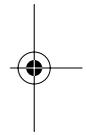


3 – Inequality and conflict

Colin Butler

Darwin's concept of fitness implies inequalities and competition as the main drivers of the evolutionary process. Yet cooperation within and between species is essential to achieve stable societies, a process which is supported by complexity theory. Over recent years there have been increasing inequalities in access to economic and natural resources between and within industrialised and developing countries. Recognition of these disparities by the dispossessed, combined with resource depletion and population growth, promote ethnic and religious discord and violence that can only exacerbate the situation. Achievement of peace and sustainability for our precarious world will require a revolutionary change away from denial and towards widespread consideration of carrying capacity and inequality, rather than aggravating instability through policies embodied in the so-called 'War on Terror'. This will entail an ideological shift from competition towards cooperation.

Inequality characterises many human and non-human systems. It can never be eliminated, but this does not necessarily mean inequality is evil, immoral or wrong. Some inequality – probably a substantial degree – is required to provide incentives, make rewards meaningful and to optimise production, including of many public goods. Having less than others is not necessarily wrong in itself, even morally, particularly if the wider system allows prospects of individual improvement and reward for effort. However, beyond thresholds of excessive inequality is a moral, economic and political problem. Imagine a banquet in which a small number of gluttons are waited upon by a large number of enslaved but half-starved attendants. Outside, equally starved troops guard the hall. Most people would react to this fantastic situation not only with revulsion but also with incredulity; a moment's thought would suggest the situation is unstable, if not through poisoning then through an organised revolt by the waiters and troops. It is likely that





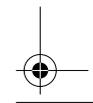
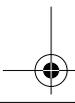
after this revolt another unequal society would form, but one which would be – even if only slightly – less unequal.

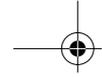
The extent of inequality in any system; including human society, is *always* limited. Like most phenomena, the degree of inequality fluctuates and at times will become sub-optimal – either too equal or too unequal. Nonetheless, mechanisms exist to constrain this oscillation within limits. Within human societies, these checks and balances include reputation, rebellion and mutual gains from cooperation (Wright 2000).

With hindsight, the French Revolution has an air of inevitability due to the excesses of Mary Antoinette's court, which are still a part of folk memory after more than two centuries. On the other hand, the system of democracy and free enterprise that characterised the US during the 20th century undoubtedly contributed to that country's economic ascendancy, combined with its access to vast natural resources. At the same time, the stifling of freedom in the former Soviet Union constrained that economy's growth, in part because of reduced domestic inequality. Adam Smith, a father of modern economics, commented on how the lack of property rights in Turkey stifled that country's growth – there being so little protection for individuals who showed initiative and enterprise that enterprise went unrewarded. But Smith also warned against the equally stifling effects of monopolies, which if left untouched could function like a despotic ruler.

Today we live in an interconnected world. Many of the goods we use, much of the food we eat, and all of the air that we breathe has been produced, grown, or modified by people and economies from all over the planet. This matters for inequality. Long ago, the poor in our society lived in our proximity. A combination of compassion, shame and fear restricted the degree to which the wealthy could oppress or ignore the poor. Later, the emergence, in many countries, of a free press and of the vote further guaranteed that the poor could not fall too far behind the wealthy. But now, in our globalised world, most of the poor live out of sight, and usually out of mind. These people – of whom there are literally billions – may be peasants in sub-Saharan Africa, flood refugees in Bangladesh, or tribal people in Paraguay. We know little of them; they know little of us. Yet increasingly we are connected, not only economically, but through gradually tightening information chains.

Of course, these economic connections are indirect. The poorest people in Bangladesh are unlikely to be working in the textile factory that may have



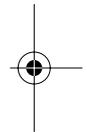


made your shirt, but the *comparatively* comfortable living standards of the workers in a Dhaka factory may depend, through only a few more steps, upon the poverty of that person. We are all part of a vast economic food chain. I, the writer, and you, the reader, live towards the top of this pyramid, though we are only dimly aware of the apex above us. Way below us there lives the textile worker – yet her fingers may have touched my shirt. And only a few rungs below her there live people who are truly in abject poverty, experiencing extremely restricted, vulnerable and powerless lives.

