what next

volume 11 | the case for pluralism

Development Dialogue is a forum
provided by the Dag Hammarskjöld
Foundation since 1972 for critical
discussions of international
development priorities and challenges.
Its main focus is on North-South
relations and alternative perspectives
to dominant paradigms. *Development
Dialogue* is published in consecutive
numbers on average twice a year.

With this volume the Dag
Hammarskjöld Foundation
concludes its *What Next* project. This
reflected on the Foundation's work
and identified new development
challenges. Its culmination was
the *What Next Forum*, with several
hundred participants from the
Foundation's network, in September
2006 at Uppsala Castle. We welcome
the emergence of an independent
What Next Initiative, which builds
on the themes and ideas of the
What Next project. Its work can be
followed at WWW.WHATNEXT.ORG.

what next volume ii | The case for pluralism

Preface

This volume concludes the Dag Hammarskjöld Foundation's *What Next* project, which, over several years, reflected on the Foundation's work since its 1975 report, *What Now: Another Development*, and explored new challenges ahead.

Through a series of seminars, meetings and workshops in places ranging from Dehra Dun to Mexico City to Ottawa, civil society activists, academics, media people and government officials, among others, met for intensive discussions and debate on a wide range of issues.

Participants in the *What Next* process mapped out and analysed scenarios linking areas such as the convergence of new technologies, knowledge systems, economics, corporate concentration of power, civil society struggles for deeper, structural change, and visions for alternative futures. This volume shares some of the insights and ideas stemming from this process.

For the Dag Hammarskjöld Foundation, the project culminated in the *What Next Forum*, which took place at Uppsala Castle in September 2006. Over three days, more than 300 participants from many parts of the world and different spheres of life engaged in workshops and seminars. As a final follow-up, the Foundation organised a *What Next Feminist Seminar* at the end of January 2008. Like several other projects and activities originally initiated or supported by the Foundation, its participants will continue their work independently. In a similar vein, the newly established *What Next Initiative* intends to explore and develop in its own way the ideas and perspectives that guided the overall *What Next* project.

We would like to thank Matilda Hald, Olle Nordberg, Robert Österbergh and Daphne Thuvesson who all at various times contributed to the editing process of this volume in the making.

Our thanks also go to Wendy Davies, who once again contributed to the quality of the publication by taking responsibility far beyond the meticulous language editing.

Uppsala, July 2009

Niclas Hällström / Henning Melber

The case
for pluralism

Introduction

Niclas Hällström

This volume will take you on a journey through what at first glance may seem a selection of disparate topics – the feminist movement, economics education, seed-saving, disability rights and nanotechnology, to name only a few. This diversity of topics is significant in itself, as it captures the broad, cross-cutting approach of the whole *What Next* project and points to the many connections and commonalities that underlie so many of our major issues and challenges today.

However, it also became apparent during the work and interaction with many individuals involved in the *What Next* endeavour, not least the authors of these articles, that all make very strong arguments for the need for pluralism as such. The need for pluralistic frameworks that recognises diversity as a strength and cautions against a universal blueprint is at the core of alternative development thinking. Thus it is reflected in this broad selection of articles.

Already in the 1975 Dag Hammarskjöld Foundation publication *What Now: Another Development* diversity and pluralism are at the core. The five principles of 'Another Development' stated:

> Development should be
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> - *need-oriented* – being geared to meeting human needs, both material and non-material;
> - *endogenous* – stemming from the heart of each society, which defines in sovereignty its values and the vision of its future;
> - *self-reliant* – implying that each society relies primarily on its own strength and resources in terms of its members' energies and its natural and cultural environment;
> - *ecologically sound* – utilising rationally the resources of the biosphere in full awareness of the potential of local ecosystems as well as the global and local outer limits imposed on present and future generations;
> - based on *structural transformation* – so as to realise the conditions required for self-management and participation in decision-making by all those affected by it, from the rural or urban community to the world as a whole, without which the goals above could not be achieved.

In particular, the second of the five core principles of 'Another De-velopment' makes a strong point for pluralism. The concept of 'An-other Development' argues against the dominance of a mainstream 'development model' largely based on a very particular Western Eu-ropean and North American historical experience. Echoed 30 years later by the World Social Forums' call that 'another world is possible', the *What Next* project and not least this publication set out to ex-plore what this might mean. Not attempting to come up with new, universal, 'alternative' blueprints, but instead arguing for a pluralism of alternatives and options, these articles together indicate directions and visions of how the world could become a saner and better place to live.

There is a dire need to reshape thinking on development, progress and society at the core

There is a dire need to reshape thinking on development, progress and society at the core. So much of the current debates and interna-tional negotiations – even those explicitly dealing with environment, development and global inequalities – are framed within certain con-straints and limited by assumptions we seldom realise or question. The space for imagination and visionary thinking is unnecessarily limited. What is realistic and imaginable is so much determined and bounded by language, common 'truths' and a fear of seeming to be too unrealistic, too radical, too utopian.

Yet, we are now living in the paradoxical world where the utmost utopian thinking is that it is possible just to go on as usual. What we most need to do is to break away from inhibiting ideas of what is doable. In the words of Manfred Max-Neef in the first article, 'From knowledge to understanding', we must imagine what could have been in order to also free ourselves to imagine what could be. History is full of 'bifurcations' where choices were made and power played out in certain ways. History is not predetermined; we did not necessarily need to end up where we are today, and we have decisive choices to make. There is certainly a pluralism of very real options for the future. Some would take us to a more socially just and ecologi-cally sustainable world, while continuing along the current trajectory is likely to lead to disaster. Max-Neef challenges us to consider alter-native futures.

Praful Bidwai complements Max-Neef's historical overview with an article examining the confluence and convergence of fundamental-isms of various kinds and shows how they have, and still are, fore-closing much more sensible options. In making the case for increased pluralism, he shows how economic market fundamentalism has many times gone hand in hand with religious and ethnic fundamentalism.

In looking ahead Bidwai sees major challenges, but also openings that come from responses to the multiple crises provoked by these very trends of fundamentalism. With the financial crisis neoliberal market fundamentalism is shaken to its roots. Bidwai reflects: 'A question of crucial importance here is: how far can radical agendas be promoted in the current debate on holistic and integrated solutions to the global recession and the climate crisis? The real solution to the economic crisis lies in large-scale investment in public works programmes (a greatly expanded, globalised version of Roosevelt's New Deal). If these can be made to generate "green jobs" on a mass scale, this can simultaneously help resolve the climate crisis by putting the world on to a low-carbon trajectory.'

Global warming will undoubtedly create a more or less unlivable world unless we radically and quickly change course. To echo *What Now: Another Development*, 'structural transformation' of our societies is necessary. More of the same fossil-based, growth-obsessed development trajectory will unavoidably lead to disaster. Although climate change has been on the global agenda for a long time – the Climate Convention dates back to the Rio conference in 1992 – the sense of real crisis has only escalated in the last few years. And recent science indicates the situation is worse than we have thought. The radical and unexpected loss of summer ice in the Arctic is a striking warning of the kind of threshold effects that an increasingly unstable climate system is bound to deliver at an accelerating pace – even as a result of the momentum from existing emissions. Adding to this, we now see emissions levels that *greatly* exceed even the most pessimistic business-as-usual scenario of the International Panel on Climate Change (IPCC). The period 2007-2009 saw a record growth in global emissions of greenhouse gases, while it is clear that we in fact have to shift into a zero-carbon emission economy within only a few decades. On the current trajectory we are heading straight towards catastrophic global warming – a scenario that would be sure to break down all our societies and lead to infinite costs in human suffering, loss of biodiversity and economic collapse. We can no longer delay to tackle climate change effectively at its roots.

