successful chapter.

Fourth is a combination of two trends—what the authors call *global lifestyles and cultural nationalism*. On the one hand, familiar brand-names are used around the world. On the other is a move back towards asserting local cultural and religious identities. On the whole this is a reasonable summary, clearly identifying some real long-term changes. The flaw here (and it is one that permeates the whole opus) is that the discourse used appears 'value-free' in that it attempts to describe, not evaluate. The authors stop short of even *beginning* to say what these twin shifts might mean. So, while it is spot-on in many empirical details, it is a barren chapter from an interpretative viewpoint. I return to this point below.

Fifth is the *privatization of the welfare state*. This has much in common with trend no 1, above, since it shares the same underlying ideological framework. It is also closely related to trend no 6 in the first book (institutional help to self-help). Like these it is moderately right-wing and puts a lot of the responsibility back on the individual. This, incidentally, ties in with trend no 10, below. If one supports free-market capitalism, this is a reasonable analysis. If one doesn't, it isn't.

Sixth, *the rise of the Pacific Rim* is pretty accurate, though by now it is also conventional wisdom. It is a mainly economic account, with many familiar statistics to show how the shift from the Atlantic to the Pacific is occurring. The term 'rim' has become dated since it omits the island nations. So 'Pacific Basin' is preferred nowadays.

Seventh, is *the 1990s: decade of women in leadership*. A lot of good news is quoted here, again mainly from the USA. I found it overoptimistic and unsupported by evidence from other countries. If it were correct, I cannot see why the trend would be limited to a decade.

Eighth, is *the age of biology*. I understand what the authors mean by this but a so-called 'age of . . .' hardly qualifies as a trend. Some biotechnological developments are outlined here, along with a few ethical dilemmas that they create. But it is a superficial and unsatisfactory piece which takes the stereotypical view that 'technology is neutral'. I remember taking that position myself when I was a student and my excuse was ignorance. But these globe-trotting analysts should know better. Just as with trend no 2 in the first book (toward 'high tech/high touch') there is no *hint* here of the wider debate about the role of science and technology in post-modern cultures. Jeremy Rifkin gets a mention, but none of the more substantial critics do. So, again, this is a naive analysis.

Similar objections can be made about the ninth trend, *the religious revival of the third millennium*. Some useful insights are delivered, but it remains descriptive and superficial. There is more second-hand millennial fever than substantive comment based on anything vaguely like a theory.

Finally, there is what the authors call '*the triumph of the individual*'. I found this the most problematic chapter. My understanding is that the vast majority of people in Western societies (let alone those elsewhere) feel anything *but* triumphant. While it is true that individuals are potentially very powerful, that potential is only realized by a very few. A case is made that communications technologies are empowering individuals, and I am sure that is the case. But, again, how many are involved globally? We are not told. Nor are the counterarguments canvassed which suggest that new technologies are 'two-edged swords' which also create new problems and dependencies. The powerful critiques of state manipulation, duplicity and dependency put forward by writers such as Lewis Mumford, Jaques Ellul and Noam Chomsky are never even mentioned. So I must conclude that the 'triumph' is largely one that the authors have invented. From my point of view, and as I suggest below, the near-term future looks as though it gets a good deal harder before it gets easier, so this 'triumph' is a long way off.

What emerges from this exercise in 'megatrends'? Well, not a lot really. Of the total of 20, less than one third qualify as major trends. Most of the others are weak, ambiguous, superficial or problematic. The second book is better than the first, for the reasons given. And I do agree with the authors on two points. First, that the industrial era is over. Second, that people should not take this analysis as gospel: they should construct their own. Unfortunately, too few people have the resources or time to do so. Hence, this seemingly authoritative, but in fact deeply flawed, analysis takes on a default status that is methodologically and intellectually unsustainable.

There are some major fallacies in both books. One is the assumed (but not argued) adherence to free-market ideology. Another is that a focus on 'opportunities' is superior to one that also includes dangers. This omission has allowed the authors to ignore the global problematique and therefore to overlook entirely key structural issues about the dynamics of a transition to sustainability.<sup>6</sup> I do not think that the latter word appears anywhere. So the books are really about playing an old game better (albeit with numerous innovations) rather than changing the nature of the game itself. This is a serious defect which, taken alone, casts doubt on the whole exercise. Another major deficiency is the almost exclusive focus on *external* reporting in a way that affects to be 'value-free'. Yet, clearly, it isn't. For another view I turn to the *Future Survey Annual* of 1991. While crediting *Mega-trends 2000* with some 'new slants on common ideas' and 'some fresh and provoking notions', the annual also commented that 'this is a prime example of creaming the future . . . it tends to info-tainment and/or religion'; moreover, the prominence of the authors in the USA 'complicates the enterprise of serious futures thinking'.<sup>7</sup>

This would appear to be a harsh judgment for books that have stimulated wide popular interest. However, several things are clear. First, both are bereft of theory. No mention is made in either of the *limitations* of trend extrapolation or content analysis in interpreting complex processes of change. Second, the way the first set of trends is set aside for the second is suspicious. A more credible approach would have been to *use* the first ten in the later book and to comment on how they had changed in hindsight. Third, the trends chosen are highly selective, both as regards the US-centred focus, and also in respect of the wider processes of change within the global system. *There is simply no systematic reason for choosing this particular set of foci*. Nor is any given.

So what is the motivation for such works? In a word, *marketing*.<sup>8</sup> The appar-

TABLE 3. THE POPCORN REPORT

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- |     |                        |
|-----|------------------------|
| 1.  | Cocooning              |
| 2.  | Fantasy adventure      |
| 3.  | Small indulgences      |
| 4.  | Egonomics              |
| 5.  | Cashing out            |
| 6.  | Down-ageing            |
| 7.  | Staying alive          |
| 8.  | The vigilante consumer |
| 9.  | 99 lives               |
| 10. | SOS (Save Our Society) |
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Source: F. Popcorn, *The Popcorn Report* (Sydney, Random House, 1991).

ently authoritative identification of such trends is a symbolically (but *not* substantively) powerful resource which can be sold to anyone seeking a competitive 'edge' during difficult times. Their popularity within business environments and elsewhere is undoubtedly due to the way that they interpret *and simplify* the world. In other words, 'megatrends' provide a largely false sense of security, a way of gaining a seriously distorted impression of 'the big picture' without critical thinking or further effort.

