



# 21st Century Strategies for Sustainability - Part 1

By Hazel Henderson

The term "iconoclast" comes from two Greek words that translate as "statue breaker." Like a 21st century Abraham, Academy Fellow **Hazel Henderson** has been smashing simulacra for decades, though her targets belong to international economics and not the Chaldean moon god "Sin."

Still, pagans are pagans. In this masterful piece, she destroys a few score of statuary on her way to laying out a more thoughtful, and necessarily less conventional, approach to economic development.

She believes the dominant economic models continue to cause massive unsustainability because an interlocking system (from universities to Nobel prizes) replicates the malfunctioning "source codes" in the gene pool of traditional industrialism worldwide. She cites scientific research on the human brain and ecosystems that she believes now refutes most of economics' core tenets. Multi-disciplinary policies and appropriate metrics beyond money coefficients are needed for steering societies toward sustainability and quality of life.

Strategies for global sustainability must address the current economic models driving today's unsustainable forms of globalization. Technological innovation is needed to shift from fossil fuels to renewable energy, recycling and redesigned industrial processes. Beyond this, fundamental strategy levels need re-examination. This includes policy models, assumptions, institutional inertia and cultural values accelerating today's course toward increasing unsustainability.

### From Competition to Cooperation

The human family, numbering now over 6 billion, is clearly the most biologically successful species on planet Earth. We have evolved from our birthplaces on the African continent to colonize every part of Earth, consuming 40% of all its primary photosynthetic production – leading to the current and mass extinction of other species. We have conquered the oceans, the Moon and outer space and now set our sights on Mars. To continue our spectacular technological success and preserve the options for our grandchildren's survival, we must now face ourselves and fearlessly diagnose our major failures: the fragmenting of human knowledge, the persistence of violent conflicts, wars and poverty. The UN Millennium Development Goals (Figure 1) provide an initial agenda. Fulfilling these Goals and shifting from fossil fuels to renewable resources and their sustainability can employ every willing man and woman on earth and expand global prosperity. Reintegrating human knowledge, systems thinking and multi-disciplinary approaches to public and private decisions are widely recognized as necessary to address the human condition in this new century.

Today, research by scientists from many fields--neurosciences, endocrinology, psychology, physics, thermodynamics, mathematics and anthropology--has invalidated the core assumptions underlying economic models.