Yet, we must also realise that many of the responses and 'solutions' to the threat of climate change may be hugely problematic. On the one hand, climate panic may motivate risky 'techno-fix' solutions – 'geo-engineering' –including large-scale modifications of oceans to act as carbon sinks, of the atmosphere to increase the reflection of sunlight, and the design of new species to produce energy, sequester carbon dioxide and produce plastics from plants. The fear of moving beyond

disastrous 'tipping points' means that even respectable scientists talk in the language of gambling and are prepared to take enormous risks associated with these technologies.

Rather than jumping at quick-fix solutions, the belief systems and root causes driving the development and climate crises must be tackled. The over-optimistic trust in scientific progress and new technologies is one such belief – elaborated extensively within the *What Next* process and also discussed in several of the contributions in this issue. Another deep-rooted belief is in the virtue of markets and neoclassical economics as guiding principles for both understanding and governing our societies.

Rather than jumping at quick-fix solutions, the belief systems and root causes driving the development and climate crises must be tackled

Markets may be efficient in theory, but less so in practice. They are certainly not in themselves drivers of the necessary, deeper, structural transformations that challenge some of the most powerful and wealthy interests.

The last few decades of neoliberal dominance in economic thinking has certainly contributed greatly to both the crisis of justice and the crisis of nature, as pointed out by both Manfred Max-Neef and Praful Bidwai, and has effectively constrained the space for imaginative thinking about alternatives and options.

How come the language of neoclassical economics, and of neoliberalism in particular, have become so dominant despite its obvious shortcomings? How did carbon trading become hailed as a major tool to combat climate change so quickly?[1] How can it be that most of the world's decision-makers feel obliged to speak and argue in a language of economics and cost-benefit theory? At a 'What Next in Economics?' seminar co-organised with alternative economist Hazel Henderson a few years back, these and other crucial questions were tackled. From several days of intense discussions, the indoctrinating nature of economics teaching at most of the worlds' universities emerged as one key factor.

One of the participants at the meeting, Gilles Raveaud, now Professor of Economics at the Sorbonne, takes on this topic in the third article, 'Pluralism in Economics Teaching'. He tells the story of how he and other students and young academics revolted against what they perceived as 'indoctrination' and demanded pluralism and honesty in economics teaching. Through the formation of the 'Post-autistic

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1   See the *What Next* related publication 'Carbon Trading: A critical conversation on climate change, privatisation and power', *Development Dialogue* No 48, 2006.

economics network' of students and senior faculty members, they managed to bring the issue to the ministerial level in France, got new pluralistic economics courses in place, and challenged some of the dominant structures. Rather than presenting one particular school of thought and theory as fact, the focus should be on critical inquiry and problematisation through the application of real–life cases, Raveaud argues. The world economy needs to be radically transformed, and economics teaching is a key factor in this. Economics is not a single, precise science, but rather a set of tools and methodologies that are inherently normative and based on assumptions and preconditions that reflect different ideologies and worldviews. A humble, pluralistic approach is thus the most useful, and also the most respectful, for all involved.

The two articles that follow, by Vandana Shiva and Jorge Izhizawa, continue the discussion on knowledge and pluralism, and add cultural dimensions by looking to traditional, non–Western cultures, societies and knowledge systems. In their reflections they deliver a strong critique of mainstream economics thinking and the practice of the dominant Western science.[2]

Vandana Shiva shares her life's journey from the study of quantum physics to increasing engagement with local communities in their struggles for their local environment and livelihoods, and, for the last two decades, her consistent work on biodiversity and seeds both with local farmers and at the global advocacy level. For her, the profound local knowledge of people is a source of inspiration, learning and hope. The way forward means mutual learning and linking the local with the global. In her words:

> [C]onservation of diversity is, above all, the commitment to let alternatives flourish in society and nature, in economic systems and in knowledge systems. Cultivating and conserving diversity is no luxury in our times. It is a survival imperative, and the precondition for the freedom of all, big and small. In diversity, the smallest has a place and is significant.

Jorge Ishizawa elaborates further on the issues of knowledge and pluralism, reflecting on his and his colleagues' many years of work with communities in the central Andes. This work has been a humbling ex–

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2   For a thought-provoking reflection on the interplay between knowledge, science and markets, and challenges to both middle-class activists and others on the role of 'experts', see also the article 'Activists, Experts, Commons' by Larry Lohmann in *What Next Volume I*.

perience where he, his colleagues and students have realised the limi-
tations of their formal schooling and research, and become aware of
the difficulties of understanding and communicating across different
knowledge systems and worldviews – or 'cosmovisions'. The meth-
odology evolved in the work of Ishizawa's organisation PRATEC
involves recognition of the need for a new kind of epistemology –
the examination of origins, nature, methods and limits of knowledge
– that goes beyond the confines of its ordinary Western intellectual
tradition. In practical terms, the university-trained 'expert' who goes
into the field need to 'deprofessionalise' and 'decolonise' her/him-
self to become an 'accompanist' – 'or a "transductor", an intellectual
hinge, between cosmovisions' – who can relate to people in genuine,
non-paternalistic and mutually respectful ways.

> The challenge for accompanists trained in the Western intellectual
> tradition is to understand the basics of the other culture – that is,
> they must see the other and acknowledge the other's knowledge
> as valid. This demands that their spheres of knowledge encompass
> the other's, or at least that they acknowledge and respect that the
> latter exists in its own right. They must also endeavour to under-
> stand it from its roots. Hence, an epistemology for accompanying
> cultural affirmation should be oriented to support the elaboration
> of an interpretation of a cosmovision radically different from the
> modern Western cosmology – in this case, the cosmovision of the
> peasant nurturers of biocultural diversity. In this way this episte-
> mology can help make effective the possibility of mutual learn-
> ing.

The issue of science, technology and knowledge, and not least the
implications of new emerging technologies for society, has been at
the core of the *What Next* analyses since the inception of the project.
Already in 2001, the first international meeting with both civil soci-
ety activists and leading researchers met in Uppsala for a seminar co-
organised with RAFI (now ETC Group) entitled 'What Next? Tech-
nological Transformation: Addressing Nano-technology and Other
Emerging Technologies in the ETC Century'. During the course of
the work, scenarios considering societal implications of the conver-
gence of cutting-edge technologies such as biotechnology, nano-
chnology, information technology, synthetic biology and neural sci-
ence were explored and developed. A striking conclusion from these
years of work is that these technologies are being developed much
faster than first anticipated. A new industrial revolution is about to
take place, with huge impacts on the daily lives of all of us. This was
also the backdrop for the international civil society strategy seminar

The convergence of
cutting-edge technologies
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nanotechnology, information
technology, synthetic biology
and neural sciences take
place at an accelerating pace

'BANG: From What Next to What If – Toward a global CSO response to structural and technological convergence' which was held in the hills outside Montpellier, France, in November 2008. Organised jointly by the What Next Initiative, the ETC Group, and the French organisations BEDE and Fondation Sciences Citoyennes, the seminar gathered civil society activists from all continents and many different social movements and thematic areas.

