Futurewatch

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New Zealand

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Social

On Social Justice

Professors R. Chapman, J. Boston explore some details of the social implications of decarbonising the NZ economy, Social Policy Journal of NZ, July 07. If global warming of more than 2 degrees C is to be avoided, NZ’s contribution to greenhouse gas emissions needs to fall by up to 70% by 2030 and 90% by 2050. Such massive reductions will require major changes in energy generation, transport fuels and behaviour, land use and urban design, underpinned by modifications to national policy frameworks and changes in social attitudes and behaviour.

They provide six core propositions towards a policy framework for consideration of such implications:- that the implications over the next decade or more will flow from the mitigation policies adopted regarding climate change; the nature of these policies are crucial; they will be influenced by the degree of foresight exercised by policies in government, the private sector and individuals; the implications will depend greatly on the resilience of the various sectors, the lifetime of economic capital therein, and how people adapt to more sustainable ways of living; there will be less disruption to communities and individuals if there are also opportunities to develop appropriate emission reducing activities; and the uncertainty around the magnitude of climate change impacts and the social and technological responses, makes a good case for greater mitigation policy efforts, not less.

But a forced, rapid transition can be socially divisive, with adverse effects on poorer and more physically marginalised communities.

The built environment is responsible for some 45% of all greenhouse gas emissions. "Green design" is a key urban strategy for mitigating or overcoming this, The Environmental Brief: Pathways for Green Design, R. Hyde et al. Taylor and Francis, 07. This Australian study examines principles and actions, with case studies.

Growing Smarter: Achieving Livable Communities, Environmental Justice and Regional Equity, Ed. R. D. Bullard, MIT Press, 07, explores a concept which is forming a new type of pub-
lic policy, which includes planning for natural disasters and dealing with sprawl, with many examples from across USA.

*Human Rights and the Global Marketplace: Economic, Social and Cultural Dimensions, J. M. Woods, H. Lewis*, Transnational Publishers, 05 is a thorough, rigorous study of the theoretical foundations, the historical dimensions and theoretical applications of these rights. Stories as well as data enhance the study which is important for legal practitioners, students and activists.

**Troubled Youth**

UK academic **H. Sutherland** examines the UK policies to reduce child poverty in hopes of eliminating it by 2020. This approach was viewed in a wider context of a social investment in children, *Social Policy Journal of NZ, July 07*. Tradeoffs were needed in the policy between the goals of providing adequate social protection for those unable to support themselves and that of maintaining incentives to work and save for those with potential to do so. After eight years, assessment indicates that the circumstances and responses of many poor families is more complex than the models indicated; that wage rates, though relatively high, are still not high enough to be sufficient incentive; that there are still impacts from the underlying debate about mothers as earners and as stay-at-home parents, plus the gender pay gap; that there is a complex relationship between parental employment, ethnicity and child poverty; and finally that the complexity of the system itself is a barrier to take up.

International youth policy consultant, **R. Curtain**, *Current History, Dec 06*, explores the data and implications for the 1.3 billion young people in poor countries. This is expected to grow further and peak by 2035, though not until 2050 in Africa. This is a generation shaped by globalisation, who face a cruel, frustrating reality, of rising expectations and restricted options because they are half of the world’s active job seekers, though comprising one quarter of the global working-age population. Significant factors for this generation:- they are generally healthier and better educated than earlier generations and many more of them live in very large cities where they are less restricted by family and community while being exposed to the images and values of a globalised society. Consequently many have forged “dual identities:” one based on the worldwide culture, lifestyles and individual rights; the other based on local traditions where there is concern to preserve a distinctive way of life. The conflicts from this duality are reflected in attitudes to western society.

A further factor is the gap between their expectations and opportunities, compounded by numbers. This results in over-credentialing, acceptance of corruption, and a stalled achievement of adulthood, financial security and family formation and even maintaining health. International agencies and governments in poor counties consider young people in conflicting ways:- as vulnerable (especially girls), as threatening and, to a much more limited degree, as assets. Polices to promote youth as assets have been limited; the focus should be on providing more young people with basic levels of education, enhancing life skills with relevant occupational and entrepreneurial training, better access to credit and opportunities to learn best international practices.