### ***The Popcorn Report***

Faith Popcorn's approach is similar to Naisbitt's, yet it is more folksy and practical. She, too, has faith in the ability of trends to outline the future. In her view 'it's the present culture that points the way ahead'. Her rationale is outlined succinctly:

Trends are predictive because they start small, then gather momentum. If you can connect the dots between the inception of a trend and the impact it will have on your business, then you can fine-tune your product to fit the trend. As each trend builds and makes its way through the marketplace, it increases its hold on the consumer. And because trends last on average ten years, the momentum of the current trends will propel your business, any business, ahead to the end of the decade or beyond.<sup>9</sup>

The social interests at work here are clear. These trends are intended to inform business, the prime constituency for Popcorn and her consulting outfit. From her descriptions and homilies, it appears to be a successful enterprise with a simple method that works. The actual trends (Table 3) are more consistent than Naisbitt's in that they focus on the limited arena of consumer trends within the USA that have clear marketing implications. Apart from no 10, they have little to say about the wider world. Again, there is little in the way of theory offered here. There are simple guidelines for using and profiting from trends. But no mention is made of the theoretical and practical drawbacks of this kind of analysis. It is all kept very simple: you detect a trend that is relevant to your business and you use that trend to help you (and your clients) make decisions.

To be fair, I have to say that Popcorn covers a lot of useful detail about some of the ways that suburban life in the USA is evolving. One could not accuse her of simply 'creaming the future'. Yet there are vast constituencies in the USA and elsewhere for whom these descriptions would be laughable or worse. What she so clearly describes is the fragile ego of middle America searching for succour in a threatening world—and only occasionally finding it in a series of substitute satisfactions. Books of this kind are certainly accessible. But they simply do not have the

insight or the depth to engage with the underlying issues and concerns of human-kind in the late 20th century. They can be likened to the proverbial 'rearranging the deck-chairs on the Titanic', rather than steering the ship or, better, learning to travel differently.

Having looked at popularized accounts of change, I now move into a different arena. The following sections provide brief overviews of what five different professional futurists or organizations have to say. I emphasize that those who are interested in these accounts should consult the originals, rather than work from my selective summaries.

### **'Trends shaping the world' (Cetron and Davies)**

Marvin Cetron and Owen Davies stand in the same tradition as Naisbitt and Popcorn. As Table 4 shows, theirs is an encyclopaedic and empirical approach, covering many areas and sectors. Their 12 general categories cover much that is important in reading the near-term future of the global system.<sup>10</sup>

It is fair to say that, once again, there is not much in the way of overt theory in this account. The authors do appear (and the operative word is 'appear') to be just watching and reporting. They are openly optimistic, believing that the world of the 1990s will be more peaceful and prosperous largely because military competition is being replaced by the requirements of international trade. In 1993 this looks overstated. They also underestimate the seriousness of environmental threats. Some interesting comments are made regarding international alignments (the information revolution will fuel demands for change; international organizations will become more important; public diplomacy will continue to grow).

However, this detailed enumeration of trends 'out there' is fundamentally unhelpful for one very important reason: it overlooks the primacy of the world 'in here'—that is, the world of language, ideas, values, ideologies, purposes and meanings. Hence this approach, while broad, comes over as one-dimensional and therefore inadequate.

### **'Factors shaping and shaped by the global environment: 1990–2010' (Coates)**

Table 5 outlines Coates's much more sophisticated approach.<sup>11</sup> As may be seen, it begins with an account of 11 forces that are held to be driving global change. It then considers several global policy patterns and seven driving forces in the USA. Regional scenarios are given for a number of areas. Next, seven areas of science and technology are explored in relation to their usefulness as instruments for environmental management. Finally, three policy opportunities are outlined and three policy recommendations given for the USA. It is worth looking at some of these in a little more detail.

Population growth and economic development are seen as the two key drivers of global environmental change. Interestingly, urbanization and disease are both seen as inhibitors—the former because it reduces flexibility of response and the latter because it reduces vitality. The destructive power of war is pointed out, and industrialization is seen as reproducing old problems in some areas. It is consistent with US ideology that multinational corporations and developments in

TABLE 4. 50 TRENDS SHAPING THE WORLD (CETRON AND DAVIES)

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*Population*

1. Contrast between births declining in rich countries and the 'population bomb' in poorer ones
2. AIDS epidemic
3. New medical technologies make life more comfortable in the industrialized world
4. Bad health habits move to the Third World
5. Better nutrition (etc) lead to an increase in life expectancy

*Food*

6. Farmers harvest more than needed but inefficient delivery means there is still hunger
7. Size and number of farms is increasing
8. Science is increasing the world's supply of food
9. Food supplies will become healthier
10. Water plentiful in most regions, but short in some areas

*Energy*

11. Oil will provide more of the world's power in 2000 than in 1990
12. Oil prices likely to fall to \$7-9 per barrel
13. Growing competition for other energy sources

*Environment*

14. Air pollution/atmosphere issues will dominate ecopolitics for years
15. Trash disposal an increasing problem

*Science and technology*

16. High technology turnover rates are accelerating
17. Technology dominates economy and society in the developed world—its central role will grow
18. Technical gap between the developed and underdeveloped world will continue to widen
19. Nations will exchange scientific information more freely but will hold back technical data
20. R&D will play an ever-greater role in the world economy

*Communications*

21. World's communication network will grow rapidly in the next decade
22. Growing power and versatility of computers will change the ways we do business

*Labour*

23. World's labour force will grow by only 1.5%/year during the 1990s
24. Shrinking supply of young workers, labour force ageing rapidly
25. Unions will continue to lose their hold on labour
26. People will change residences, jobs and occupations more frequently
27. Wave of new entrepreneurs . . . is the leading edge of a broader trend
28. More women will continue to enter the labour force

*Industry*

29. Multinational and international corporations will continue to grow
  30. Demands will grow for industries to increase social responsibility
  31. 1990s are the decade of microsegmentation: more search for narrower niches
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TABLE 4. 50 TRENDS SHAPING THE WORLD (CETRON AND DAVIES)  
(continued)*Education and training*

- 32. Literacy will be a fundamental goal in developing societies
- 33. Education reform in the USA will restore the nation's competitive position in the world
- 34. Higher education changing as quickly as primary and secondary schools

*World economy*

- 35. Will grow at rapid rate but rich/poor gap will widen
- 36. Will become more integrated
- 37. Will be divided into three trading blocs
- 38. The EC will become a major player in the world economy
- 39. The 25 most industrialized countries will devote between 2% and 3% of GDP to help the Third World
- 40. Western bankers will accept that one-third of debts will be forgiven
- 41. Indebted nations will promote private industry
- 42. Washington, DC, will supplant New York as world financial capital

*Warfare*

- 43. World is 'safer' for local or regional conflicts
- 44. 'Brush fire' wars will grow more frequent and bloody
- 45. Tactical alliances formed by common interests . . . will replace long-term commitments

*International alignments*

- 46. The information revolution will fuel demands for change
- 47. Continual formation of loose confederations in and between countries
- 48. Role of major international organizations will become more important in the new world order
- 49. International bodies will take over much of the peacekeeping role abandoned by superpowers
- 50. Public diplomacy will continue to grow, spurred by advances in communications and increased role of international organizations

*Source:* M. Cetron and O. Davies, 'Trends shaping the world', *The Futurist*, 25(5), September–October 1991, pages 11–21.

science are seen as two very positive forces. However, the growth of environmental pressure groups and the increasing willingness of international organizations to intervene in local trouble spots are also seen in a positive light.