This economic pyramid has been growing in size and height for centuries. Today the magnitude of inequality in the global system is unprecedented, and it is breathtaking. Five hundred years ago, kings were still prone to diseases that are today easily curable, though they were probably always spared from hunger. Today, despite our knowledge of vaccines, antibiotics, education, and our vast *collective* wealth, hundreds of millions of people continue to miss out, in ways that would be regarded as totally unacceptable if they were either more visible, or more organised and threatening.

Of course, there are complex reasons for inequality, and many causes are far from tractable. But, for a few decades, especially after World War II, substantial progress was made in making the world fairer. A combination of enlightened self-interest, idealism, new technologies and Cold War competition saw vast improvements in the living conditions in many parts of the Third World. Life expectancies rose dramatically, roads were built, literacy increased and birth rates fell quickly. The Green Revolution assuaged the fears of famine that had risen to prominence in the 1960s.

Sometime around 1980 much of this progress petered out. The reasons for this include economic shifts in the West, as stagflation and an overly trusting Western population allowed the installation of policies that placed a greater emphasis upon individual than collective goods. Originally these policies were proclaimed as the new, smart, way to *reduce* inequality and to improve public goods, both nationally and globally. The wisdom of the market was alleged to automatically result in greater total wealth, which would result in a beneficial 'trickle down' effect, reaching not only our own poor, but also the poor in the Third World. Consequently, it was considered rational and humane to slash foreign aid and reduce subsidies that lowered the costs of Third World schooling and health care. We were assured this would accelerate development.





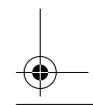
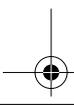
Two decades on, global inequality has substantially clearly increased (Krugman 2002) and foreign aid from Western societies remains low and, despite a few valiant rearguard actions, unfashionable. In some cases – especially in China and East Asia, where human fertility was already low and where a great emphasis continued to be placed upon education – economic takeoff was achieved. Although China, in particular, has vast environmental problems it stands a good chance of continued lift-off, even if climate change increasingly bites.

But in much of sub-Saharan Africa the application of these new policies has been truly catastrophic. Populations in a host of African countries have experienced massive declines in life expectancy, deepened food insecurity, appalling governance, and periodic and barbaric conflict. South Asia is also not out of the woods. Two countries rich enough to bear nuclear arms – India and Pakistan – also contain populations with substantial hunger, high maternal and child mortality rates, regional political instability and patchy governance. They also still have worryingly high birth rates and high inequality.

Brazil – a land of kidnappings, excess, gated communities and past contemporary slavery (Bales 1999) – is often considered to house the most unequal single national economy. In parts of Sao Paulo, Brazil's largest city, a new caste is arising, where security guards employed in the gated communities need to demonstrate that their *parents* have a clean police record. Now, a Left-leaning government has been elected, and inequality is likely to fall, bettering Brazil's long-term prospects.

If the world were a single country, its inequality would make Brazil look fairly egalitarian. This is true no matter how inequality is measured. A currency known as international dollars which adjusts for purchasing power increases the income of the poor in developing countries. <this implies that they are therefore not as unequal as thought; was this the intention of the sentence?> If inequality is measured using an internationally traded currency, such as US dollars, inequality is even more pronounced (Butler 2000). A vigorous debate rages in academic circles over the virtues and failings of these competing measures of inequality, yet neither side disputes the central fact that global inequality between countries exceeds that which exists inside any nation (Wade 2004).

Debate also rages over the extent to which inequality matters. Defenders of high inequality argue that a rising tide lifts all boats, and that as long as real wages and living conditions improve for the poor it is irrelevant if they





fall even further behind. This argument reflects ignorance of human nature. Increasingly, it also reflects ignorance of the facts; in many ways the tide is now receding for the global poor, who number in the hundreds of millions. Nonetheless, rebellion by the poor against global oppression depends upon more than the degree of inequality; it also depends upon the poor having means and opportunity.

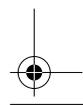
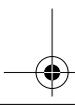
But what has this got to do with sustainability? A great deal.

Limits to inequality

Cooperation and competition pervade human society. Although recent economic theories have tended to emphasise the virtue of competition, society is unimaginable without cooperation, such as for hunting and baby-sitting (even by non-relatives). The extreme position: that humans will invariably try to maximise their own wealth with little regard for others has been described as 'homo economicus', and was illustrated in the film *Wall Street*, which made 'greed is good' a household phrase. This position has little basis. Human societies display far more reciprocity and cooperation than greed and selfishness.

