



Addressing Tipping Points for a Precarious Future

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(p.xiii) Foreword

'Tipping points' mean different things to different people. Most of them with their implications are well explored in this book. For me a tipping point is when an accumulation of small or even big changes suddenly causes a critical change. Usually we cannot identify a tipping point until we have passed it.

One of the best demonstrations of tipping points is in the behaviour of ecosystems. Within the infinite complexity of living systems in which different organisms depend on each other, one break in the chain or tipping point can bring rapid change to the others linked within it. For some this means disaster; for others it means rapid, perhaps favourable, change within a new chain. This is part of the phenomenon of life.

We can see this in the history of the human animal. Tribes, cities, and societies can rapidly crash or flourish. As ever, the tipping point could not have been foreseen. Usually it was a combination of unusual circumstances. Changes in patterns of rainfall came together with social and economic difficulties to bring about the collapse of classic Maya society. The Black Death coincided with the beginnings of the Little Ice Age to transform mediaeval society. A new merchant elite was able to tip over the monarchies of King Charles I and later King James II, and thereby create the circumstances of the industrial revolution in the following century.

We are certainly in turbulent times today. Our current epoch has been labelled 'the Anthropocene' by many geologists: it marks the period since the industrial revolution in which the human species has vastly increased its numbers; exploited the natural, often irreplaceable resources of the Earth; upset longstanding ecosystems, thereby destroying countless other species; and changed the chemistry of the land, sea, and air of the Earth in ways we have yet to understand. For example, we can observe the current **(p.xiv)** destabilization of climate with prospects for global warming, but can only guess at the consequences for future distribution of water and new means for producing the energy which drives our society. Whereas in the past the rise and fall of civilizations was something regional and distinct, we are now more interconnected than ever before, and as the present economic crisis demonstrates, what happens in one place immediately affects what happens in others.

So what, if anything, can we do about all this? Can we discern future tipping points? Which ways could they tip us? It is fair to say that the conventional wisdom, which has led us to where we

are, is under increasing challenge. Some politicians may still call for more respect for market forces, and argue about the effects of inflation or deflation, the supply of money, and the need for growth, however defined. But others are painfully aware of the wider issues: concern for the environment in all its aspects, our unhealthy dependence on certain technologies, including being locked into old ones, and human prospects in general. Are we measuring the right things in the right way, in particular our wealth, health, and happiness? Are our brains changing so that we see things in pictures rather than think in words? Can we still see the wood for the trees? Does globalization of society imply loss of local identity, or – worse – a return to nationalisms and local rivalries, with lethal struggles over resources?

No one knows the answers. But it is clearer than ever that we need to work globally, and above all identify the common interest in tackling the problems of the Anthropocene. This may require an assembly of regional interests, so-called ‘pluralities’, within a global framework, which reflect the current changes in the balance of power. Change usually comes about for three main reasons: leadership from those who effectively run our society; pressure from ordinary people through the means at their disposal; and occasionally from what I call ‘benign catastrophes’, when something goes visibly and attributably wrong and thereby illustrates the need for action. These will be the vital tipping points.

Above all we need to think differently. Only then will we be able to act differently.

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