While the world is seen as being fundamentally divided in environmental terms, Coates does see an emerging consensus on the resulting problems. This involves a recognition of such concerns as the greenhouse effect, threats to the ozone layer, nuclear issues, the loss of tropical forests, soil erosion and so on. A structural approach to such problems is recommended in order to establish quite new relationships between aspects of the global system. Interestingly, however, the important role of systems thinking is not developed here, although it is of obvious importance.

A good deal of attention is paid to the role that different branches of science and technology may play as tools of management. While I accept that much of this is true, I would have also liked an admission that science and technology can be profoundly ambiguous, creating new problems even as they promise to solve older

TABLE 5. FACTORS SHAPING AND SHAPED BY THE ENVIRONMENT: 1990–2010

<i>Drivers of global environmental change</i>	<i>The sources of new problems</i>
1. Population growth	30. Immunological diseases
2. Economic development	31. Brain function disruptions
3. Urbanization	32. Human reproductive capability
4. Disease	33. Genetic effects
5. War and collective violence	34. Trace materials and their interactions in the body
6. Globalizing multinational corporations	35. Microorganisms in the environment
7. Industrialization	36. Electromagnetic effects
8. Developments in science	<i>Policy implications for the US Environmental Protection Agency (EPA)</i>
9. Social and political value changes	37. Need for a radical restructuring of environmental management
10. International public administration	38. Need for a new Act of Congress to set policy agenda
11. Long-term meteorological and climate cycles	39. Need for radical strategic and long-term analysis by EPA
<i>Global policy patterns</i>	<i>Science and technology as instruments for environmental management</i>
12. The great division	40. Ecology
13. Emerging consensus on global environment and problems	41. Remote sensing from space
14. Policy alternatives	42. Biochemistry
15. R. Dreiker's model of 'do what you can'	43. Biotechnology
<i>Environmental drivers in the USA</i>	44. Oceanography
16. Environment is good for business	45. Geology
17. Institutionalisation of environmental concerns	46. Social sciences
18. Shifts within government	<i>Policy opportunities</i>
19. Health issues reinforce environmental issues	47. Policies for Third World or developing small countries
20. Use of economic tools	48. Role of international organizations
21. The legislative dilemma	49. US bilateral agreements
22. The sources of new problems	<i>Policy recommendations for the USA</i>
<i>The multiple environmental agenda in the USA</i>	50. Recommendations to Congress and the White House
23. Toxics	51. Recommendations for the EPA
24. Solid waste	52. International assistance
25. Clean air	
26. Clean water	
27. Environmental preservation	
28. Expanding awareness of interactions	
29. Nuclear energy	

Source: J. Coates, 'Factors shaped by and shaping the environment 1990–2010', *Futures Research Quarterly*, 7(3), Fall 1991, pages 5–55.

ones. Yet I was also impressed with the way that the author included social sciences, with their insights into human behaviour, attitudes, modes of communication and even economics.

A range of general policy options are explored for Third World nations, international organizations and US bilateral agreements. The article closes with recommendations to Congress, the White House and for international assistance. Overall, this is a detailed and sophisticated analysis, based on close and careful reading of the evidence. It attempts to be critical, even though it emerges from a non-critical tradition of futures work. The strong focus on policy is to be commended and may in part be explained by the proximity of the author's consultancy to Capitol Hill. The approach is strong on policy patterns, options and recommendations. It is light on cultures, systems and alternatives. Perhaps the biggest weakness is that the possibility of seeing *ideas* as drivers in their own right is hardly considered at all.

TABLE 6. LONG-TERM PROSPECTS FOR THE WORLD ECONOMY (OECD)

*World*

1. Projections are optimistic: c 3% average annual growth in world output by 2000

*North America*

2. Formation of a North American Free Trade Area (NAFTA), leading to migration towards Mexico
3. A 'peace dividend' resulting from reduced East–West tension

*Europe*

4. Healthy growth into the next century of 3–4%/year
5. Likelihood of increased social and economic integration
6. Major uncertainties for the former Soviet Union

*Asia/Pacific*

7. Continuation of rapid growth of c 5–6%/year
8. Japan challenged by ageing population and possible shortage of labour
9. Relocation of industrial production outside Japan
10. Australia and New Zealand's economic relations with region to grow
11. Uncertainty over the role of China
12. Continued urbanization and industrialization will exacerbate environmental problems
13. Efforts needed to protect tropical forests
14. Intensification of exchanges within the Asia/Pacific area

*The rest of the world*

15. Prospects for growth uneven
16. Growth expected to resume in Latin America
17. Prospects for Africa south of the Sahara are pessimistic

*Global issues*

18. Shift of economic gravity from Atlantic to Pacific Basin
19. Slow emergence of China as a major economic player
20. Regionalism v multiculturalism
21. Saving and investment imbalances:
  - high demand for relatively scarce investment may keep interest rates high
  - prospect of major reduction in military expenditure
22. System competition and system friction:
  - possibility of a convergence process to reduce friction
  - conflicts between regions likely to intensify

*Source: Long-Term Prospects for the World Economy (Paris, OECD Forum for the Future, 1992).*

***Long-term Prospects for the World Economy (OECD)***

The twin focus of this product of the OECD Forum for the Future series, is economics and geopolitics.<sup>12</sup> Table 6 shows that the baseline projections for global economic growth are optimistic. Similarly, the analysis shares the views of Cetron and Davis, in that a 'peace dividend' is expected from a reduction in East–West tensions. Strong growth is expected in Europe and in the Asia/Pacific region. Elsewhere, the pattern is more uneven—a resumption of growth in Latin America but stagnation (or worse) in southern Africa.

The rise of the Pacific Basin is recognized, along with the slow emergence of China. But three major sets of uncertainties are also identified: regionalism v multiculturalism; imbalances between savings and investments; and the options for

convergence or conflict between states and systems. Strong emphasis is laid on the desirability of a more open and stable international environment. This, it is suggested, would permit an easier flow of investment, technology transfer and so on. It would mean that environmental and equity problems could be tackled more directly without wasteful diversions. Ultimately, the responsibility for creating stability is laid at the door of the rich nations, which are urged to use regional integration as a springboard for 'extended multilateralism'.