**P. S. Pinheiro**, leader of the UN Study on Violence Against Children, reports on youth violence and democracy, *Current History, Feb 07*. Latin America is the particu-
lar focus for this abuse of human rights, despite the region's hopeful two decades of restored democracy. The daily reality is an "un-rule of law", with young people aged 10-25 as major targets. Criminal involvement of young people and youth gangs has surged over the last decade, providing justification for the oppressive official response, aggravated by "moral panic" inflamed by political rhetoric. But these groups are formed by early and constant exposure to violence, many of their members have had limited education, and usually have been expelled from school, they come from disrupted, often violent, families, while violence is used by the gangs to which they give loyalty, as the way to meet the membership's economic and social needs. The economic structures marginalise millions of poor families which produce the gang members, and society stigmatises them racially, situations aggravated by economic restructuring and the turbulence of transitions from civil wars.

J. Rubin, L. Rabinovich, RAND Review, Spring 07, report that UK concern about antisocial behaviour among young people has led to some new policy initiatives based on international studies of effective intervention measures. This international data indicates that the best value comes from parent training and early childhood interventions. Positive results also come from developmental and rehabilitative programmes, interpersonal skills training and family-based interventions. Restorative justice programmes need further evaluation. Even policies to reduce litter and graffiti are worthwhile. Detailed reports in RAND studies listed with the Review summary.

A. Neustatter, New Statesman, 13 Aug. 07, pp 22-23, reports on a major study published UK Home Office, co-author E. Vizard, Links between Juvenile Sexually Abusive Behaviour and Emerging Severe Personality Disorder Traits in Childhood. This report on a three-year study of 280 identified juvenile sexual abusers, mostly male, showed that the childhoods of the offenders nurtured their abusive behaviour: family breakdown, physical, emotional and sexual abuse, inadequate family sexual boundaries, poor parenting and insecure attachment Online child pornography is a significant stimulus. Society needs to realise how damaging these childhoods can be, rather than just condemning adult paedophiles. With intensive therapy young abuser can change direction, proved by over twelve years of such work.

Moral Lives

Secularism Confronts Islam, O. Roy, Colombia Univ. Press. A noted French scholar of the Muslim world analyses the myths and prejudices which are part of the current approach to Islam. The problem is not the religion but the contemporary forms of its revival. Modern secular society, especially in Europe, is uneasy with assertive revivalist religions, especially Islamic, and misread the protests of disaffected Muslim youth against their social marginalisation. Modern, secular states should treat all the conservative faiths similarly, by distinguishing between moral and legal norms. Provided the law is respected, moral views are a personal matter.

Islamica Magazine, Issue 15, 06, pp 18-19, notes that the debate about Muslim identity and integration in UK and Europe misses the point. Social, not religious concerns, are the real problem. Education systems fail to acknowledge their newer minorities, unemployment and labour market discrimination compound the sense of isolation, while housing and urban policy complete the picture of dominant
socio/political groups who will not listen, foster fear and stigmatise people’s sense of belonging.

In God’s Name, Survey, The Economist, 2 Nov 07, examines the growing role of religion in global affairs, as new assertive branches of traditional faiths conflict with each other, within their parent streams or with other faith streams or with secular modernism. Special studies included on India, Turkey and USA, where diverse religious view are accepted in domestic politics, but pose problems for international relations.

Psychologist J. Haidt, Science, 18 May, 07, pp 998-1001, outlines the revolution in our understanding of moral psychology, as the ethical, behaviourist and cognitive development theories of earlier decades have been replaced by understanding based on study of the emotive centres of the brain over the past decade or so. The resulting “affective revolution” revived three much older principles. Firstly, intuitive primacy; the building blocks of human morality are emotional. Secondly, moral thinking is for social doing. Humans seek useful explanations for their feelings and behaviour, especially in social settings where relationships matter. Our cognitive machinery was developed in adaptation to community living. Thirdly, morality also binds and builds, by rewarding of virtue and punishing wrong. Religions have evolved complex practices, stories and norms to enhance this cohesion. Several foundational streams contribute bases for moral norms, such as loyalty, bodily purity, respect and obedience. In western society, emerging principles are: extending beyond doing harm (the interpersonal issues of care and altruism) and fairness (reciprocity and justice).