Reciprocity glues families, societies, and even markets, where buyers exchange cash for goods; if buyers feel cheated they will turn elsewhere. Reciprocity is often indirect. This may occur between individuals, families, and states. Consider the story of the old professor, who, when asked why she attended so many funerals, explained '... otherwise, no one will come to mine'. In this case, her act of courtesy cannot be returned by her recipients; she is instead relying upon indirect reciprocity. In the salmon-rich (and slave-holding) cultures of what is now called British Columbia, Amerindian societies held competitive potlaches – spectacular displays of wealth and generosity. These were expected to be reciprocated at an unspecified time, perhaps by the next generation.

Reciprocity, both direct and indirect, also characterises international relations. The Australian commitment of troops to both Gulf Wars can be considered as partial repayment for American assistance in World War II, as well as a down payment for future protection. By its alliance with a great power, Australia feels safer, purchasing short-term security. However understandable, this reciprocity suggests that Australia has internalised neither the reality of globalisation nor the threat of unsustainability. The lifestyle of





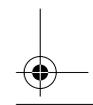
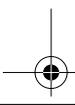
both the US and Australia is contributing to the erosion of sustainability as well as to increased resentment, including within our region.

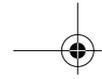
Not everyone is a reciprocator. Free riders – individuals who seek to benefit from the work of others without proportional reciprocation – are also common, though even free riders must reciprocate within subcultures. Free riders are often humiliated and vilified, and this signal provides a useful mechanism to reinforce cooperative behaviour by the majority (Bowles & Gintis 2002).

Reciprocity, both direct and indirect, forms the basis of all systems of morality (Nowak & Sigmund 2000). Rewards and punishment for good and bad behaviour are not just integral to Judaeo-Christian faiths but also to Hinduism and Buddhism. Reciprocating (whether a favour for a favour or an eye for an eye) contributes to a reputation. In the smaller communities from which modern civilisation has evolved, reputation can be considered as a naturally selected favoured mechanism to limit inequality. Reputation is a form of public information encapsulating myriad acts, not only by individuals but also by families, tribes and nations. Reputation provides a means by which strangers can penalise and reward past behaviour. A good reputation is a kind of passport, smoothing transactions with strangers. On the other hand, a poor reputation is like travelling in a car with a flat tyre. People are suspicious, unhelpful and sometimes hostile.

Groups also acquire reputations, but sometimes these may be undeserved. The reputation of the 'other' often acts as a barrier, reducing both cooperation and contact. This is especially obvious between groups with different languages, religions, customs and socio-economic status. Adverse reputation easily merges with caricature, prejudice and racism, and this can help to generate and sustain a self-fulfilling 'lock-in' where both sides hold extreme positions about the other, often over generations. Prejudice is likely to reduce contact between individuals in the characterised groups, leading to more segregation, and even fewer opportunities to weaken that prejudice.

At the same time, the shared customs and practices that may be regarded by outsiders as justifying contempt and prejudice (such as beef eating may appear to some Hindus) can foster and nurture support and cooperation within subgroups. Shared dress and slang may express solidarity, and, sometimes, nascent opposition against majorities perceived as oppressive. In France the dominant culture recently banned the wearing to school of headscarves by Muslim schoolgirls. It remains to be seen whether this will lead to





more or less integration of Muslims among French society. It could easily lead to greater lock-in and more mutual resentment, unless parallel efforts are made to increase opportunities for Muslims to genuinely participate within French society.

In a small village the reputation of an individual is probably fairly accurate, though the reputation of *groups* (such as untouchables in India) may reflect the distribution of power and influence within that society, rather than impartial judgement.

In the global village, however, reputation is increasingly manipulated, whether by propaganda or public relations. This relatively new phenomenon threatens the utility <utility for what?> of this ancient social mechanism. The deliberate and large-scale manipulation of information, including of reputation, also threatens sustainability (Beder 1998) <please provide an example of how this happens>.

Justice, rebellions, and the war on terror

One person's 'inequity' is often another's 'justice'. Convicts were once transported to Australia in a time when the Antipodes must have seemed to the poor almost as remote as Mars does today, for crimes as trivial as the theft of a sheep. This justice may have seemed unfair, or inequitable to the individuals and families affected but was acceptable to many including, crucially, those with the greatest political power. This plasticity of justice is relevant to both the war on the terror and to sustainability.