One of several areas in focus is that of manipulation of humans through new technologies – 'human enhancement'. Gregor Wolbring, a biochemistry scientist and disability activist, who took part in both the 2001 and 2008 meetings, reflects in his article on the experience of disabled people and points to the slippery slope of 'human enhancement' and both the social and ethical implications of the increasing pressure to 'perfect' ourselves through new technologies available to those who can afford it. Where does this take us? What new divides within humanity will be created? What commercial interests are involved and how does this technological development influence our views of ourselves and what a 'normal' human is? Wolbring warns us that unless we learn to appreciate human pluralism, those now considering themselves 'normal' will soon find themselves effectively 'disabled', and in need of enhancement and technological fixes to match the new norm.

Wolbring outlines plausible, but – for many – frightening, scenarios and asks many difficult, disturbing, but important questions. Is the commercialisation of the human body and mind through 'enhancement' the final frontier for the kind of economic thinking and commodification problematised by Gilles Raveaud and Vandana Shiva earlier? Are there alternatives to the continued scientific and technological 'progress' along the present trajectory? Are there possible bifurcations, in the words of Max-Neef?

In the final contribution Wendy Harcourt, a feminist researcher and activist, rounds up much of the previous articles in her reflection on 'what next' for the global women's rights movement. Of major relevance to the previous articles on knowledge systems and human enhancement, she first reflects on the notion of 'body politics' and the Foucauldian concepts of 'biopolitics' and 'biopower' and their usefulness within a women's movement context. Thereafter she provides an insider's analysis of the different phases of the women's rights movement since the time of the Rio conference, ending with a number of both within-movement and external challenges.

Her contribution offers a number of insights into a social movement's various phases, successes and failures and thus responds to a crucial question of the *What Next* endeavour – 'How Next'? A premise already there at the beginning of the *What Next* project was the conviction that civil society has a critical role to play in steering the world towards a more equitable and sustainable place. All actors – governments, business, academia, media – have important roles to play, but little will happen unless concerned and organised citizens act, and act effectively and strategically, thereby pushing and moving the other actors. The women's movement has a crucial role to play in this agenda for transformation, but needs – as all movements do – to constantly evaluate its work and to consider 'what next' in terms of new challenges and a changing world.

There are no easy answers to the many pressing challenges facing humanity. We certainly need to be humble, but also to act swiftly. Beyond the obvious problems of hunger, environmental destruction and poverty there are many layers of challenges where 'solutions' may turn – or may already have turned – into new problems. We would do well to anticipate these potentially devastating trajectories and pitfalls and look for alternative paths that can take us to a decent and livable future. To do this requires unconventional thinking, and it certainly requires the consideration of a broad range of alternatives – a strong case for pluralism. This is what this *What Next* volume is all about. This is also the departure point for the new *What Next Initiative*.

NICLAS HÄLLSTRÖM, prior to joining the Dag Hammarskjöld Foundation in 1995, had a leading role in the founding and building-up of the Centre for Environment and Development Studies (Cemus), a student-initiated, interdisciplinary university department jointly run by Uppsala University and the Swedish University of Agricultural Sciences. As Associate Director of the Dag Hammarskjöld Foundation from 1995 to 2008, he was involved in all work areas of the Foundation. He initiated the *What Next* project, which he also coordinated until he left the Foundation in 2008. He is now taking this work further by pursuing *What Next* as an independent initiative, while also working on climate justice and development in preparation for the UN climate meeting in Copenhagen in December 2009; he is currently based at the Swedish Society for Nature Conservation.

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From knowledge to understanding – Navigations and returns

Manfred A. Max-Neef

Why are we where we are?

Life is an unending sequence of bifurcations. The decision I take implies all the decisions I did not take. The route I choose is part of all the routes I did not choose. Our life is inevitably a permanent choice of one among an infinity of ontological possibilities. The fact that I was at a given place, at a very precise moment in time, when a given situation occurred or a given person appeared, may have had a decisive effect on the rest of my life. A few minutes earlier or later, or a few metres away in any direction, might well have determined a different bifurcation and, hence, a completely different life. As the great Spanish philosopher José Ortega y Gasset pointed out: 'I am myself and my circumstances'.

What holds for individual lives, holds for communities and whole societies as well. The so called Western (Judeo-Christian) civilisation is the result of its own bifurcations. Those of us in Western societies are what we are, but we could also have been something we are not. Let us then revise some of the decisive bifurcations in this particular historical experience.

Some time during the 12th century, in Italy, a young man, named Giovanni Bernardone, while still very young and very rich, decided to radically change his life. As a result of his transformation, we remember him today under a different name: Francis of Assisi. Francis, when he referred to the world, spoke of Brother Sun and Sister Moon, of Brother Wolf, and of water, fire and trees, and people as his brothers and sisters as well. The world he described and felt was a world where love was not only possible but made sense and had a universal meaning.

Some time later, also in Italy, we hear the resounding voice of brilliant and astute Machiavelli, warning us that '[i]t is much safer to be feared than to be loved'. He also describes a world, but in addition he creates a world.

The world we have today is not that of Francis. It is the world of Machiavelli. Francis's philosophy was the route not navigated. The navigation we chose was that of Machiavelli, and inspired by it we have constructed our social, political and economic conceptions.

In 1487, another very young man, just 23 years of age, Francesco Pico della Mirandola, prepares himself for the public defence of his 900 theses about the concord between the different religions and philosophies. He refuses to enclose himself within the narrowness of just one doctrine. Convinced that truths are multiple, and never just one, he longs for a spiritual renewal that can reconcile humanity.

Some years later, as a fervent believer in absolute truth and in the possibilities of certainty, Francis Bacon invites us to torture Nature so that through the delivery of her secrets we can extract the Truth.

Again two worlds. One representing the route we navigated, and the other the route we did not navigate. We did not follow the way suggested by Pico della Mirandola. We opted to accept Bacon's invitation, and, thus, we continue applying his recipe with efficiency and enthusiasm. We continue torturing Nature in order to extract from her what we believe to be the truth.
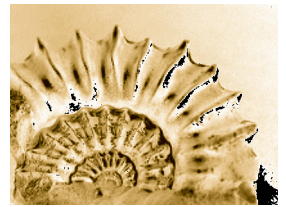
In the year 1600, Giordano Bruno burns at the stake, victim of his pantheism, since he believed that the Earth is life and has a soul. All things, for him, are manifestations of life. Everything is life.

Three decades later, Descartes whispers in his *Metaphysical Reflections*: 'Through my window, what I see are hats and coats covering automatic machines.'

We did not navigate the route of Giordano Bruno. We chose that of Descartes, and for that reason we have witnessed the triumph of mechanism and reductionism.

For Galileo and Newton the language of Nature is mathematics. Nothing is important in science that cannot be measured

For Galileo and Newton the language of Nature is mathematics. Nothing is important in science that cannot be measured. We and Nature, the observer and the observed, are separate entities. Science is the supreme manifestation of reason, and reason is the supreme attribute of the human being.