On the Margins

UK gerontologist C. Phillipson, Ageing & Society, Vol. 17/3, May 07, explores the sense of belonging and identity for the elderly in community change resulting from the cultural and economic effects of globalisation. Environmental perspectives need to be more strongly considered in this changing environment since many older people have lived in one locality for much of their lives. While globalisation is causing new types of movement for older people, expanding their mix of spaces, communities and lifestyle settings, new social divisions are also developing as many elderly have their choices constrained and experience various types of rejection.

Alternatives, Vol. 32/1, 07, is devoted to Local Reaction to Global Integration - the Political Economy of the Development of Indigenous Communities. Eds H. K. Aikau, J. H. Spencer comment on the three recurring dilemmas revealed in the case studies from N. and S. America and Asia. Who defines the indigenous group, and to what end? How do such groups assert their identities and claims against the nation state, even though it is that which legitimates them? In a fast-globalising world of placelessness, how and why do they articulate socio-spatial identities?

Beyond Biculturalism: the Politics of an Indigenous Minority, D. O’Sullivan, Huia, 07, explores contemporary Maori political events, arguing that official attempts to promote a bicultural state have failed. The way forward for Maori political development is sovereignty-tino rangatiratanga.

L. D. Soto, Taboo, Spring-Summer, 06, explores the complexities of "Border-crossing," critical multicultural ways of knowing, among people (illustrated by American references) who by birth belong to two or more different, minority cultures.
Only recently have these borderlanders been explored, since racism, cultural invasion, domestication, language domination and the imposition of an exclusionary curriculum have compounded historical amnesia. Multicultural educators need to study power and privilege within a critical multi-cultural perspective. New meanings and identities are being forged in the "third space", in between, sceptical of cultural totality. This can lead to a critical narrative of social justice and equity.

Listings.

Assessing the Environment Consequences of Major Sporting Events: The 2003/04 FA Cup Final, A. Collins et al, Urban Studies, Vol. 44/3, March 07. Using two methodologies for economic and environmental impacts the authors provide a combined analysis which can be applied by other policy-makers.

Ending the Influence, New Scientist, 11 August 07, pp 44-45. US drug testing expert D. Catlin has a new strategy to turn around the present attempts to catch up the ingenious new drugs. A cultural shift is needed which should involve the athletes, because basically they do not want to take drugs.

Childrenz issues, Vol. 11/1 07, is devoted to Maori children, as a special memorial to the late Maori Queen. Topics cover the importance of Te Reo (the language), perspectives on Otherness, whanau mentoring, the Treaty of Waitangi and early childhood education, and children and the law.

Education

How to be Top, Educationally

While the best NZ students compare with their internationally peers, there is a huge achievement gap, with the worst NZ students comparing with the worst internationally. Studies by McKinsey, The Economist, 20 October, 07, pp 76-77, NZ school principal B. Ritchie, Education Review, 26 Jan 07, and W. N. Grubb, Phi Delta Kappan, October 07, offer lessons from top national educational systems, where there is consistency across all levels:-Finland, Singapore and S. Korea. Finland gets special attention; it features a national, nine-year, basic education for all, with equitable outcomes and no streaming; resources are targeted to the lower secondary level where it is considered most necessary; decision making is decentralised to local education boards, while and stakeholders work together to develop a shared educational vision.

Teaching is a high status profession, though not very highly paid; entry is controlled and highly competitive. Teachers are required to have a Masters degree for all levels, and intensive teacher training is required after graduation, with time allowed for professional and team development while on the job. Extensive support is provided for special needs students. In addition to the regular teaching assistant in most classes, specialist teachers are widely available to ensure that special needs students and those having problems in class or personally, receive early intervention to keep up. These specialist supports receive 15% of the educational budget. Teachers are trusted, there are few examinations or tests, though entry to upper secondary is competitive, leading to vocational or general education, both of which can lead on to university or polytechnic.
Ritchie considers that if NZ is to prosper economically, it needs to revise its priorities for education:- empower the teaching profession and develop a supportive educational ethos; ensure that scarce, valuable educational resources are targeted to the classrooms, not to the bureaucracy; make profound changes in educational policy based on well-validated research; develop a model of professional practice to ensure that the achievement gap is closed; and make education our top priority for national development.