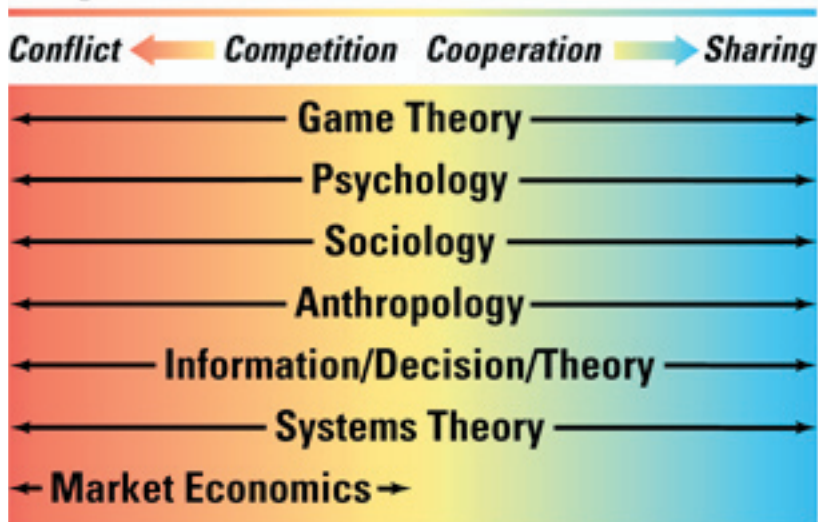


**Figure 1**

Reappraisals of the work of Charles Darwin, together with new evidence from historians, archeologists and anthropologists now clearly point to the evolution of human emotional capacity for bonding, cooperation and altruism ([www.thedarwinproject.com](http://www.thedarwinproject.com)). Competition, territoriality and tribalism, rooted in the fears of our past, served humans well in our early trials and vulnerability. So did cooperation and the ability to trust and bond with each other – influenced in all humans by the hormone oxytocin. Higher levels of this hormone during pregnancy and lactation bonds women to their children over the extended developmental period to maturity. Today, research by scientists from many fields--neurosciences, endocrinology, psychology, physics, thermodynamics, mathematics and anthropology--has invalidated the core assumptions underlying economic models – which dominate public and private decision-making in most countries, multi-lateral agencies, including the World Bank, the IMF and the World Trade Organization. This new research reveals economics as a profession, not a science. Yet today, as privatization and technological evolution speed change

and globalization, economists and their general equilibrium models still drive these processes.<sup>1</sup> While competition remains a key driver in evolution and all human affairs, cooperation and co-evolutionary processes are equally important. Social sciences study the full range of human behavior – with the exception of economics, which assumes competition and self-interest are rooted in human nature. (Figure 2, Full Repertoire of Human Behavior)

## Repertoire of Human Behavior



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**Figure 2**

Political economy studies, as they were originally termed, rose to academic prominence after the publishing in 1776 of Adam Smith's great work *An Inquiry Into the Nature and Causes of the Wealth of Nations*. Invoking the scientific knowledge of the day, Smith related his famous theory of "an invisible hand"

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that guided competition among self-interested individuals to serve the public good and economic growth. Smith drew parallels ascribing this pattern of human behavior to Sir Isaac Newton's great discovery of the physical laws of motion. These principles of Newtonian physics can still be used to guide space craft to land on distant celestial bodies – most recently, Titan, one of Saturn's moons.

Economists of the early industrial revolution based their theories not only on Adam Smith's work, but also on Charles Darwin's *The Descent of Man and The Origin of Species* ([www.thedarwinproject.com](http://www.thedarwinproject.com)). They seized on Darwin's research on the survival of the fittest and the role of competition among species as additional foundations for their classical economics of "laissez faire" – the idea that human societies could advance wealth and progress by simply allowing this invisible hand of the market to work its magic. Karl Polanyi's *The Great Transformation* and many other studies showed that Britain's nationwide market economy, in reality, was installed by Acts of Parliament. (Polanyi, 1945). Yet, in class-ridden Victorian Britain, economists and upper-class elites espoused theories known as "social Darwinism:" the belief that laissez-faire competition and inequities in the distribution of land, wealth and income would nevertheless produce economic growth to trickle down to benefit the less fortunate. The benefits of competition in societies are widely-recognized – in spurring innovation, efficiency and driving industrialism and economic growth. The role of cooperation in families and communi-



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ties was unpaid, unrewarded and invisible in economic models. Cooperation allowed for collective action, taxes and vital infrastructure for commerce.

Charles Darwin also saw the human capacity for bonding, cooperation and altruism as an essential factor in our successful evolution. (Loye, 2000) In retrospect, how otherwise could we have gone from the experience of over 95% of our history lived in roving bands of 25 people or less (Tainter, 1988) to today's mega-cities: Sao Paulo, Shanghai, Mexico City or Jakarta? These improbable metropolises, along with global corporations and governance institutions such as the United Nations and all its agencies, the European Union, now expanded to embrace 25 formerly warring countries, could never have emerged without humanity's capacities for bonding, cooperation and altruism.