All this sounds familiar and reasonable. But here is the rub. The view is very conventional. Growth is taken as an unqualified good, and the need to reform economics itself is not mentioned.<sup>13</sup> So the analysis appears to be another extension of an increasingly unsatisfactory worldview, rather than a reconceptualization of it. The key element missing here is critique.

### ***The 35 Global Forces Restructuring Our Future (Feather)***

We next turn to an account which begins not from unmediated observation (if such a thing is possible) but from a quasi-critical viewpoint (regarding disinformation, myths, prejudices etc) and set of theories—six 'waves' of change, and long-wave cycles expressed in four STEPs (society, technology, economics and politics).

Table 7 summarizes Feather's framework.<sup>14</sup> It stands in contrast with the other examples above, in that it has a strong process orientation. The four broad categories are expressed in terms of satisfying . . . creating . . . redistributing . . . and restructuring. This has the tangible benefit of locating the world problematique well within the arena of human and institutional responses, rather than in a transcendental realm beyond human influence.

The author provides a balanced account of psychological drives. Aside from satisfying basic human needs (such as food, shelter and work), this account stands out in the way that it identifies 'the untapped capability of educated people' as an important constructive force. However, I found the account of an information-rich 'leisure society' anodyne and unsatisfying. Among all the hyper-information networking and greatly enhanced computer power there are some dark problems lurking, but they are not well addressed here.<sup>15</sup> While it may be true that information can substitute for mass, I do not believe that it can substitute for everything. Hence the up-beat technophilic aspects of this future may be overdrawn.

The notion of redistributing the riches of the globe is, however, a good one. It strikes at the heart of the current rich/poor dilemma. I admired the author's sweeping confidence about reinventing capitalism, communism and the global financial system. There is also much to be gained from seeing ecological restoration as a powerful new system imperative. However, I remain sceptical about the outer-space economy. While the potential is undoubtedly enormous, so are the costs. Moreover, it would be prudent to reinvent the dominant worldview *before* going into space in a big way, lest we carry our fractured late-industrial reality with us. Living so close to 'hard' vacuum would make most forms of conflict untenable at 'the high frontier'.

Most political changes recommended here have much in common with other accounts, although Feather does put forward the idea that the United Nations could create councils for each of his STEP foci. If there is a flaw in this approach, perhaps it is in the view that what is needed is better management. That may be true. Yet, as I suggest below, I doubt that it is sufficient.

TABLE 7. 35 FORCES RESTRUCTURING OUR FUTURE (FEATHER)

*Social motivation: satisfying psychological drives*

1. Stabilizing global population
2. Feeding the future
3. Clean water for all
4. Global wellness
5. Meaningful work for a globalized labour force
6. Housing the future in super-cities
7. Sexual and racial harmony
8. Globalizing values, beliefs and culture
9. The untapped capability of educated people

*Technological innovation: creating the information-rich society*

10. Eliminating hard work
11. Drive for productivity and efficiency
12. Global sharing of information and technology, boosting wealth creation
13. Growing computer power
14. A real-time info-globalized network of information facilities (ISDN)
15. The techno-leadership of Japan
16. Pushing back high-technology frontiers
17. An information-rich world, substituting information for mass

*Economic modernization: redistributing planetary riches*

18. Atlantic 'sunset' and Pacific 'sunrise'
19. Industrializing the Third World
20. Reinventing the global financial system
21. The planetary information economy creating a growing 'pie'
22. Ending global energy shortages
23. Resource self-sufficiency
24. Restoring the earth's environment
25. Reinventing capitalism and communism
26. Converting military waste to earthly ecodevelopment

*Political reformation: restructuring political power*

27. Disarming the planet
28. Traumatic rebirth of America
29. Perestroika
30. Soviet unification of Europe
31. Japan as 'number one' in global technology
32. China's economic modernization for late 21st century
33. Third World solidarity and independence from the developed countries
34. Informed 'partocracy' (participatory democracy) in the Western information society
35. Cooperative global governance

*Source:* F. Feather, *G-Forces: Reinventing the World. The 35 Global Forces Restructuring Our Future* (Toronto, Summerhill Press, 1989).

## World 2000 (Halal)

A further attempt to gain an overview of the global context is World 2000, a project of the World Future Society. It attempts to synthesize a number of overviews and insights from many individuals and organizations, and to present them as a 'collaborative planning dialogue'. The three key foci are presented in Table 8. Here are nine 'supertrends' or 'principal driving forces', five 'critical issues' and five broad strategies.

The trends are not simply regarded as isolated phenomena. They are used to create a composite scenario in which 'the Earth appears to be moving along a fairly

TABLE 8. TRENDS, ISSUES AND STRATEGIES FROM WORLD 2000

*Major trends*

1. A stable population of 10–14 billion people
2. Industrial output increased by a factor of 5–10
3. Information technology will permit the 'wiring of the globe'
4. A continuation of the 'high-tech' revolution (DNA mapping, robotics, new materials etc)
5. Closer integration of the globe into a single community
6. Diversity and complexity through ethnic regions, subcultures etc
7. A universal standard of freedom and human rights
8. Limited crime, terrorism, war and disease
9. A resurgence of transcendent values

*Critical issues*

1. Making the transition from separate nation states to a global order
2. Resolving the conflict between economic growth and sustainability
3. Reconciling economic interests through a new economic paradigm
4. Understanding and managing complexity at the institutional level
5. Alleviating the disparities between North and South

*Strategies*

1. Disseminate advanced technology to unify the globe
2. Integrate economics and society
3. Nestle society into its environment
4. Decentralize institutions to empower individuals
5. Foster collaborative working relationships and productive alliances

*Source:* W. Halal, 'World 2000. An international planning dialogue to help shape the new global system', *Futures*, 25(1), 1993, pages 5–21.

well prescribed path of development' which is also seen as akin to 'a natural process of maturation'. This 'central scenario' is taken as a '“standard future” from which other scenarios could be defined'.<sup>16</sup> As may be seen, the critical issues cover geopolitics, economics, environmental limits, complexity and North/South disparities. Furthermore, 'these disparities are exacerbated by one of the most pervasive problems of our time—a collapse of faith in the familiar old world system which guided humans through the past epoch with good success'. So the key 'meta-issue' is that of how to respond to the breakdown of the old order, lack of leadership and other social malfunctions. An explicit case is therefore made for 'a new paradigm, model, story, or belief system [that] must somehow be formed [to] allow people to make sense of today's radically different global realities'.<sup>17</sup>

To deal with such concerns, a 'master strategy' employing holism and systems thinking is recommended. This is broken down into the five strategies listed in Table 8. A couple of difficulties arise at this point. For example, Strategy 1 refers to 'the relentless advance of modern technology' as if it were an autonomous force outside human control. Again, the reintegration of social and economic life is recommended in part because it is more 'efficient'. Yet efficiency is not necessarily a paramount value in this particular context. However, other suggestions are more sound. They include the incorporation of social indicators into measures such as GNP, the need to reconstruct authority relations, and methods to foster collaboration and cooperation in a wide range of contexts. Finally, five alternative scenarios are derived from possible failures to pursue the 'master strategy'. They cover the

following emphases: low-tech; neo-capitalism; ecological collapse; authoritarian rule; and social conflict.