*Education Review, 19 October 07, p 7, B. Ritchie* explores the development of models of professional practice in NZ schools. He refers to Harvard Graduate School of Education Professor R. Elmore and recent a Maori secondary school programme, Te Kotahitanga, developed by R. Bishop, Waikato Univ. This convergence of research led to a hugely successful change in Maori student achievement. More NZ schools should have the opportunity to do likewise, growing their own model which adapts international best practice to their own needs. Adequate resources, in funding and teacher training, are needed.

*J. Harris, Education Review, 12 Oct 07, pp 8-9*, reports on the progress of an innovative model “designated character school” in Christchurch, Unlimited Paenga Tawhi, for year 9-13 students, where personalised learning and student-directed learning is the core of what happens.

*J. Hellner, Waikato Univ, promotes and discusses the benefits of professional learning communities, Education Review, 31 Aug, 7 Sept, 21 Sept 07*, where teachers are encouraged to take an active collaborative reflective learning-oriented and growth promoting approach towards teaching and learning. This is stimulating for students as well as teachers.

The Future of Te Reo

Te Reo Maori, the Maori language, is now thriving compared with half a decade ago, but its future is still fragile, *Education Review, 13 July 07, pp 7-9*. Numbers of students climbed dramatically until 2003 but have dropped since then despite more school age Maori students. While the language is more commonly used, it needs more effort to become sustainable. This would include tertiary level scholarship to foster evolution, more quality, trained, language teachers, and a wider variety of resources using new media. Surprisingly large numbers of non-Maori are learning te reo and there are calls for Maori, as the national second language, to be compulsory.

*Q. Corfield reports, Mana, March 07*, that many of the Maori kaumatua, community leaders who are fluent in Te Reo, are dying, but the next generation (50 years or so) feels unworthy to take their place since they lack the language and therefore cannot preside competently in the community ceremonies. They may become a lost generation, bypassed in favour of younger, fluent Te Reo-speaking men.

Major Challenges for Major Societies

Middle Eastern security specialist M. Fandy, *Survival, Summer, 07*, analyses the present state of education in the Muslim societies of the Middle East and SE Asia. Even today these states are failing to meet the demand for public education and relaxation of politically repressive systems. It seems unlikely that they will rise to the chal-
lenge of educating larger, younger, more urbanised populations in the next decade,
leaving students to stitch together education and worldviews from ideological, linguist-
cultural pieces. The Muslim world's educational crisis is one of "software";
what is being taught and how and by whom, which in turn is part of the larger crisis
of economic and social reform. The West should avoid assuming that its own system can
be grafted on to the Muslim world. Support needs to be given to those individuals and
research centres which are trying to advance programmes for more enlightened educa-
tion.

Education and Social Change in China: Inequality in a Market Economy, Ed.
G Postiglione, M. E. Sharpe, 06, offers eight sociological studies on the problems of
schools and children in disadvantaged and poor areas resulting from policies of the
past few decades. While many urbanised young people have gained in choice and
quality, many minorities, rural students and others are increasingly marginalised. Two
studies focus on to what purpose, on what terms and at what, cost girls are participat-
ing in education. The problems of schooling for rural Tibetans exacerbates their mar-
ginalised status amidst the flood of migrants from China.

The Tertiary Scene

Crisis of Identity? The Mission and Management of Universities in New
Zealand, W. Malcolm, N. Tarling, Dunmore, 07, from experienced professors, one
an administrator, highlights their fundamental commitment to the pursuit of knowl-
edge, and the impacts of the recent decades of change in NZ universities. Review is
needed of what their primary role is and how it can be achieved.