So as we have evolved into our complex societies, organizations and technologies of today, we need to re-examine our belief systems and the extent to which they still may be trapped in earlier primitive stages of our development. Why for example do we underestimate our genius for bonding, cooperation and altruism -- seemingly stuck in our earlier fears and games of competition and territoriality? Why do we over-reward such behavior and still assume in our economic textbooks and business schools that maximizing one's individual self-interest in competition with all others is behavior fundamental to human nature? Why do the neoconservatives who drive most US policies today believe, as Margaret Thatcher proclaimed, that the individual has primacy over community? US society is already highly individualistic, whereas Mrs. Thatcher sought to rescue individualism from a more socialistic Britain. Scientific research is now revealing excessive individualism as dogma, while systems views, including those of Ken Wilber, Richard Slaughter, Fritjof Capra, Elisabet Sahtouris, Riane Eisler, Jane Jacobs, myself and many others seek a balance in acknowledging society, culture and the planet's ecosystems.

Why is our equal genius for bonding and cooperative behavior -- even altruism -- not taught in business schools as the true foundation of all human organizations and our greatest scientific and technological achievements? In reality, as every business executive knows, competition and territoriality are channeled within structures of cooperation and networks of agreements, contracts, laws and international regulatory regimes that allow airlines, shipping, communications, and other infrastructure to undergird global commerce and finance. This reality is now recognized as "Co-opetition," (Brandenburger and Nalebuff (1996) but has not supplanted the competition model in economic theory. (Axelrod, 2000; Henderson, 1996; Moore, 1996, Wright, 2000) Thus, the formula for humanity's success has always rested on cooperation while embracing competition and creativity. Yet, shocking evidence documents<sup>2</sup> that the very methods and curricula still taught in most business schools encourage managers in the kind of behavior that produced the wave of corporate scandals and crimes at Enron, Worldcom, Parmalat, Tyco and Arthur Andersen. (Goshal, 2005) This debate in academia can be followed by accessing the publications of Sweden's Dag Hammarskjöld Foundation ([www.dhf.uu.se](http://www.dhf.uu.se)) and the French movement for "post-autistic economics," covered in *LeMonde* and at [www.paecon.net](http://www.paecon.net).



What do deep, primitive beliefs about the primacy of competition and territoriality have to do with poverty, conflicts and wars? All are rooted in ancient human fears – of scarcity, of attacks by wild animals or other fearful bands of humans. Rooting out these fears – deeply coded in our "us-versus-them" political and economic textbooks – is the essential task of our generation. We must move beyond this economics of our early reptilian brains to include the economics of our hearts and forebrains! These old fears underlie today's continuing cycles of oppression, poverty, violence, revenge and terrorism. Indeed, if we humans do not root out these now-dysfunctional old fears, we will destroy each other. Politicians frequently use fear to manipulate consent. Yet fear can be counterproductive. Franklin D. Roosevelt during the Great Depression in the US proclaimed that we have nothing to fear but fear itself.

Meanwhile, the fantastic potential humans have created for further successes through pursuing the UN Millennium Development Goals and building prosperous, equitable, sustainable human societies is now within our grasp. The new "superpower" of global public opinion is already rejecting the old dysfunctional dogmas. Over 10 million people demonstrated peacefully worldwide against the preemptive war on Iraq. Yet as Thomas Kuhn described in his *Structure of Scientific Revolutions*, old dysfunctional beliefs often persist long after they have been disproved. (Kuhn, 1962)

So it is with today's political and economic textbooks and the entire paradigm underlying the "Washington Consensus" model of development. We have evidence of its bankruptcy all around us – widening poverty gaps, the digital divide, unbalanced, unsustainable economies mired in debt – breeding despair and terrorism, diverting resources from enhancing human life to military weapons. Today, even military leaders acknowledge that many problems we face are not susceptible to military approaches. This new awareness reveals not a flaw in human nature but a flaw in our encoding of our past in that set of dysfunctional beliefs that deny humanity's true genius – those cooperative, bonding and altruistic skills that have undergirded our progress to date. Dysfunctional beliefs are deeply entrenched in many of the models of economics that dominate our decision and public policies. This malfunctioning source code underlying economics, focused on money circulation, is still replicating behaviors and organizational structures that imperil human survival under 21st century conditions. The creation of money – from clay tablets, coins to electronic data – was a vital social innovation to track transactions beyond barter in early markets. Yet, money does not equate to wealth, and today's high-tech electronic barter reminds us that money is merely one form of information – no longer needed in today's electronic barter transactions.<sup>3</sup>