The article mentions the 'paradox of large-scale social change'. That is, the view that 'global change is utterly beyond our personal control since massive evolutionary forces are involved, yet these forces largely emanate from the collective actions and awareness of countless individuals'.<sup>18</sup> The limits to certainty are acknowledged, and the notion of co-creation is highlighted. The primary skill called for is 'a gentle attentive humility'. It is a welcome contrast to the dominant intellectualism of the field.

World 2000 clearly embodies a sophisticated and advanced approach to the global problematique. It displays a broad conceptual and methodological grasp, a strong process and participatory orientation, a careful exploration of alternatives and a clear focus on strategies, actions, policies etc. Its oversights are relatively few. More could have been made of the role of futures work in governance and social learning. The role of institutions of foresight could have been laid out more clearly. Ways of conceptualizing the emergence of a new, or renewed, worldview could have been more fully developed. However, this is obviously a useful addition to the debate.

## Discussion

An underlying problem raised by these accounts is the diffuseness of the area and the lack of a common framework. We have seen how seven attempts to map change have made different assumptions and come up with various outcomes. Yet there are points of congruence.

Most of these observers would broadly agree that the dominant environmental trends are strongly towards deterioration, and corrective responses are badly needed. Yet few tackle the central issue of sustainability, or the dynamics of a transition towards it (see below). Broadly speaking, technology is seen as a positive force which can help to solve problems. But, on the whole, the view of technology is not a sophisticated one. It is seen more in terms of 'new tools' than as a social process with costs as well as benefits. Overall, and worryingly, *the dominant trends of scientific and technical development are not subjected to anything approaching a thoroughgoing critique*. One would have thought that this would be a priority for futurists. Yet it is clearly a professional 'blind spot'. New ethical dilemmas are mentioned in respect of the new biology, but the likely costs of, for example, nanotechnology (they are by no means trivial) are not mentioned at all. Information technology is seen as a strong positive driving force. But its various negative implications (including its vast potential to stimulate 'unreality industries' and hence to encourage people to *dissociate* themselves from an increasingly challenging world) does not appear to be a concern.

The threat of war and violence is recognized by nearly all observers, but most have underestimated the extent to which these have already played a larger role in the early 1990s than had been expected. There is more agreement and 'fit' with actual conditions in respect of the unsatisfactory functioning of the global economy. Most seem to accept that this will continue, although some observers put forward suggestions for conceptual or institutional changes. Difficult as they are, the practical arts of planet management seem to be more accessible than the deeper questions of wealth, culture, value and what might be meant by 'growth'. The latter is mentioned by most observers, but in the larger picture it is clearly

TABLE 9. SOME FACTORS INVOLVED IN IDENTIFYING A TREND

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<i>Personal:</i>	interests, background, values, cognitive style, favoured metaphors
<i>Institutional:</i>	position, orientation (market, non-profit, interest group, activist etc)
<i>Professional:</i>	training, constituency, disciplinary paradigm
<i>Methodological:</i>	approach, methods, nature of significant data
<i>Cultural:</i>	race, religion, region, history
<i>Ideological:</i>	Marxist, socialist, capitalist, communitarian, radical, post-modernist
<i>Level in global system:</i>	institution, area, state, region, globe
<i>Level of analysis:</i>	events, practices, ideas, worldview commitments

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TABLE 10. ANALYSES LINKED TO LEVELS OF FUTURES WORK

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1. Pop futurism	Naisbitt, Popcorn, Cetron and Davies
2. Problem-oriented:	Coates, OECD Feather, Halal
3. Critical:	Henderson, Meadows
4. Epistemological:	Berman, Wilber, Harman, Ogilvy, Inayatullah

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unresolved. Redefining growth would appear crucial, but it is unclear to what extent this is occurring.

So the attempt to define a set of clear and comprehensible 'megatrends' is by no means as easy as it may appear. It is certainly possible to identify major change processes that are occurring in the global system which have some continuity. World 2000 comes out well in this respect. Two others worthy of note are those by Lester Brown (and colleagues) and Jim Dator. The former takes the notion of 'vital signs' to assess the state of the global system and provides a detailed overview through 36 key indicators. The latter surveys five broad global processes and discusses their implications.<sup>19</sup> Both strike a useful balance between empirical and interpretative elements.

One conclusion of this survey is that accounts which are pitched mainly at the empirical level are unsatisfactory for at least two reasons. First, they are necessarily selective in scope, and second, they contain interpretative elements which tend not to be clearly stated. *Empirical statements must be related to a specific context and framework of analysis.* It should be carved on each trend observer's heart that *what we mean by a trend does not depend merely on what seems to be happening in the external world.* While empirical approaches to knowledge have tended to emphasize the external and the measurable, Table 9 suggests that the external world is *mediated* by a complex range of factors. This implies that part of any work about trends and the like should ideally include a clarification of values, purposes and so on. Whose interests are involved? What is the substantive focus of the work, and why is it this . . . and not that? Who is the work for, and what uses will be made of it?

A further observation which emerges from this review is that too little attention is paid to ideas, traditions, interpretative communities, ways of knowing and worldviews. Table 10 shows how the works discussed above can be related to a four-level model of futures study. Naisbitt, Popcorn, Cetron and Davies all seem to fit snugly into the top category. Coates and the OECD are clearly more problem-



TABLE 11. A POST-CARTESIAN SCIENTIFIC WORLDVIEW (BASED ON GLOBAL VIEW, BIOLOGICAL AND SYSTEMIC LIFE SCIENCES, RATHER THAN INORGANIC, STATIC, EQUILIBRIUM OR MECHANISTIC MODELS)

<b>Principles</b>	
Interconnectedness	at every system level
Redistribution	recycling of all elements and structures
Heterarchy	networks and webs, intercommunication rather than hierarchies; many interactive systems variables; self-organization, autopoiesis, mutual causality
Complementarity	replaces either/or, dichotomous logics and reframes with meta-logics of 'yin-yang' and 'win-win' rather than zero-sum games
Uncertainty	from static, equilibrium, and mechanistic models to probabilistic, morphogenetic, oscillating and cyclic models. Biological view of self-organizing, self-replicating, self-referential living systems
Change	Focus on irreversible phenomena as well as traditional reversible models, evolutionary view, macroscopic time/space, change as fundamental, certainty as limited

Source: Copyright © 1980 Hazel Henderson.

and policy-oriented, but neither has a well developed critical perspective. Feather goes some way towards this, but the management focus and lack of attention to ways of knowing, paradigms etc, constrain his view. Halal verges on the edge (seeing the breakdown much more clearly than the recovery) yet the critical aspects of World 2000 do not appear to have been clearly articulated. Why are these distinctions important?