Evidence for the generally suppressed longing by the poor for greater equality can be traced in European history through the durable legend of Robin Hood, loved by the poor for his redistributive efforts, and before that, to the Arthurian legend of a round table, where no knight had precedence. The Magna Carta, in which King John was forced to accede some rights to his nobles, also illustrates an early step in reducing British inequality. In the long march towards greater equality in Britain, force was often applied (by either side), but at other times the use of force was averted, because rational calculation suggested an overwhelming victory.

Most commonly, force was averted by the poor because it was abundantly clear that the means to guarantee success were deficient. But at certain favourable times, physical expressions of the desire to seek a fairer society were able to extend far towards the base of the economic pyramid. At a few times the poor could ask, like *Oliver Twist*, for more without expecting to

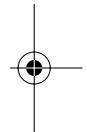




receive instant and brutal repression in exchange. Prior to the Black Death, for instance, serfs were so controlled that they were required to keep their hair short as a visible mark of servility. But after the Black Death, especially in Western Europe, the bargaining position of the peasants increased substantially as the resulting shortage of labour improved their real wages.

One of the most famous peasant revolts was led by Wat Tyler, who marched upon London in 1381, soon after the Black Death. Initially the court was willing to negotiate with Tyler's men, but when the balance of power shifted slightly Tyler was promptly murdered. Nevertheless, within only a few more generations, serfs throughout Western Europe were liberated. By the time of the English revolution, in the mid-17th century, a group called 'the Levellers' were openly campaigning for ideals now recognisable as socialism. In the 19th century, it was the turn of the Chartists, who demanded an enlargement of the vote for men. Then came the suffragettes; gradually the franchise was widened to all adults in Britain.

It is not that the Black Death, the English revolution or the relative prosperity of the working class in Victorian times led to a greater desire by the poor for more equality, but instead that a slight relaxation in oppression allowed greater freedom to *express* this desire. In the lands that came to be known as the Third World soon after World War II, the period of decolonisation also permitted more open demands for freedom.

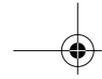


Global terrorism and its connections to unsustainability

The events of September 11, together with a host of less spectacular terrorist attacks, have come to define the new millennium. Writing in the *New York Times*, Thomas Friedman (Friedman 2004) claimed that the threat to civilisation represented by terrorists constitutes the third great totalitarian challenge to open societies in the last 100 years. Might it be possible that the massive increase in global inequality that has occurred in recent decades – together with increased means, opportunity and understanding by the poor of the immensity of inequality – has fomented the terrorism against which wealthy and powerful governments have declared war (Rogers 2000)?

Of course, very few representatives of privileged populations accept this analysis, including the Australian Government. For example, Friedman asserted that the attack on the US in September 2001 was purely one of Islamic totalitarians trying to impose their will. But like most Western analysts of the war on terror, Friedman evinces little regard for the possibility





that deeper causes may underlie the concerted attack on relatively powerful and privileged populations, now well under way.

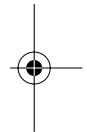
Naturally, terrorists are denounced by the comparatively privileged populations that they threaten. Such unilateral views are typical of winners, who in most cultures inherit histories written to support, and belief systems designed to justify, the status quo. The US itself emerged as a separate nation only after rising against Britain, the great power of the 18th century. Within the 13 colonies that created the United States this revolution was widely perceived as just. However, a different view was certainly held in London.

Now in the 21st century, the US and its allies, include Australia, preside over and materially benefit from an economic and cultural empire that in some ways is comparable to that of the British in the 18th century, including a sense of manifest destiny and cultural superiority. For example, this empire, to which the privileged classes in China and India are now being admitted, consumes the vast majority of fossil fuel and is thus mostly responsible for the enhanced greenhouse effect. While some parts of the empire, especially in Europe, are concerned about climate change, official policy in both the US and Australia appears contemptuous, not only of the danger of climate change, but also of the case for populations in developing countries to emit more carbon, in order to develop. This contempt for developing countries is evident in the refusal of Australia and the US to ratify the Kyoto Protocol, arguing that it lets developing countries evade their responsibilities.