Goethe, whose scientific contributions have been (unjustly) overshadowed because of his colossal achievements in literature and the arts, felt upset with what he believed to be the limitations of New-

tonian physics. For Goethe, Jeremy Naydler explains, '...science is as much an inner path of spiritual development as it is a discipline aimed at accumulating knowledge of the physical world. It involves not only a rigorous training of our faculties of observation and thinking, but also of other human faculties which can attune us to the spiritual dimension that underlies and interpenetrates the physical: faculties such as feeling, imagination and intuition. Science, as Goethe conceived and practiced it, has as its highest goal the arousal of the feeling of wonder through *contemplative looking* (Anschauung), in which the scientist would come to see God in nature and nature in God.'[1]

Two worlds once more. Another bifurcation. We are still under the spell of the overpowering lustre of Galileo and Newton, and have chosen not to take Goethe's route. Feeling, intuition, consciousness and spirituality are still banished from the realm of science, some new enlightenment arising from the field of quantum physics notwithstanding. The teaching of conventional economics, which, as incredible as it may sound, claims to be 'value free', is a conspicuous case in point. A discipline where mathematics has become an end in itself instead of a tool, and where only that which can be measured is important, has generated models and interpretations that are theoretically attractive, but totally divorced from reality.

Johannes Brahms composed two piano concertos. Regardless of which of the two may be more to one's liking, the fascination is with the first. This concerto is a splendid exposition of the route Brahms finally decided not to navigate. We have been left for ever to wonder how the *other* Brahms might have been.

That's the way it is. A route not navigated remembered only by 'library worms', and a navigated route to which we attribute spectacular successes and achievements. The University in particular has chosen the routes of Machiavelli, Bacon, Descartes, Galileo and Newton. As far as Francis, Pico, Giordano Bruno and Goethe (the scientist) are concerned, they have remained historical footnotes.

As a result of the navigated route, we have managed to construct a world in which – as the Catalonian philosopher Jordi Pigem has suggested[2] – the Christian virtues such as faith, hope and charity, today manifest themselves metamorphosed as schizophrenia, depression and narcissism. The navigation, no doubt, has been fascinating and spec-

1   Naydler, Jeremy, *Goethe on Science*, p.23, Floris Books, UK, 2000.

2   Pigem, Jordi, *La Odisea de Occidente,* Editorial Kairós, Barcelona, Spain, 1993.

tacular. There is much in it to be admired. However, if schizophrenia, depression and narcissism are now the mirror of our existential reality, it is because all of a sudden we find ourselves in a world of confusion. In a world of disenchantment, where progress becomes paradoxical and absurd, and reality becomes so incomprehensible that we desperately seek refuge in a technology that offers us an escape into *virtual realities*.

Where are we now?

We have arrived at a point in our human evolution where we *know* a lot, but we *understand* very little. Our chosen navigation has been piloted by reason, leading into the port of knowledge. As such it has been an overwhelmingly successful navigation. We have never in all of our existence, accumulated more knowledge than during the last 100 years. We are celebrating the apotheosis of reason, but in the midst of such a splendid celebration we suddenly have the feeling that something is missing.

Yes, we can acquire knowledge about almost anything we want. We can, for instance, guided by our beloved scientific method, study everything there is, from theological, anthropological, sociological, psychological and even biochemical perspectives, about a human phenomenon called *love*. The result will be that we will *know* everything that can be known about love. But once we achieve that complete knowledge, we will sooner or later discover that that we will never *understand* love, unless we fall in love. We will realise that knowledge is not the road that leads to understanding, because the port of understanding is on another shore, and requires a different navigation. We will then be aware that we can only attempt to understand that of which we become a part. That understanding is the result of integration, while knowledge has been the result of detachment. That understanding is holistic, while knowledge is fragmented.

Knowledge is not the road that leads to understanding, because the port of understanding is on another shore, and requires a different navigation

At least we have reached a point at which, (many conventional academics notwithstanding), those of us who, in Goethe's perspective, are concerned with the relation between science and spirituality are finally becoming aware that knowledge is not enough, and that we have to learn how to attain understanding in order to achieve the completeness of our being and the completeness of our science.

We are, perhaps, beginning to realise that knowledge without understanding is hollow, and understanding without knowledge is incomplete. We therefore need to undertake, at last, the navigation we have

so far postponed. But in order to do so, we must face the great challenge of a language shift.

José Ortega y Gasset, the Spanish philosopher already mentioned, used to say that 'every generation has its theme'. We might add that, in addition, every generation, or historical period, is dominated by, or falls under the spell of, a particular language. That is the way it is, and there is nothing wrong with it, as long as the dominant language of a given period is coherent with the challenges of that period. The important thing to keep in mind is that language influences our perceptions and, hence, shapes our actions. Let us go through some examples.

During the first three centuries of the second millennium of Western civilisation, the dominant language was of a teleological nature, meaning that human actions had to be justified in terms of a calling that was superior and beyond the needs of every day life. That made possible the construction of the great cathedrals and monasteries, where time was not an issue. The construction would take 600 years – but so what! Nobody was in a hurry. After all, they were constructing for eternity, and eternity is not infinite time, but timelessness. Thank God that the language of 'efficiency' had not yet been invented. The importance lay in the deed and not in the time it might take. It was a case of coherence between language and historical challenge.

The language dominating the 19th century was basically that of the consolidation of the nation-state. The great speeches of political leaders such as Disraeli, Gladstone, Bismarck, are relevant examples. Without going into details, we may also say that the dominant language of the century was coherent with the challenges of the times.

It is only in the 20th century that the dominant language is that of economics, especially during the second half. A quick overview shows some interesting perspectives. The late 1920s and early 1930s, the time of the so-called Great Depression, coincides with the emergence of Keynesian economics. The Keynesian language is in many ways the result of a crisis, having the capacity of both interpreting the crisis as well as overcoming it. It is, again, a language (or rather sub-language) coherent with its historical period.

The next sub-language shift occurs during the 1950s and 1960s, with the emergence of the so-called developmental language. This was an optimistic, utopian and happy language. Economists writing in those days were mainly dominated by the feeling that, at last, we had dis-
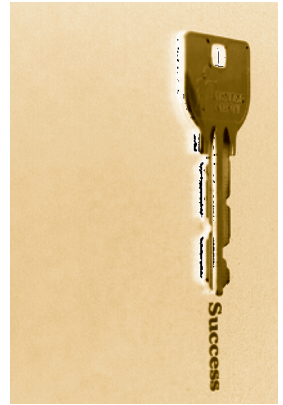
covered how to promote true development and overcome world poverty. For the purpose of our argumentation, it is unnecessary to reproduce the prescriptions here. However, what should be pointed out is that although the hoped-for goals were not fully achieved, many things during those decades changed in a positive manner. The language was, at least partially, coherent with its historical challenges.

And then came the last three decades of the 20th century, with the emergence of the neoliberal discourse. A language that is still dominating over a period in which global poverty has increased dramatically, the debt burden has crippled many national economies and generated brutal overexploitation of both people and natural resources, destruction of ecosystems and biodiversity has reached levels unknown in human history, and accumulation of financial wealth in ever fewer hands has reached obscene proportions. The disastrous effects of this language, which has absolutely no coherence with its historical challenges, are there to be seen by everyone, although decision-makers and holders of power prefer to look in the opposite direction, and hold on to a pseudo-religious concoction.