Learning to Seek: Globalization, Governance and the Futures of Higher
Education, Eds W. T Anderson, J. Dator et al, Transaction, 07, offers ten presenta-
tions from a Symposium on technology transformation in higher education, including
NZ's J. Hinchcliff. Topics range over the possibilities of technologies, universities as
networks, "rankism", integrative thinking for leadership, governance values, gender
equity, new forms of governance, eight critical challenges and the global learning
academy.

Design On The Edge: The Making of a High-Performance Building, D. W.
Orr, MIT Press, 06, is an expert study of the experience of a major innovation in eco-
logical design on a US university campus, Oberlin's Lewis Center. Covers lessons
learned on how innovation occurs in higher education and the political economy of
buildings in the post-petroleum world. The curriculum as well as the buildings need
redesigning. "The goal of education is first and foremost to equip minds for life on a
planet with a biosphere".

The Fundamentals

Multiple Intelligences: New Horizons, H. Gardner, Basic Books, 06. Since
1983, MI has elaborated on the traditional measures of intelligence, now expanded
beyond the original seven by naturalistic and, perhaps, existential intelligences.
Conclusion from this:-all of us have the full range of intelligences, no two persons
have exactly the same intelligence profile, and having a strong intelligence capability
does not mean the person acts intelligently. All the intelligences require nurturing.
E. Zigler et al, *A Vision for Universal Preschool Education*, Cambridge Univ. Press, 06. A Yale expert provides a definitive study on desirable preschool programmes in US, desirable because they enhance school readiness, they fill a critical gap for working families and they are cost-effective in later savings on social problems. The programmes need to be whole-child focused, not just academic and supported by comprehensive services to meet the child's needs. Quality, trained teachers are necessary.

**Starting Strong II: Early Childhood Education and Care, OECD.** 06, surveys efforts, 1998-2001 onwards, by 12 countries to identify the components of successful policy for such services.

**Listings**


- **Harnessing the Power of Video Games for Learning; Summit on Educational Games, Federation of American Scientists** 06. Input and recommendations from a hundred US educational experts, 2005. Overall these are a valuable new resource, if properly used, which could encourage the US workforce to respond adequately to technological innovation.

- **Think Scenarios, Rethink Education, OECD (Centre for Educational Research and Innovation)**, 06, provides 12 expert essays with case studies and advisory guidance for a wide range of applications of scenario planning in education.

- **No, It's Not OK: How to Stop the Cycle of Bullying**, T. Roxborough, K. Stephenson, Penguin, 07, is a practical guide from experienced NZ teacher-trainers on the issues involved in this school and society problem, and what families, schools and students can do.

**Futures Thinking**

**The Calm Before The Storm?**

A. K. Webb, *International Political Science Review*, Vol. 27/1, 06, explores theories that the age of revolutions is over, as webs of economic interest converge, binding states into the democratic, globalised fold. In fact, this may be the calm before the storm, directed not at capturing control of nation states, but in reaction to the transnational political institutions which are creating a new sources of extreme discontent against the self-interested pursuits of global capital, which is both unresponsive to rising inequality and brittle. Nation states legitimacy is being undermined and there are no outlets for effective popular participation at global level. A future profound economic crisis could ignite the marginal urban strata of the South and the traditionally-minded lower middle class of the North, leading to a global rupture.
Toolbox

Behavioural economist J. Epstein, reported by L. Else, New Scientist, 12 May, 07 pp 50 -51, is developing rich models which represent how people act, and their interactions in wide-scale change. This can be applied to many situations including flu pandemics and civil conflicts.

Thinking About the Future: Guidelines for Strategic Foresight, Eds A. Hines, P. Bishop, Social Technologies, 06. 36 experienced professional contributors’ expertise is reframed into over a hundred guidelines in six categories, each with key steps, a case study and bibliography. Categories:- Framing, attitudes, objectives, work environments; Scanning, mapping the system, looking outside the box; Forecasting, identifying drivers, uncertainties, turning points, divergences and convergences, identifying alternatives; Visioning, identifying implications and longer term consequences, challenging assumptions, setting strategic goals; Planning, thinking strategically, options; Acting, communicating results, action agendas, creating intelligence systems. And more.