This empire also has an almost complete monopoly on the possession of weapons of mass destruction. In his 2004 State of the Union Address, US President George W. Bush accurately described nuclear weapons as instruments of mass murder. A careful listener would not imagine, from either the tone or context of his words, that the US possesses thousands of these weapons.

The arrogance and hypocrisy of this empire, regarding global inequality, climate change and who should possess weapons of mass destruction is scarcely visible within the empire, yet they are as obvious and inflammatory to the people characterised as terrorists and barbarians outside it as were the excesses of Marie Antoinette's court to the French peasants.

A more thoughtful path to understand and to investigate the root causes of terrorism seemed briefly possible. At the World Economic Forum, held in sympathy in New York soon after September 11, 2001, a wide array of commentators, from Bill Clinton to the managing director of the International Monetary Fund, argued that global inequality was a key factor in the





emergence of global terrorism. Financier George Soros said '... the asymmetric threat from people who find the world in which they live in to be unacceptable means that terrorism and anti-globalisation violence can become manifestations of this frustration'. Bill Gates said '... people who feel the world is tilted against them will spawn the kind of hatred that is very dangerous for all of us'.

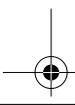
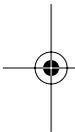
Today, only occasional rays of light penetrate this draped window. Conservative commentators and governments generally ignore the link between terrorism and inequality, or, if pressed, dispute it, pointing out, for example that Osama Bin Laden is very wealthy, and that most of the hijackers on September 11 were comfortably off. This interpretation reveals both a lack of historical understanding of previous revolutions, and little insight into how complex systems operate (Waldrop 1992).

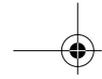
Complex systems, inequality and emergence

Complex systems theory is a recently developed field of study that examines the interactions between the myriad elements of many systems, in ways which lead to self-organisation. In other words, complexity theory suggests that fairly simple rules of thumb can sometimes lead to phenomena that would appear, to the naïve observer, as unbelievably complicated and implausible. A classic example is a bee or ant's nest. Obviously, no single insect, including the queen, possesses the neural capacity to plan, construct and maintain a hive, yet the collective behaviour of millions of individuals leads, effortlessly, to a functioning, self-organised system. Some have suggested that life itself may be a self-organising phenomenon, inevitable when sufficient precursor molecules exist. Lovelock has famously suggested that the biosphere may also self-regulate (Lovelock 1988).

Complexity theory has, as yet, been little explored by social theorists, although recent work has analysed phenomena such as standing ovations, Mexican waves, job finding, and some fads and fashions as resulting from 'information cascades' which lead to either the fading or emergence of altered social states (such as the popularity of a hula hoop, whether to take a holiday in Tasmania and the offer of a job) (Miller & Page 2004). This theory gives insight into phenomena such as formal and informal social norms, but has not yet been applied to the emergence of revolts and revolutions.

Despite the lack of a supporting scientific literature, it is likely that many other social phenomena, including revolts, religious cults and genocides



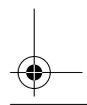
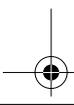
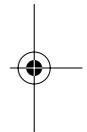


also illustrate key elements of complexity theory. It is plausible that revolts are an emergent, balancing mechanism operating to reduce inequality whenever it becomes excessive, triggered by motivation, opportunity, and a reasonable shot of success. Charismatic leaders may help initiate revolts, but self-organisation theory downplays the importance of individuals. Instead it argues that in favourable conditions many moderately well-suited individuals may catalyse effects made likely by causal factors of far more weight than any one person.

The attacks on the Pentagon and the Twin Towers in September 2001 can thus be viewed as an emergent phenomenon, arising through information cascades, and occurring in response to the reality and – importantly – the *perception* of global inequality. Removing individual terrorist cells in response is therefore unlikely to be successful, because it does nothing to solve the root causes. The current ‘War on Terror’ may even generate more terrorism over the medium term, including by diverting resources away from the Millennium Development Goals and strategies to ameliorate global climate change. These goals, announced soon before 11 September 2001, relate to quantitative targets to improve many aspects of Third World development, including education, health care and global nutrition (United Nations Development Program 2001). They were intended to represent a renewed assault on global inequality to herald the new century. Their erosion will exacerbate global inequality. Climate change is also likely to exacerbate inequality, particularly through its unequal impact upon food production (McMichael & Butler, submitted).

Why is there a denial about limits?