Echoes of obsolete theories are still heard today and propounded in mainstream economic textbooks as theories of "efficient markets," rational human behavior as "competitive maximizing of individual self-interest," "natural" rates of unemployment (codified as the NAIRU rule of central bankers) and the ubiquitous "Washington Consensus" formula for economic growth (free trade, open markets, privatization, deregulation, floating currencies and export-led policies). Lately, the US Federal Reserve Board's use of "neutral" interest rates has been exposed by the Levy Institute as convoluted and

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favoring asset owners above workers' wages ([www.levy.org](http://www.levy.org)). Central banks' theoretical money-circulation models must be scrutinized because these institutions have won independence from political control and wield enormous power over societies. Monetary policy and money-creation are now widely understood as political, not scientific. (Lietaer, 2001)

Such unaccountable, obscure theories still underpin today's economic and technological globalization and the rules of the World Trade Organization, the International Monetary Fund, the World Bank, stock markets, currency exchange as well as central banks. Since the 1980s and the waves of global deregulation and privatization unleashed by Britain's Margaret Thatcher and US President Ronald Reagan, central banks lobbied for freedom from political control – even by democratically-elected governments. Even Britain's labor government under Tony Blair conceded this autonomy to the Bank of England. In the USA, Daniel Altman's analysis of the agenda of the neoconservatives, *Neoeconomy: George Bush's Revolutionary Gamble with America's Future* (Altman, 2004) and Ravi Batra's *Greenspan's Fraud* (Batra, 2005), reveals their intentions to dismantle the "New Deal" of Franklin D. Roosevelt, including Social Security, Medicare, laws protecting employee rights, union-organizing, abortion, welfare and other legislation of the past 60 years.

This quiet "coup" achieved by central bankers and their advocates among the economics profession is illustrative of the methods of neoconservatives, such as those currently dominant in the USA. Yet, the failures of these economic models in achieving their targets of non-inflationary economic growth and fuller employment is evident in the recent history of financial crises, booms, busts, bubbles, unrepayable debt and unemployment. The policy drumbeats of economists and market players supported central banks. They were buttressed by their claims that economics, with its increasing use of mathematical models, had matured into a science, matching the feats of natural sciences since Newton and Darwin in discovering the laws of nature. Economists' theories from Smith's "invisible hand" to Vilfredo Pareto's "optimality" were elevated from theories to the status of scientific principles. Many debates over categories and indicators derived from such theories involve basic questions of causality. For example, why is education a "cost" not an "investment?"<sup>4</sup>

In 1969, the Central Bank of Sweden put up US\$1 million to create a prize to confer scientific status and legitimacy on the academic discipline and widespread policy advocacy of the economics profession. Thus, the Bank of Sweden named its economics prize "in memory of Alfred Nobel" and lobbied this designation onto the Nobel Prize Committee. As his descendant, Peter Nobel put it, "The Bank of Sweden, like a cuckoo, laid its egg in the nest of another very decent bird, infringing on the name and trademark of Nobel." Since 1969, most of the Bank of Sweden Prizes in Economic Science have been awarded to US economists espousing the Chicago School policies of laissez-faire "free markets" typical of its most prominent prize winner Milton Friedman (who is often erroneously described as a "Nobel laureate"). Peter Nobel added, "These economists use models to speculate in stock markets and options – the very opposite of the humanitarian purposes of Alfred Nobel."<sup>5</sup> Chicago School doctrine holds that if individuals and private business



make money, that this process will eventually "lift all boats" in a rising tide of prosperity – thus confusing money with wealth – a much broader concept. While controversies have often surrounded Nobel awards, arguably the Bank of Sweden prize should be properly named since economics is central to public policies in all countries and multi-lateral agencies. The prizes for peace and literature rarely impact the daily lives of billions of people. Some prizes in peace and science have been controversial and too often encouraged military research driven by corporate contractors, profit, personal greed and ego-gratification. As a scientific advisor to the US Congress from 1974-1980, I found "intellectual mercenaries" flourish in business, government and academia.