The Change Handbook: The Definitive Resource on To-day's Best Method For Engaging Whole Systems, 2nd Ed, P. Holman et al, Berrett-Koehler, 07. This comprehensive study examines 6 categories of methods:- adaptable, planning, structuring, improving and supportive. It also analyses getting the Big Picture, understanding these methods, their selection, integration and results, with a summary appendix on each method.

Leadership Agility: Five Levels of Mastery For Anticipating and Initiating Change, B. Joiner, S. Josephs, Jossey-Bass, 07. “This is the master competency needed for sustained success in today’s turbulent economy”, turbulence which can be expected to increase. Five levels are explored:- Experts, for incremental change; Achievers, the motivators; Catalysts-participative team builders, with vision and openness to change; Co-creators, genuine team collaborators; Synergists, holistically oriented with an evolving sense of life purpose.

HEALTH/MEDICINE

The Challenge of Global Health

Global health expert L. Garrett, Foreign Affairs, Jan-Feb 07, is deeply critical of the massive philanthropic efforts being focused on narrow disease-specific problems, such as HIV/Aids. It will take at least a generation to produce sustainable outcomes, and for the countries where the poor and sick chiefly live, there needs to be at least equal focus of retraining and retaining well-trained health-care workers, and providing the necessary infrastructure, roads, clinics etc, even at basic level to back the new treatments. Much of the donor funding is going to what the donors want. The top three killers in most poor countries are maternal deaths around childbirth and child respiratory and intestinal infections which lead to death from pulmonary failure or uncontrolled diarrhoea. Dealing with infrastructure for maternal and child health, malaria, TB, then nutrition, water and sanitation, if sufficiently resourced and planned, would not only reduce deaths more dramatically, but also promote economic development and alleviate poverty.
Compounding the present problems is the lack of health training centres for training health workers and researchers, and to staff local clinics, if these exist. Thousands of the current graduates from local or foreign institutions are leaving their homelands in frustration because of the deficiencies and dangers, to work in the rich countries.

*British Medical Journal, 28 April 07, pp 784-786,* reports on the success of philanthropic institutions such as the Gates Foundation, in raising the billions of dollars and the resulting efforts to combat major diseases such as malaria or HIV/Aids. This has prioritised research gaps, provided funding, developed partnerships with key global health actors, and stimulated some poorer nations to increase their own health funding. But strong criticism is directed at the vertical planning involved, which "stovepipes" resources and personnel into specific focal areas, fragmenting local health systems by duplicating planning staffing and management, with technological solutions dominating strategies.

An international panel of experts, *A. S. Daar et al, Nature, 22 Nov, 07*, note that non-communicable diseases are reaching epidemic proportions globally across all nations and classes. Such diseases include cardio-vascular conditions, some cancers, diabetes Type 2 and chronic respiratory diseases. These, the greatest causes of deaths and disabilities, are projected to rise dramatically in the developing world, causing many billions of economic loss in countries such as India and China.

To help prioritise global programmes for prevention and treatment, 20 Grand Challenges have been distilled, grouped under six broader themes or Goals:- raising public awareness; enhancing economic, legal and environmental policies; modifying risk factors; engaging business and the community; mitigating health impacts of poverty and urbanisation and lastly, reorienting health systems.

*The Lancet, 10 March 07, pp 857-861,* outlines the UK government's Global Health Strategy, to use public involvement in health research and services, as an instrument of foreign policy, for the benefit of the global society and for the UK itself. This would rationalise the official health involvement across the various sectors and ministries, prioritise goals, and relate all this more coherently to the various international agreements and agendas to which the UK is committed.

*Ethnicity, Race and Health in Multicultural Societies, R. S. Bhopal, OUP, 07,* challenges policymakers and practitioners to achieve better health for minority populations. Using race and ethnicity as variables involves conceptual and analytic tensions about the interpretation of such health effects as genetic predisposition or health beliefs. The fundamental issue is equity versus equality, the key question is how to target services. Equality means a wider net with potential to improve outcomes for all, but it also denies the complex dynamics which cause and sustain ethnic disparities.