Economists and evolutionary theorists know that resources are always limited. There is almost universal acknowledgement that the population size of non-human species is restricted by a balance between resources, competitors and predators. There is experimental evidence that non-human species behave in ways that suggest a comprehension of limits. For example, experimenters manipulated the nest sizes of a bird called the collared flycatcher. They concluded that the nesting decisions of these birds were in part determined by knowledge (a form of public information) of their neighbours’ reproductive success. Where eggs were plentiful, settlement was increased. But if the hatchlings were scrawny, naïve birds were more likely to go elsewhere. Moreover, evidence suggested that the conditioning of the birds





influenced their tolerance of hardship. Birds reared in an artificially impoverished area were more likely to put up with such conditions, whereas birds more familiar with abundance were more likely to reject settlement in overpopulated areas (Withgott 2002).

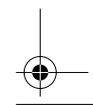
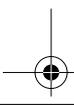
Yet, few mainstream demographers and economists recognise that the concept of human carrying capacity is meaningful (McMichael, Butler *et al.* 2003). This is despite the recognition by economists that scarcity is a fundamental characteristic of society. The extreme form of this disconnection by some academic disciplines with physical reality can be caricatured as the 'cornucopian enchantment' – the idea that in an information-based, post-material economy sufficient goods and services can be created in which the wants of an almost infinitely sized population can be satisfied.

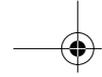
Such an idea is absurd. The global cake is large and has, in the last two centuries, been greatly increased by human ingenuity, technology and cheap energy. Predators and most competitors for humans have been almost eliminated, apart from *other* members of our species. Many people receive only crumbs from this large cake, and most influential economists, trained by and loyal to the dominant power structure, urge that recent policies be intensified.

'Star Trek'-inspired futures of universal abundance are likely to remain elusive, and even though the percentage of malnourished people is reported to have fallen, the absolute number of macro and micro-nutrient deficient people alive today exceeds that of the *entire* global population a century ago (Food and Agriculture Organisation 2002).

Political instability, corruption, poor governance, and terrorism have a complex relationship with scarcity. It is striking how often resource-scarcity and inequality are overlooked as fundamental drivers of human conflict. Instead, it is often argued that sufficient resources and ingenuity exist, regionally and globally, to eliminate conflict and to generate 'wealth for all'. This argument leads to suggestions that the failure to achieve peace is primarily because of the irresponsible behaviour of political leaders.

In reality, limited environmental and human resources are important drivers of conflict and poor governance. This is particularly clear in many parts of Africa and the Middle East. Most proxy conflicts of the Cold War also concerned the control of resources, such as oil in Indonesia and minerals in the Congo. Religious and ethnic conflicts are usually also confounded by differences, real and perceived, in access to resources such as water, land, education and employment.





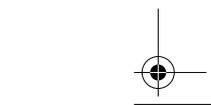
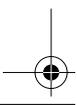
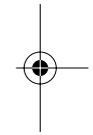
Limited resources and the still rapidly growing global population are also factors that underlie the global war on terror. More recently, the US and her allies have repeatedly denied that control of Iraq's vast oil resources is even a minor consideration for occupation of that country. This denial is untenable. The alternative explanations for the 2003 invasion of Iraq are insufficient to explain the magnitude of human life and materials that the US and her allies have invested in the war and occupation. Numerous despots, some of them US allies, have both histories and futures of gruesome human rights abuses, far larger in scale than that of Saddam Hussein and Iraq. Weapons of mass destruction are possessed by many nations, but most are members of, or allies with, the coalition of the willing that invaded Iraq. On the other hand, the Western addiction to cheap oil is undeniable, while the increasing instability in Saudi Arabia, fanned by Al Qaeda, provides a powerful motive to reduce Western dependency on Saudi oil.

It is conceivable that the US has a genuine desire to foster democracy within Iraq, because a democratic Iraq may be perceived as enabling greater long-term access by the US to Middle Eastern oil. This could also lead to more independence from Saudi oil. Unfortunately, the allied strategy to foster such a democracy in Iraq over such a short period is likely to fail.

Struggle between and within species – including humans – will always occur. Peace, therefore, will always be fragile. Human ingenuity has dramatically increased global human carrying capacity, by means such as agriculture, refrigerators, transport, trade and credit systems. Cooperation and competition have both been instrumental in this struggle. However, the larger size of cake that humanity can now collectively extract from the global environment has not eliminated disputes over how it should be divided. The human population has also increased, as have human expectations, along with the means of powerful populations to appropriate resources from less powerful groups. And, even if the human population was stable in size, such disputes would continue, though perhaps with less menace than the near future seems to harbour.