In December 2004 many scientists revolted, including members of the Nobel Committee and Peter Nobel himself, demanding that the Bank of Sweden's economics prize either be properly labeled and de-linked from the other Nobel prizes – or abolished. The reason for this sudden outburst, which had been brewing for some time, was the awarding of the economics prize to two more Chicago School economists, Edward C. Prescott and Finn E. Kydland, for their 1977 paper purporting to prove by use of a mathematical model that central banks should be freed from the control of politicians – even those elected in democracies. The mathematicians pounced – pointing to the many misuses of their models by Prescott and Kydland and other economists to "dress up" their questionable theories and unscientific assumptions (Dagens Nyheter, Stockholm, Dec. 10, 2004).

As this news spread around the world (InterPress Service, Jan 2005, *LeMonde Diplomatique*, Feb. 2005), the usual heralding of the new economics prize winners in the mainstream financial press was strangely muted. Editors and spokespersons for market fundamentalism fell quiet in their citing of their favorite policies as backed by some "Nobel laureate" in economics. Yet economics is an honorable profession, like law, medicine, engineering, architecture and other such applications of knowledge. Lawyers are known as advocates. Economists have always been advocates of various government policies, regulations or deregulation, and of the interests of their clients (most often bankers, financial firms and corporations in general). These advocates, whether lawyers, economists or lobbyists, have legitimate roles in policymaking. Transparency requires policymaking so that the public is fully informed – and the issues are argued honestly.

The globalization of finance and technology, the spread of privatization and deregulated markets have produced a range of unanticipated consequences. For example, today's global Information Age has already become The Age of Truth – where careless corporate actions can destroy a global brand in real time. Business leaders worldwide have responded by embracing the idea of good corporate citizenship, both at home and globally. Two thousand companies (including some 600 in Brasil) have signed on to the 10 principles of Global Corporate Citizenship of the Global Compact, launched by the United Nations in 2000, covering human rights, workplace safety, justice and ILO standards, as well as the environment and anti-corruption. Civic groups worldwide now monitor all the companies who have engaged with the Global Compact, to see if they are walking their talk. Backsliders are publicly

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shown on hundreds of websites. The World Social Forum has successfully linked hundreds of thousands of civic activists and organizations and made the beautiful city of Porto Alegre a mecca of innovative thought. My TV series *Ethical Markets* on US public broadcasting stations benchmarks higher standards, corporate ethical performance and socially-responsible investing worldwide ([www.ethicalmarkets.com](http://www.ethicalmarkets.com)). Contrary to *The Economist's* editorial skepticism about such corporate responsibility<sup>6</sup>, 77% of CEOs of major corporations surveyed by KPMG and the World Economic Forum in 2005 said that such higher ethical behavior was "vital to profitability."

### Footnotes

1. InterPress Service, Montevideo, NY, Rome, June 2003, Hazel Henderson, "G-8 Economists In Retreat"
2. *The Economist*, "Bad For Business?" Feb. 17, 2005
3. *World Affairs*, 2001, Vol. 5, #2, pp. 48-58, Hazel Henderson, "Information: the Great Leveler"
4. *Boston Research Center Newsletter* #23, Fall-Winter 2004, Hazel Henderson, "Education: Key Investments in the Wealth of Nations"
5. InterPress Service, Rome, Montevideo, Washington, DC, December 2004, Hazel Henderson personal interview with Peter Nobel, quoted in "Abolish The 'Nobel' In Economics?"
6. *The Economist*, January 25, 2005