It must be acknowledged at this point that there are many possible purposes for undertaking a futures study, not all of which must necessarily be 'critical' in outlook or orientation. Different purposes imply different approaches, and pluralism is vital. So I want to resist the temptation to compress the whole rich variety of futures work into the simple spectrum suggested in Table 10. Nevertheless, there is value in *distinguishing* between different approaches and attempting to show what emerges from each of them.

### Role of critical and epistemological futures study

Two works which adopt a critical futures approach are Henderson's *Paradigms in Progress* and the Meadows's recent book *Beyond the Limits*.<sup>20</sup> Both actively consider the role of cultural and knowledge structures in not merely shaping, but also *constructing* our world. For example, Henderson shows how concepts such as GNP and many conventional economic indicators provide false signals to decision makers and complicate the process of recovery. She critiques a range of conventional worldview assumptions and seeks to develop intellectual frameworks which do greater justice to an interwoven global reality. Far from searching out problematic 'megatrends' she is alert for precursors, early signals *at a variety of methodological and interpretative levels*. These enable her to advance a wide range of propositions. They refer not merely to externals, but also to underlying worldview principles and commitments. An example is the six emerging post-Cartesian principles outlined in Table 11. These are used to highlight aspects of a post-Cartesian worldview.

*Beyond the Limits* is perhaps less wide-ranging, but it is useful in other ways. It begins with a lucid account of exponential growth and then considers the nature of planetary limits. It provides at least two essential contributions to the futures

debate. First, it explores the dynamics of growth in a finite world and, in so doing, identifies perhaps the key reason why systematic foresight is so badly needed.

Because of the time it takes for forests to grow, populations to age, pollutants to work their way through the ecosystem, polluted waters to clear, capital plants to depreciate, and people to be educated or retrained, the economic system can't change overnight, even if it gets and acknowledges clear and timely signals that it should do so. *To steer correctly, a system with inherent physical momentum needs to be looking decades ahead.*<sup>21</sup> [My emphasis]

Second, the authors make it abundantly clear that much, much more than markets and technology is needed to deal with the global problematique. Governing and policy making need to be informed by a clear-eyed understanding of the dynamics of a transition to sustainability. A range of human and cultural shifts are also required. Both these books go a long way beyond the simple identification of external trends for marketing or competitive advantage. They are grounded in deeper approaches which recognize systemic defects in the industrial worldview and actively consider ways of dealing with them.

Deeper still are the writers I have called 'epistemological futurists' such as Willis Harman, Morris Berman, Ken Wilber, Jay Ogilvy and Sohail Inayatullah. Not all these would necessarily call themselves futurists. Yet their work contributes enormously to deepening and strengthening the futures enterprise. Why is this? Each in their own way has probed beneath the surface into the underlying foundations of industrialism. Harman has explored the nature and limitations of scientific rationality and proposed a more inclusive view drawing on perennial and transpersonal concerns. Berman has travelled a similar route. His central notion is that of 're-enchantment'—regaining an authentic and sensuous relation with the world and with each other. Wilber has travelled far and wide through the spiritual traditions and practices of humankind. He relates human and cultural development to a long-term transpersonal view that is enormously useful in at least two ways. First, it provides a contrast to more common technocratic, machine-led notions of 'progress'. Second, it outlines options for human futures that decisively transcend the conflicts and compromises of late industrialism. Ogilvy has shown how key theoretical developments in the humanities are important for futures. Inayatullah maps the field on to at least three levels, and questions many of its ethnocentric cultural assumptions.<sup>22</sup>

What these writers have in common, and what they therefore collectively contribute to the futures field as a whole, is substantial. It includes the following.

- a well grounded diagnosis and critique of deficiencies in the Western worldview;
- a more profound view of trends, problems and the grounds of possible solutions;
- a developed awareness of distinct levels of analysis (with different rules on each level) and of contributions from different traditions of enquiry;
- a rationale for rendering new interpretative options into practice;
- overall, a basis for insight, empowerment and long-term futures vision.

Hence, it is clear why such writers change the character of the debate. They are using more powerful conceptual tools, more extensive and demanding intellectual frameworks and more profound material. This is what I was referring to when I suggested that 'I do not believe it is possible to approach the great issues of our time without considering the frameworks of meaning and value which created

TABLE 12. CHANGING IDEAS

*(A) Ideas in decline: aspects of the industrial worldview*

The idea of an *industrial* society  
 The view that nature is merely a thing or a resource  
 The idea of progress and unlimited material growth  
 The view that technologies are inherently neutral  
 The idea of a separate and sovereign nation-state  
 The hegemony of instrumental rationality

*(B) Ideas that are growing or developing: foundations of a new worldview?*

The idea of a sustainable society and qualitative growth  
 The notion of a stewardship ethic; the environment as a community  
 The notion that the future is deeply implicated in the present  
 The 'new science' reflecting an interconnected reality  
 The benefits of systematic foresight  
 The rebirth of the sacred  
 The conservation and revaluing of native peoples and cultures

them in the first place'.<sup>23</sup> It is this crucial, indeed, constitutive layer of social, cultural, interpretative processes that the trend readers have, on the whole, overlooked. Deeper realities tend to be overlooked for one simple reason: they are not amenable to empirical analysis. Metaphorically, they lie 'out of sight' or 'beneath the surface'. Yet it is arguably in these shifting foundations that many such trends have their origins and their ends.

Table 12 shows some ideas which arguably underlie the empirical landscape described above. They outline ideas in decline and several which appear to be growing, or developing. None is wholly discrete or without problematic aspects. Yet, they may be of intrinsically greater interest than empirical observations because they operate at the foundations of our symbol-manipulation, meaning-making and policy-formulation processes.

I cannot claim that these propositions are wholly proven or provable; but for me they speak more of vast and profound changes than accounts of external events or trends. This, then, is my particular choice, my preferred 'layer' of reality. In this context there can be no 'megatrends' for one very good reason: there is no single monolithic interpretation of the world. Much of it is unknown and obscure. Contested sites abound within cultures and in the relations between them. Pluralism reigns. The master-plan withers, along with the blueprint and the surprise-free forecast. In this sense, the very idea of a 'megatrend' harks back to a simpler world. From an epistemological viewpoint, its determined empiricism, 'value-free' outlook and naive optimism place it closer to the 19th century than to the 21st. As such, its usefulness in interpreting the near-term future must be considered highly problematic.