The limits to increasing inequality as a defensive measure

Although rarely stated explicitly, the conduct of many comparatively privileged groups, including many states and alliances, reflects a view that the best way to ensure security against a threatening and resentful outside force is to *intensify* inequality. This strategy holds whether between palace and





commoner, gated community and slum, or nation and enemy. The strategy is ancient, plausible and often rational, over the short term. It buys time. Yet, at repeated scales and different times, excessive inequality has proven a poor strategy for wealthy individuals and populations.

Attempting to improve security by increasing inequality is limited. Eventually, it will provoke opposition, resentment, and when circumstances allow, hatred, resistance and attack. It also incurs tremendous opportunity and transaction costs, as evidenced in the current war on terror through security, travel restrictions, and anxiety. Eventually it must become rational to *reduce* inequality. Yet this too incurs risks, especially if residual resentment remains high.

Excessive inequality does more than increase the risk of revolution and terrorism. It also erodes sustainability by widening the separation between decision-makers and the adverse effects that their decisions hold for poor and powerless populations. What is important is a greater degree of *global* democracy, so that wealthy populations become more accountable for the adverse effects that their decisions cause. For example, decision-makers would be far more likely to reduce fossil fuel consumption if they knew that they and their descendants had to live on a low-lying Pacific Island, at risk of drowning because of climate change.

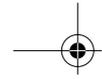
Conclusion

The World Scientists' 'Call for Action' signed by over 110 Nobel Prize winners (Union of Concerned Scientists 1997) lamented the 'woefully inadequate' progress made in response to the World Scientist's Warning to Humanity, made in 1992. This earlier warning argued that

... human beings and the natural world are on a collision course ... If not checked, many of our current practices put at serious risk the future that we wish for human society ... Fundamental changes are urgent if we are to avoid the collision our present course will bring about.

It also prophesied that '... no nation can escape from conflicts over increasingly scarce resources.'

Einstein warned that the atomic bomb necessitated new ways of thinking if we are to avoid unparalleled catastrophe. The confluence of weapons of



mass destruction with the increasing willingness of young people to violently sacrifice themselves in attacks aimed at populations perceived as excessively privileged and indifferent means, at the least, a highly uncertain future for civilisation.

The nuclear brinkmanship of the Cold War is being replaced by a less defined but equally intractable threat. Ahead, climate change, ecosystem degradation, and continuing population growth are likely to exacerbate resource scarcity, thus increasing the potential for violent conflict. Unpalatable as contemplation of this future is, the best hope for civilisation lies in openly confronting these challenges. Facing up to the reality and limits of carrying capacity, and the risk of inequality to *privileged* as well as impoverished populations appears deeply threatening to political and economic elites. The intensity of this denial is intriguing. Although military and political strategists may have cogent reasons for the suppression of discussion of these matters they cannot deny that humanity is now in a precarious state.

Australia is an island, but its sustainability depends upon many international phenomena, both social and environmental. Though contested, the emergence of global terrorism is a plausible response to the perception and reality of excessive global inequality. Terrorism threatens to unravel the sustainability transition by destroying infrastructure, eroding trust and its numerous opportunity costs. The current response to terrorism threatens to generate a 'fortress world', in which bunkers of good governance and prosperity huddle against an increasingly lawless, hostile and barbarous outside.

Globalisation means that it is increasingly meaningful to analyse the world as a linked, interdependent economic, political and strategic unit. This means that, unlike one hundred years ago, poverty in the back blocks of Afghanistan, Nigeria and the Solomon Islands has widespread strategic as well as humanitarian significance. This world, awash with resentment, maldistribution, and weapons of mass destruction requires a clearer discussion of the root causes of conflict to avoid calamity. Military conflict threatens to undermine sustainable development, and is also more likely to occur as a consequence of approaching environmental limits, whether manifest as oil shortages, regional food scarcity because of climate change, or a shortage of well-watered, fertile soil.

Open consideration of carrying capacity and inequality, rather than aggravating instability as many strategists appear to think, may instead be a vital element towards developing a more mature and sustainable civilisation.



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