No matter how much we extend the concept of success, we are still incomplete beings, materially overdeveloped and spiritually poor

Where do we go from here?

We have a tendency to perceive ourselves as members of a successful culture. However, the truth is that no matter how much we extend the concept of success, we are still incomplete beings, materially overdeveloped and spiritually poor. And, most probably, it is that incompleteness, that poverty, which is responsible for the uneasiness and anxieties that permeate our existence in the world today. Perhaps the moment has arrived in which to pause and reflect. We have the opportunity now to analyse with true honesty the map of our navigation, with all its hazards and successes, with all its tragedies and glories. And then it may be wise to unearth the map of the alternative route, which we did not take, and see whether we can find in it orientations that can rescue us from our existential confusion.

As a consequence of the unearthing of the forgotten map, perhaps it would make sense that we start seeing brothers and sisters surrounding us. Perhaps it would be good to believe in the possibilities of harmony between many possible truths. Perhaps it would be to our advantage to dare to imagine and believe that the earth has a soul and that everything is life. Perhaps it would be good to realise that there is no reason whatsoever to banish intuition, spirituality and consciousness from the realm of science. Or, to put it in Goethe's words: 'If [we] would seek comfort in the whole, [we] must learn to discover

the whole in the smallest part,' because 'nothing is more consonant with Nature than that she puts into operation in the smallest detail that which she intends as a whole'.[3]

Our passionate pursuit of knowledge has postponed our navigation towards understanding. There should be nothing to impede the undertaking of such a navigation now, were it not for an economics which, as practised under the spell of the neoliberal discourse, increasingly distorts reality, thus contributing to our confusion and to the falsification of knowledge itself.

No sustainability (which obviously requires understanding) will or can be achieved without a profound language shift. We need a new language that opens the door of understanding; not a language of power and domination, but a language that emerges from the depth of our self-discovery, of discovering ourselves as an inseparable part of a whole that is the cradle of the miracle of life. If we manage to provoke such a shift, we may still experience the satisfaction of having brought about a new century worth living in.

Let us hope for a safe voyage and a fulfilling navigation towards the shores where we may become complete beings capable of understanding the completeness of life.

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3   See Naydler, Jeremy, *Goethe on Science*, p.92-93, Floris Books, UK, 2000.

The convergence of fundamentalisms and new political closures – What next in the struggle for pluralism?

Praful Bidwai

A centrally important phenomenon of the past two decades, and one that is likely to persist for some time in different parts of the world, is the rise of fundamentalism of various kinds, whether religious and ethnic, or cultural, racial and linguistic.[1] The impact of fundamentalism is evident in social relations and in new social fault-lines in and across many countries, in domestic and international politics, in national, regional and global balances of power, and in the many manifestations of violence around us – above all, in terrorism, of both the state and the non-state kind.

Ethnic and religious fundamentalism

Fundamentalist belief systems have been at the root of numerous forms of identity politics, or politics centred on particular identities, especially ethnic and religious ones. Identity politics burst explosively upon many parts of the world at the end of the 1980s, beginning with the former Soviet Union and other Warsaw Pact countries. As the Berlin Wall came down and the Eastern Bloc began to unravel, several countries of the Second World, earlier known for relatively well-knit societies and stable politics, experienced tectonic convulsions that rent them asunder.

Not only did the mighty USSR disintegrate into 15 different nations, but plural and multi-ethnic states like Czechoslovakia and Yugoslavia also broke up, in the latter case with catastrophic consequences that became most evident first in Bosnia and later in Kosovo. Within some of these societies, new forces of identity assertion, often violent, erupted, which increased in ferocity as the state ruthlessly repressed these movements.

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1   The term is used here as a convenient shorthand description rather than as an analytical category with unvarying characteristics or universal application. It is important to guard against a purely pejorative, rather than a neutral and descriptive, use of the term. It is even more vital to avoid its selective use – e.g. in respect of 'Islamic fundamentalism', when 'Christian fundamentalism' and 'Zionist' or 'Buddhist fundamentalism' are considered inappropriate and quaint.

The effects of the identity politics of the 1990s are felt even today in much of the (former) Second World – through the aftermath of bloody wars and near-genocidal violence, through continuing ethnic conflicts and through movements to secede from one nation in order to form a separate nation-state based on a specific ethnic-linguistic group.

In numerous countries of the Third World, recent manifestations of fundamentalism have been even more violent and destructive – witness Somalia, Rwanda, Sudan, Afghanistan, Pakistan, Zimbabwe, Democratic Republic of the Congo, Iraq, Bangladesh Guinea, Burma, Ethiopia and Sri Lanka The violent conflict between the Hutus and Tutsis of Rwanda led to as many as one million killings in the course of barely a year – a scale probably unmatched anywhere else in the world in recent times. Al-Qaeda, Osama bin Laden and the Taliban represent an especially violent, millenarian and apocalyptic form of Islamic fundamentalism. They regard Christians and Jews as their historic enemies who must be destroyed – no matter by what means, but preferably by military force targeted at non-combatant civilians. Pakistan has emerged as the global epicentre of *jehadi* terrorism, whose effects are felt not just in the neighbourhood – India witnessed a terrible episode of armed attacks in Mumbai on November 26-29, 2008 – but all over the world, especially in Western Europe and North America, not to speak of the Middle East and Southeast Asia.

Although less catastrophically violent, other forms of identity politics also driven by fundamentalism have claimed a heavy toll in societies as varied as India and Algeria, Iraq and Fiji, the Philippines and Sudan. This has arrested and aborted development, distorted and undermined democratic structures, and created deep insecurities among citizens.

Third World fundamentalisms erupted almost at the same time as the collapse of the USSR and coincided with the setback delivered to the project adopted in many newly liberated countries to create a plural, multi-ethnic, multi-cultural and socially egalitarian alternative to late capitalism. Although this seems like a mere coincidence, there was a causal link, as we shall see below, between Third World fundamentalisms and the ascendancy of neoliberal capitalism which took a triumphalist form following the collapse of the Soviet Union.

The First World has been no exception to the global trend reflected in the rise of identity politics based on religious, ethnic or racial fun-

Although the domestic manifestations of First World fundamentalism are not always violent, its overall global impact has been extremely destructive of peace and stability.

damentalism. On the contrary, it may have pioneered or preceded the trend – as suggested by the first (early 20th century) use of the term 'fundamentalism' to describe a Christian tendency in the United States, which believes in the literal interpretation of the Bible as the word of God.

Although the domestic manifestations of First World fundamentalism are not always violent, its overall global impact has been extremely destructive of peace and stability. In recent years, it has been both overtly and covertly violent. For instance, anti-Arab prejudice and Islamophobia played a definite role in many Western societies, especially in the US, in impelling the illegitimate use of military force against randomly selected Arab targets in the 1990s, well before the attacks on New York and Washington of September 11, 2001.

These prejudices certainly shaped the conduct of the war on Iraq and its occupation, which has already resulted in the deaths of over 100,000 civilians. In general, the hatreds and prejudices nurtured by Christian fundamentalism in the US have given a major push to the political Right's aggressiveness and encouraged American unilateralism and bellicosity.