### Instead of 'megatrends'

Despite all such criticisms and caveats, a credible view of the near-term future remains essential. So what does it look like? Despite reservations about the dangers of trend spotting, it is helpful to derive a clear, but broad-brush picture of the next 10-to-20 years from this and related material.<sup>24</sup>

It is, first and foremost, a time 'between eras'. That is, a time when industrial structures, assumptions and institutions have decayed, leaving serious, largely unaddressed questions, at the heart of contemporary Western cultures. This is

partly because, under industrialism, the 'map' of knowledge withered to an untenable fragment which foregrounded instrumental rationality and largely ignored the rest (myth, religion, participation, transcendent knowledge); and partly because too few can yet see the outlines of a new world order.

Yet the signs are there for anyone to consider. I support Coates in this respect—there are signs of a 'deep consensus' appearing in some areas. It has been visible, for example, in the response of the world community to the need to phase out ozone-destroying chemicals. Such threats to the environment are now being taken seriously on the whole. However, the unsatisfactory and irrational functioning of the global economy remains a real stumbling block. The OECD is therefore right to be nervous about the continuing potential for conflict and confrontation in many areas, instead of the economic integration which they seek. Yet this and other organizations appear to pay insufficient attention to the need to redefine growth and overhaul the conventional economics which arguably remains at the heart of the problem.

Some more positive aspects of the near-term future are illustrated in the second part of Table 12. They are not strictly trends so much as interpretations of social and cultural processes. As such, they are grounded in ideas, paradigms and texts as much as they are in external events. For example, the idea of sustainability as a social goal is not one that will go away. However, since it challenges so many aspects of existing social reality, power relations, economics and marketing, there are bound to be numerous conflicts over an extended period. The shift from quantitative and material growth to qualitative and non-material growth will not be easy, but it may progressively occur as human cultures meet global limits and explore other ways of meeting human needs.

While industrialism was built on a utilitarian view of nature, this view has now ceased to be credible. Instead we are seeing the rise of a stewardship ethic and a view of human beings as part of a wider biotic community. If this ethic continues to grow in strength and becomes a standard assumption in the coming century, it will help to transform previously growth-addicted cultures. Reinforcing this is the dawning recognition that 'the future' is no mere abstraction, but a principle of present action which is *constitutive* of the social order. It follows that timeframes are likely to become more flexible and long-term. This, in turn, will encourage the development of inter-generational ethics, and all that this implies.

The 'new science' has turned materialism on its head and made reductionism look quaint. It has reestablished a sense of purpose and significance right at the heart of matter/energy. Quantum mechanics may not necessarily constitute a paradigm for social knowing, social being, but it has certainly established the notion of interconnectedness as a principle of existence. Again, this insight serves to support and augment some of the others mentioned here. An interconnected universe brimming with meaning and significance is no longer the lonely, alienated place portrayed by cynics, existentialists and in the great dystopias. I suspect that this insight alone may one day be seen as a vast source of as-yet unrealized cultural power. On a more practical level, the systematic application of foresight at the social level has hardly begun. Yet the principles and practice of foresight are well understood. If this widely shared human capacity is implemented socially it will help to encourage a much more prudent, wise and, indeed, far-sighted outlook.<sup>25</sup>

The rebirth of the sacred is another development which promises to help transform Western cultures. It is intimately related to the revaluing of non-Western cultures and traditions. The latter are increasingly being seen as no longer peri-

TABLE 13. SIX 'NEGATRENDS' OR WHY THINGS WILL GET HARDER BEFORE THEY GET EASIER

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1. It takes time to identify deficiencies in the Western industrial worldview and put them right
  2. The continuing unsatisfactory operation of the global economy
  3. Failure to resolve the global problematique
  4. Continuing technical innovation creates new dilemmas superimposed on older ones
  5. The ethical basis of late industrial social life remains inadequate and unsustainable
  6. There is inadequate investment in foresight
- 

pheral, but central to the evolution of a truly *post*-industrial civilization. A sense of the sacred, of the cosmic in everyday life, may bring a depth of perception and experience back into societies which had forgotten how rich they may be.

All these can be seen as very positive aspects of the near-term future. They provide plenty of motivation for hope, inspiration, social innovation and policy making. Yet it is also evident that, with serious unresolved problems still embedded in the world system, and with a new worldview barely in its infancy, the next 10-to-20 years will remain challenging to say the least. Therefore, in place of 'megatrends', and as a way of concluding this article, Table 13 offers six 'negatrends' or reasons why I expect things to get harder before they get easier.

The worldview problem has been widely overlooked by mainstream futurists. Yet it powerfully affects the ways in which we see the world (often through unregarded assumptions and taken-for-granted commitments). Yet there is no rulebook for reconstituting a culture. One cannot discard a particular 'structure of consciousness' overnight. Moreover, personal and institutional learning lags slow down the process of cultural innovation. Formal education is very much part of the problem, in part because it remains immersed in the past and has not yet taken up the many concepts, tools and techniques for teaching and learning about futures.

Gross inequalities between nations persist and are worsening in some cases. They appear to be a systemic feature of the global system. Market economies do not have an intrinsic interest in the future, and market signals operate retrospectively. Classical economics excludes the wider world and regards ecological impacts as 'externalities'. Global problems of poverty, environmental deterioration, pollution and loss of genetic diversity also continue to grow. Most people feel that these are too remote to deal with and are outside their world of reference. Governments have short-term, limited agendas, linked to the electoral cycle. So, on the whole, they try to ignore the global problematique. The timeframes of governance and those that apply to global atmospheric and other environmental systems are drastically out of step.

Virtual reality, the human genome project, nanotechnology and so-called artificial intelligence all raise as many new problems as they promise to solve. The notion of 'control' in this context is problematic. Technology is often seen as providing new solutions, but this is a naive view. It tends to be overvalued, while questions of language, meaning and conflicting interests are overlooked. On the whole, Western societies and, indeed, many Western futurists, have yet to decisively wean themselves away from anodyne, machine-led views of futures that are clearly not viable in the long term.

The still powerful (but inadequate) industrial-era ethics of pragmatism, utilitarianism, competitive individualism and the marketing imperative have not, and will not provide a sound basis for individual or social decision making. There is a spiritual vacuum at the heart of industrialized culture which makes it difficult for people or organizations to resolve the perennial concerns of human existence. A

series of substitute satisfactions is readily available, but they merely shove problems out of sight. Yet the human subconscious and spirit are not fooled; they know that a confidence trick is being played. This helps to explain the continuous outpouring of apocalyptic imagery and the largely unnecessary view of the future as a dark, forbidding place. This dilemma provides the cultural and historical grounds for critical and creative futures work, but too few work in these modes.