*Primary Care in the Twenty-First century: An International Perspective, G. Meads,* Radcliffe, 07. This is a thematic analysis with case study data and personal interviews. Special focus is made of those countries with novel organisational systems in primary care. It is assumed that the traditional key relationships still hold:- in the family, in the community and in advocacy with governments. Six varieties of family medicine are operated internationally:- extended general practice; managed care enterprises; reformed polyclinics; district health systems; community development agencies; franchise outreach protocols for competitive businesses. The USA is omitted.
A. Stevenson et al., *Social Policy Journal of NZ*, Nov 06, reports on a strategic policy-level health impact assessment (HIA) on the Greater Christchurch Urban Development Strategy. In anticipation of major population increases over the next decades, links were explored between urban design, health determinants, and health outcomes in high level strategic planning. Determinants were air and water quality, housing, transport and social connectedness. The HIA was found to be extremely valuable and a path for further collaboration. It is recommended that the HIA principles and processes be incorporated into Local Government cycles.

**New Insights, New Hopes**

Gene therapy meeting stem cells is the wave of the future, according to the recent annual meeting of a US gene therapy organisation, *New Scientist*, 16 June, 07 pp 14-15. Targeting therapeutic genes to the body's own stem cells is nearing clinical trial as a treatment for diabetes and a group of neuro-degenerative conditions. Once modified, stem cells should continue to divide normally. Experiments are underway for similar utero gene therapy for some forms of breast cancer and possibly heart attacks.

*Science*, 13 April 07, p185, has confirmed that a genetic factor underlies development of obesity. Earlier studies have found common disease genes for age-related macular degeneration, diabetes and prostate cancer.

**Healing Invisible Wounds: Paths to Hope and Recovery in A Violent World**, R. F. Mollica, Harcourt, 06, studies successful treatments for refugees who have survived torture and terrorism. The foundation treatment is the trauma story shared with the healer-listener. Painful for both, this relationship is a key element along with factual narration, personal and spiritual insight and understanding of the cultural meaning of violence.

**E. Singer**, *Technology Review*, July-Aug 07, reports investigations into the highly complex world of microbes in the human body to determine how bacteria, ten times more numerous than human cells, influence our health, both negatively and beneficially. They are difficult to study, but modern DNA sequencing techniques enable scientists to study whole bacterial communities. Each person appears to have distinct menageries of microbes, though common patterns may explain such problems as obesity.

**Developmental Origins of Health and Disease**, Eds. P. Gluckman, M. Hanson, Cambridge Univ. Press, 06, integrates an emerging field of theory, evidence and implications, from experts such as Liggins Institute's (Auckland), Gluckman. Organisms are capable of predictive adaptive responses in current environments to strategise for immediate and also long-term survival. A mismatch can occur if the later environment of the organism, such as a previously malnourished individual, encounters an environment differing from that predicted, such as a fast food culture. The organism interacts with its environment across the whole life cycle, with nutritional deficiency probably having the greatest effect. Implications apply in primary prevention and public health, especially in developing countries. See also *Mismatch: Why Our World No Longer Fits Our Bodies*, same authors, OUP, 06.

Fat has undergone a status revision in the eyes of researchers, *Nature*, 3 May 07, pp 525-527. Fat cells are the keys to the control of sugar take up in the body and sig-
nal when they are full. More investigation is needed as to why engorged "fat" fat cells fail to do this, triggering inflammation and insulin resistance, which could result in new treatments which focus not on losing fat, but making "fat" cells behave.

Listings

The Body Has A Mind of Its Own: How Body Maps in Your Brain Help You to Do (Almost) Everything Better, S. & M. Blakeslee. Random House, 07. The emerging science of brain mapping is the basis of a non-specialist account of the remarkable discoveries in neuroscience, with special reference to mirror neurons, which are significant in the promotion of learning by imitation and effect empathy cultural transmission and language.

World Drug Report 06, Vol.1. Analysis, UN Office on Drugs and Crime, 06, reports that the land under coco and opium production is less now than few years ago, and that the severity of addiction has stabilised, with the number of addicts declining dramatically over the century.