The collective violence and vicious personal attacks unleashed by the xenophobic Far Right on ethnic minorities and immigrant workers in countries such as France, Germany, Britain and Italy have produced waves of fear and insecurity among these vulnerable groups. 'Counter-terrorist' operations and special security measures have created conditions conducive to the growth of racism and xenophobia in the European Union.[2] Equally, they have devalued democracy and the principle of equal citizenship rights in these countries. Besides anti-Black racism, the US is today marked by growing ethnic prejudice against the Hispanic and Arab minorities. (Samuel Huntington, of 'Clash of Civilisations' fame, has tried to give anti-Hispanic prejudice academic respectability by arguing that Spanish-speaking migrants threaten the very character and core-culture of the US.)

Western arrogance and faith in the intrinsic superiority of the Occident (or 'Christian civilisation') over the Third World (or Islamic and other 'civilisations') have greatly influenced the prevalent television-determined 'common-sense' views of ethnic conflicts from Somalia to Serbia – and hence the decisions of powerful governments about whether to and how to intervene to prevent large-scale bloodshed

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2   Please see the 2005 *Shadow Reports on Racism in Europe,* published by the European Network against Racism (www.enar-eu.org).

within the (deeply problematic) framework of the politics of 'human-itarian intervention'.

Even Tony Blair, former Prime Minister of 'multiculturalist' Britain, gave vent to his prejudice by saying that 'there's an arc of extrem-ism now stretching across West Asia and touching, with increasing definition, countries far outside that region', and that the West can only defeat this extremism by waging a war centred on 'values' – 'ours' versus 'theirs' – in addition to using conventional military tac-tics against it.[3]

It is perhaps in Israel, that intersection of the First and Third Worlds, that fundamentalism finds its most malign and blood-soaked expres-sion. There, extremist Zionism of the kind practised by the Likud and Kadima parties made a dual alliance with powerful forces in the US under the Bush administration: on the one hand, with neocon-servative fundamentalists of the Richard Perle–Paul Wolfowitz vari-ety, and on the other, with Christian Zionists.[4] The first alliance is deeply ideological and has a top-down, elite character. The second is more strategic and reaches out to the 'bottom' – to the considerable following, estimated at 50 million people, perhaps even more, that the Christian Zionists are believed to enjoy in the US.

This system of fundamentalist alliances is indispensable to under-standing the unique nature of state terrorism practised by Israel to

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3   Blair delivered himself of these remarks in his lecture on 'Future Foreign Policy' at the Los Angeles World Affairs Council on 1 August 2006. He said: 'What is happening today out in West Asia, in Afghanistan and beyond is an elemental struggle about the values that will shape our future. It is in part a struggle between what I will call reactionary Islam and moderate, mainstream Islam. But its implications go far wider. We are fighting a war, but not just against terrorism but about how the world should govern itself in the early 21st century, about global values... Whatever the outward manifestation at any one time – in Lebanon, in Gaza, in Iraq and add to that in Afghanistan, in Kashmir, in a host of other nations including now some in Africa – it is a global fight about global values; it is about modernisation, within Islam and outside of it; it is about whether our value system can be shown to be sufficiently robust, true, principled and appealing that it beats theirs... This is not just about security or military tactics. It is about hearts and minds, about inspiring people, persuading them, showing them what our values at their best stand for.'

4   Christian Zionism is a theological doctrine which holds that God himself gave the land of Israel (Biblical or Eretz Israel, or Greater Israel, that is) to the Jewish tribes. Hence the Zionist project to establish Greater Israel (including Judea and Samaria, which comprise the present-day West Bank) must be unconditionally supported, regardless of the means used. The establishment of such a Jewish state will hasten Jesus Christ's return to Earth. Thereafter, however, Christians and Jews part ways. Either the Jews convert to Christianity, or they will burn in hell. Armageddon will follow, in which no non-believer will be spared. Good Christians will of course go to Heaven! Jesus will personally take them there.

perpetuate its illegal occupation of Palestinian land by brutalising the Palestinian people, impoverishing them and otherwise victimising them in every conceivable manner. Without the strong, uncritical ideological-political support of the Christian Zionists, it is doubtful whether Ariel Sharon and Ehud Olmert could have gone as far as they did in their project to construct the Apartheid Wall – in flagrant violation of international law and elementary democratic norms – and to break up Palestinian land into a series of Bantustans, and to put an end to 'the dream', as Sharon put it, of Palestinian nationhood itself.

Nor would Israel's new government, led by Likud's Binyamin Netanyahu, but including the extreme-Right's Avigdor Liberman as well as Labour's Ehud Barak, besides smaller religious ultra-conservative parties, have persisted with that project and hardened their resistance to a two-state solution.

Israel's month-long invasion of Lebanon in July-August 2006 clearly lacked the rationale of a *casus belli*. So did its month-long military campaign in Gaza in December 2008-January 2009. Both invasions visited extreme brutalities upon civilians.

The invasion of Lebanon was related to this larger project and Israel's desire to establish complete hegemony and supremacy in its entire neighbourhood. It is also not unrelated to the US campaign to weaken and isolate Syria, and more important, Iran, whose passive 'stooge' Hizbollah is wrongly depicted to be. Washington's refusal to restrain Israel from invading Lebanon was a shameful reminder of the US's complicity in Israel's bellicosity and continued occupation of Palestine. Even more deplorable was Washington's silence (in particular the silence of newly elected President Barack Obama) on the invasion and further brutalisation of Gaza, already one of the most impoverished and wretched places on earth.

It does not seem that the Obama administration is about to chart a new course on Israel-Palestine. The appointment of George Mitchell as the special envoy on the issue does not raise much hope; nor does the acceptance by many US officials of a number of premises as to what would constitute a just and fair settlement of the Palestinian question, including issues such as the right of return of refugees displaced in 1948, a land-for-peace agreement, and the fate of East Jerusalem. These premises favour Israel, or rather the Zionist agenda, and are loaded against the cause of Palestsinian statehood.

Non-religious fundamentalism

The sources of these different fundamentalisms related to Christianity, Islam and Judaism are divergent, although many of these derive a degree of rationalisation from religious belief.[5] But there are *non-religious fundamentalisms* too. Over the past quarter-century, these have registered impressive growth in different parts of the world, and especially in the former Second World comprising post-Communist societies.

In the post-Communist countries, there is a strong and fairly straightforward correlation or equation between the collapse of 'actually existing' socialisms, the disintegration of the ideological-political cement binding different social strata and ethnic groups, and the sudden, dramatic coming to the fore of ethnic-linguistic-religious identities. A major factor in this disintegration has been the rapid, indeed explosive, growth of individualism and individualistic identity-assertion.

Collectivist ideologies and heavy-handed state practices had long tried to suppress or ignore individual identities, rights and concerns as well as religion and religious institutions in formerly Communist societies. As their regimes came apart after the collapse of the Berlin Wall in 1989, there was mass rejection of collectivism and an embrace of both individualism and all kinds of religions and religious cults. A variation on this was the sudden political decompression that occurred post-1991, which created the possibility for certain oppressed ethnic minorities such as the Chechens to break free of old, unequal political arrangements and form their own states or autonomous units within existing state structures. Many states of the former USSR – in particular, Russia and Georgia – have tried to suppress such ethnic

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5   Strictly speaking, religious fundamentalism may itself be a bit of a misnomer, in the sense that its problematique is not so much about religion as about society and the *polis,* the political community which makes decisions. It seeks to define the *polis* as a religious community. The new fundamentalists are not chiefly concerned about theological doctrines or religious beliefs. Rather, they aim to reorganise society along the lines of arbitrarily drawn up models or schemes. Often, but not always, this model is based on some fanciful imagining and ascription of what it is to be a 'true' Christian or Muslim, or to be religiously 'pure' – for instance, the notion that women should keep out of public life and must wear the *hijab* when stepping out of the home.