Finally, as noted, foresight needs to be deployed at the social and organizational levels. But in habitually short-termist, past-oriented cultures, there is little interest in doing so. Hence the savings of successful foresight are denied and the risks of 'overshoot and collapse' beyond critical limits continue to grow.

## Conclusion

One implication to draw from the above is that futures people who identify with different traditions should consider working more closely together. There is no reason why work at the empirical level should not inform and contribute to critical and epistemological work, and *vice versa*. Indeed, it is likely that any coherent and credible account of the near-term future will necessarily integrate a variety of insights from many sources.

The above account portrays a range of forces interacting on several levels. It suggests a way of handling complexity in the forward view which captures some features and qualities of the time without giving a prior default status to empiricism. A more adequate approach may be derived from at least three levels of futures work (problem-oriented, critical and epistemological), three futures traditions (the empirical/analytic, critical/interpretative and activist/visionary) and a range of cultures, particularly non-Western ones. This is *necessarily* a pluralistic enterprise, one in which no privileged group would be willing or able to read its favoured prescriptions on a passive and grateful world.

Another conclusion is that, while there may be 'light at the end of the tunnel' (through a reconstructed worldview), many of the trends, policies, outlooks and modes of understanding which presently frame the near-term future, do not inspire confidence. It is therefore appropriate for futurists to resist what, by now, are clearly untenable accounts of Western-style progress and development. Although this may have been the dominant historical trajectory over the past 200 or so years, it is clearly not a viable path into the 21st century. Yet it is also clear that the means to empower a real 'change of direction' and to work towards a wise, long-sighted culture are readily available. The inclusion of 'transcendent values' in World 2000 may be a precursor to this process.

For some time I have argued that the notion of 'future shock' embodied a serious mistake: it wrote people into an untenable script that had them disoriented and disabled by 'the future'—and hence ideal targets for the marketing of instant insight. I still hold to this view. The idea of 'megatrends' falls into a similar category. It may have started as an attempt to highlight some unexceptional corporate analysis; but it has become a source of mystification, an embarrassment.

Perhaps the best response is actually to *accept* Naisbitt's unconvincing disclaimer (that his work is merely intended as a starting point) and then quickly move on. In part, this may mean creating a rich variety of evolving pictures of the near-term future, each embodying different cognitive, social, economic and cultural interests. The worst thing possible is uncritically to utilize 'off-the-shelf' accounts as a default standard. Yet if my reading of associated literature is accurate, this is

exactly what has happened. Depending on how one views the matter, the result is a marketing bonanza or a critical nightmare.<sup>26</sup>

However, if we accept that no single authoritative account of the world is possible, it follows that individuals and organizations would be better served by custom-designing their own trend-analysis program—that is, building up their own environmental scanning system, developing their own interpretative criteria, creating their own models and deriving their own views of the dynamics of change.

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4. *Ibid*, page 5.
5. *Ibid*, page 288.
6. D. Meadows *et al*, *Beyond the Limits* (London, Earthscan, 1992).
7. M. Marien (editor), *Future Survey Annual* (Bethesda, MD, World Future Society, 1991), page 2.
8. A flyer for *John Naisbitt's Trend Letter* recently offered '223 hot, new amazing future business trends for the 1990s ... incredible \$200 value publication reveals fascinating new business opportunities ... yours free with subscription'. It added that 'almost everything he said in MEGATRENDS has now become TRUE!', and made the link with the marketing imperative explicit by claiming that 'our amazing advance business forecast newsletter will be your indispensable personal and business intelligence tool ... to keep you abreast of what will happen out there ... and how you can make BIG money'.
9. F. Popcorn, *The Popcorn Report* (Sydney, Random House, 1991), page 25.
10. M. Cetron and O. Davies, 'Trends shaping the world', *The Futurist*, 25(5), September–October 1991, pages 11–21.
11. J. Coates, 'Factors shaping and shaped by the environment: 1990–2010', *Futures Research Quarterly*, 7(3), Fall 1991, pages 5–55.
12. *Long-term Prospects for the World Economy* (Paris, OECD Forum for the Future, 1992).
13. See Meadows *et al*, *op cit*, reference 6; and H. Henderson, *Paradigms in Progress* (Indianapolis, IN, Knowledge Systems Inc, 1991).
14. F. Feather, *G-Forces: Reinventing the World. The 35 Global Forces Restructuring Our Future* (Toronto, Summerhill Press, 1989).
15. The failure of information technology to live up to expectations is authoritatively described in T. Forester, 'Megatrends or megamistakes? Whatever happened to the information society?', *The Information Society*, 8(1), 1992, pages 133–146. He comments that 'the truth is that society has not changed very much. The microchip has had much less social impact than almost everyone had predicted. All the talk of future shocks, third waves, Megatrends and post-industrial societies must now be taken with a large pinch of salt'. (page 134)
16. W. Halal, 'World 2000. An international planning dialogue to help shape the new global system', *Futures*, 25(1), 1993, pages 5–21.
17. *Ibid*, page 12.
18. *Ibid*, page 16.
19. See L. Brown *et al*, *Vital Signs 1992: The Trends That Are Shaping Our Future* (New York, Norton, 1992). Also, J. Dator, 'Surfing the tsunamis of change', *Proceedings of the Symposium 'Construction Beyond 2000'* (Espoo, Finland, 1993).
20. See Meadows *et al*, *op cit*, reference 6; Henderson, *op cit*, reference 13.
21. Meadows *et al*, *op cit*, reference 6, page 137.
22. W. Harman, *Global Mind Change* (Indianapolis, Knowledge Systems Inc, 1988); M. Berman, *The Re-enchantment of the World* (New York, Cornell University Press, 1981); K. Wilber, *Eye to Eye: the Quest for the New Paradigm* (New York, Anchor/Doubleday, 1983); J. Ogilvy, 'Future studies and the human sciences: the case for normative scenarios', *Futures Research Quarterly*, 8(2), Summer 1992, pages 5–65; S. Inayatullah, 'Deconstructing and reconstructing the future', *Futures*, 22(2), March 1990, pages 115–141.
23. R. Slaughter, 'Probing beneath the surface: review of a decade's futures work', *Futures*, 21(5), October 1989, pages 447–465.
24. For a more detailed account in relation to education, see H. Beare and R. Slaughter, *Education for the 21st Century* (London, Routledge, 1993).
25. See R. Slaughter, *The Foresight Principle: Cultural Recovery in the 21st Century* (London, Adamantine Press, forthcoming 1994).
26. See reference 8.