Whatever the content and validity of their reference to religion, the fundamentalists reinterpret and redefine theological doctrines with a definite purpose: namely, to radically reorder *society* by imposing their beliefs upon all its members, whether 'true' believers or not. The revolutionary character of their project lies in its central objective: to bring about retrograde and despotic *social* change, not in the transformation of religion as such.

Russia and Georgia have tried to suppress ethnic aspirations by brute force, provoking hardline and fundamentalist reactions

aspirations by brute force, provoking hardline and fundamentalist reactions.

Fundamentalisms in the post-Communist states may have relatively straightforward, direct origins. But their evolution could get enormously complicated in the coming years thanks to the policy regimes being imposed upon most of these societies, including 'free-market' neoliberalism, wholesale opening-up to global capitalism, indiscriminate privatisation, and the wrenching social stresses that all these produce, not least through growing environmental crisis related to and part of global climate change. These stresses have been exacerbated by dislocations owing to the sudden expansion of US-style 'mass culture' and the absence of any socially anchoring values and belief systems among the youth in many of these societies.

Even the entry of some of these states (mainly of Central Europe) into the European Union, and the economic aid they stand to receive by virtue of their EU membership, may not relieve the stresses adequately. These 'societies in transition' may remain a fertile ground for the growth of exclusivist and fundamentalist forces for many years to come.

Fundamentalism in the Global South

The causes behind the growth of fundamental tendencies in the less developed Third World or Global South are more numerous and complex. In this millennium, these are perhaps easiest to explain in the case of Islamic extremism. This derives its legitimacy from the history of hostility and bellicosity of successive governments of the West, in particular, the United States, towards Arab (or Persian and other Middle Eastern) nationalisms and pan-Arabist and other secular movements, or towards governments sympathetic to socialism and economic nationalism. In the more recent past, political Islam has derived strength from the grossly unjust war on Iraq and the country's occupation, and from Washington's criminal complicity with Israel's Zionists in preventing the establishment of a sovereign, viable Palestinian state.

These US Middle East policies are often rationalised at the popular level, if they are not driven by, the intense Islamophobia and prejudice

against Muslims and the Arab peoples that is prevalent in America.[6] But the roots of the prejudice go back much further than the 1990s. In any case, the phenomenon of fundamentalism in the Middle East is by no stretch of the imagination confined to Islamic extremism.

Failing states, the failure of development and neoliberal globalisation

It is best to comprehend the causes of the growth of fundamentalism in the Global South through three clusters of factors: the weakening of the authority and legitimacy of the state because of the general failure or 'arresting' of, or general crisis of, development; an undermining of cohering and binding factors such as secular ideologies in many countries, which were associated with their earlier development models and which are now themselves in crisis and have proved ecologically unsustainable; and the social disruptions, dislocations and popular disempowerment produced by economic neoliberalism in many countries.

More than 120 countries of the world have been through some variant or other of 'Washington Consensus'-driven policy regimes, such as World Bank-imposed Structural Adjustment Programmes or International Monetary Fund-imposed 'austerity' measures. And only a slightly smaller number have had to support the Fund/Bank-endorsed PRSP (Poverty Reduction Strategy Paper).

The three clusters are closely related to and often interact with one another. They also reinforce one another. For instance, neoliberal globalisation is among the main causes of a deepening of the crisis of development in many Southern countries. The conceptual framework within which neoliberal policies are conceived and implemented often clashes with the cohering ideologies of the state and society. Such ideologies or models include progressive nationalism, national self-reliance, *Ujamaa*, decentralised, community-based social organisation, and development based on people's needs and participation.

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6   For instance, an August 2006 poll of 1,007 Americans showed strong anti-Muslim feeling. Thirty-nine per cent of respondents in the sample said they felt at least some prejudice against Muslims. The same percentage favoured requiring Muslims, including US citizens, to carry a special ID 'as a means of preventing terrorist attacks in the US'. About one-third said US Muslims were sympathetic to al-Qaeda, and 22 per cent said they wouldn't want Muslims as neighbours. American Muslims have been the victims of such prejudice and have suffered mentally as a result of verbal harassment and discrimination. According to a study of 611 adults by a Yale University psychologist, Arab-Americans had much worse mental health than Americans overall. About half had symptoms of clinical depression, compared with 20 per cent in an average US group. Muslims made up 70 per cent of the study's participants.

Similarly, corruption is a serious problem in most Third World countries, which both undermines the legitimacy of the state and prevents it from providing services to the people. It is nevertheless useful to distinguish between these clusters.

The crisis of authority of the state, itself related to the crisis of 'bourgeois developmentalism' or traditional top-down economic policies which aim (but often fail) to generate growth and prosperity, is widespread through the Global South. Indeed, it now takes the form of the failed or failing state, which is dysfunctional, internally incoherent and cannot provide even minimal public services to the population.

It is a reasonable guess that about half the world's 190-odd nations fit the description, 'failing or failed state'.[7] These states are viciously predatory upon their peoples, and act as debt collectors on behalf of international finance capital. Their policies aggravate poverty, deprivation and social disparities and create social discontent and conflict. To deal with the latter, they resort to the use of armed force and social repression. In recent years, such states' military expenditures have grown to gargantuan proportions under a proliferating obsession with 'national security', itself defined in largely, if not solely, military terms, and further legitimised by the Global War on Terrorism (GWOT) launched by George W. Bush in September 2001.

Global War on Terrorism (GWOT) launched by George W. Bush in September 2001

All these phenomena together spell *less* human security, understood comprehensively as food security, security of employment and income, gender security, environmental security, personal security, guarantees of citizens' rights and entitlements, and a degree of social cohesion. Social cohesion is itself related to a broad social consensus and a sense of sharing a common national vision and a collective project. Heightened human insecurity, fear, paranoia and visible signs of disintegration of social cohesion prepare a fertile ground for the growth of social discontent and of violent means of resolving its causes. This creates conditions propitious for the rise of religious-ethnic fundamentalism.

Processes eroding the authority of the state have been at work in many Southern countries for 30 years, even longer. What has accelerated them, and at the same time detracted from the appeal of the universalist ideas on which their once-prevalent ideologies of social

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7   This is discussed at length in my article 'From What Now to What Next: Reflections on three decades of international politics and development', published in *Development Dialogue* No. 47, entitled 'What Next: Setting the context', Dag Hammarskjöld Foundation, Uppsala.

cohesion were based, is the proliferation among their social elites of crude notions such as 'greed is good', 'markets are always right' and 'governments are almost always wrong'. These notions tend to displace and discredit all ideologies promoting the public good and the possibility of individuals acting less selfishly.

Finally, social discontent is greatly exacerbated by unequal neoliberal globalisation. This has further widened North–South disparities, distorted terms of trade between industrial goods and primary commodities, and added to distress and deprivation in the Third World. Coupled with the trade barriers raised by the North and other economic processes which have impoverished large numbers of Southern people, the overall effect of corporate-led globalisation has been devastating. This often produces a strong, parochial and chauvinist-nationalist reaction in the South. Fundamentalists are ideally placed to tap this vein of discontent by appealing to crassly nationalist sentiments, nativism, revanchism, and illiberal, intolerant and hate-driven anti–West ideologies.

Fundamentalist demagoguery typically takes the form of demonising 'Western-Christian' identities – and hence Northern states and peoples – in a sweeping manner.

Fundamentalist demagoguery typically takes the form of demonising 'Western-Christian' identities – and hence Northern states and peoples – in a sweeping manner. Within this demonology, it is not globalised capitalism in its neoliberal *avatar* that is the villain, but the West – with its hegemonistic designs upon the Third World's resources – and its Southern allies. The latter are depicted as evil and sinful because they have abandoned their 'true' religious (Muslim, Hindu, or whatever) beliefs and identities, and deviated from the 'pure' practices prescribed by the scriptures.

This 'Fall from Glory' – and not lack of democracy, participatory governance or state legitimacy, and/or growing economic and social inequality and disempowerment of a majority of the people – is seen as the root cause of the ills that afflict Southern societies. These societies must be 'liberated' through a religious struggle for 'self-purification' and a return to the fundamental tenets of their 'true' faith.

Economic fundamentalism

Competing with such religious and ethnic-nationalist fundamentalism, and often aggravating it, is thus the fundamentalism of 'free market' dogma'. This *economic fundamentalism* underlies the dominant policies and practices in many countries. It is based on a one-size-fits-all approach: the market is an infallible guide to all economic strategy;

it is sacrosanct; and investor interest must prevail over the public interest.

The market-fundamentalist dogma, pioneered in Thatcherite-Reaganite policies in the 1980s, and copied in countless countries since, derives from the work of the Austrian economist Friederich von Hayek. This is an extremist sub-school of the neoclassical school of economics, which in turn is one of many schools of economic thought. It is blind to the very possibility of market failure, and regards all state intervention as anathema – the *Road to Serfdom* (the title of Hayek's famous book). This theory prescribes a developmental model based on pure, unadulterated subservience to the interests of capital, unfettered trade, and total freedom for private enterprise – in *all* situations and circumstances.

The theory stands in complete and consistent violation of the actual historical experience of economic growth and development for the past three-and-a-half centuries. No country – whether Imperial Britain, the United States between the late 19th century and the Second World War, or Germany and Japan after the War, or the Asian Tigers in the 1970s and 1980s – has ever developed without a degree of protection for its nascent industries, and some form of state intervention in technology promotion, in international and domestic trade, or in distribution of assets and incomes. Efforts to dominate, overrule and regulate the market and to 'discipline' capital have been crucial to achieving rapid economic growth and even more to ensuring its equal and sustainable distribution.

Reliance on the market and on unbounded freedom for capital have been at the root of the grave crisis facing humanity in the shape of dangerous climate change. This alone should be enough to discredit the neoliberal ideology – and solutions to the climate crisis based mainly on market-driven mechanisms like carbon trading.

The reason why neoliberal dogma has acquired the currency it has has little to do with its intrinsic merit or even its acceptance among mainstream economists. Rather, market fundamentalism has proliferated rapidly over the past quarter-century because it was embraced by powerful international financial institutions and hegemonic states like the US, propagated by right-wing foundations and think-tanks, and most important, because it was *imposed* upon government after government.

Fundamentalist counter-reactions

Yet, market fundamentalism provokes a reaction to itself in many Southern countries – both from sections of the domestic elite, and more importantly, from their dispossessed peoples. In the absence of popular mobilisation based on equity and humanistic ideologies and politics, the reaction becomes amenable to manipulation and exploitation by ultra-nationalists and fundamentalists of all descriptions.

This potent combination of factors has been at work, for example, in India, where it took the form of ethnic-Hindu exclusivism, or the ideology and politics of *Hindutva* (literally, 'Hinduness'). This political current grew especially rapidly after the mid-1980s thanks to a skilfully organised hate-campaign directed at a 16th century mosque in Ayodhya in Uttar Pradesh, which was presented as a symbol of Muslim 'conquest' and 'humiliation' of 'Hindu India'. The campaign's organisers claimed, without evidence, that the mosque was built at a site where a Hindu temple once stood and was destroyed by a Moghul army. The context for the rise of *Hindutva* was set by an ideological vacuum left by the decline (until recently) of centrist parties like the Indian National Congress, and of the Left.

The context for the rise of Hindutva was set by an ideological vacuum left by the decline of centrist parties

The *Hindutva* forces, headed by the Bharatiya Janata Party (BJP), came to power nationally in a coalition in 1998 on a platform which sought to reshape Indian politics by overcentralising it on the basis of a 'one nation, one people, one law, one culture' ideology, a form of Hindu majoritarianism and an aggressive, atavistic, narrow-minded nationalism.

The BJP-led coalition followed a strong pro-business and pro-globalisation policy orientation, with all the enthusiasm of a new convert. It tried to establish a 'strategic partnership' with the US, overthrowing the independent and non-aligned foundations of India's foreign policy. The BJP glorified India's ancient past – to claim that India is quintessentially Hindu, and that the religious-ethnic minorities must defer to the primacy of the Hindus. Indeed, they must accept that they are 'outsiders' who came to India as invaders and conquerors. They must apologise for the past.

The BJP and its associates forged a strategy to privilege a small group of people (upper-caste Hindus) by virtue of their religion and the ritual 'purity' of their status within the religious hierarchy. The BJP's aim was to politically disenfranchise the non-Hindus and turn them into second-class citizens. Under its project, sections of India's religious and social minorities, comprising over 250 million people,

would be effectively excluded from political participation and prevented from shaping Indian society or managing its affairs.

The most egregious instance of the BJP's anti-minority politics was a bloody pogrom of Muslims in Gujarat, in which 2,000 people were butchered in February-April 2002 with the complicity and approval of the BJP-ruled state government. This was a grievous, organised, ruthlessly executed assault on democracy and the very idea of India's multi-cultural, multi-ethnic and multi-religious identity. Seven years on, justice continues to elude the victims of the pogrom.

The BJP and its even more extremist cohorts such as the Vishwa Hindu Parishad (World Hindu Council) did not quite accomplish their mission although they left a trail of destruction in numerous political, administrative, educational and cultural institutions. In recent years, they have been targeting India's Christians, a minority of just over 2 per cent in the population, by branding them as "foreigners" although Christianity in India goes back to the first century AD. Their depredations contiuue both in the states where the BJP is in power and elsewhere.

Mercifully, the worst of this terrible, dark phase in Indian politics ended with the Parliamentary elections of 2004, when the Indian people threw the BJP and its allies out of power in a forceful assertion of pluralism, secularism, the centrality of the poor, and issues of distributive justice. The rationale for this vote was a rejection of neoliberal policies as well as of Hindu majoritarianism. But the Manmohan Singh government continued to follow conservative neoliberal policies and failed to reassert the secular agenda with adequate force. It is not clear how the next government will conduct itself after the April-May 2009 parliamentary elections where the United Progressive Alliance and Manmohan Singh managed to get re-elected. The danger of Hindu-communal fundamentalism has certainly not vanished. The phenomenon continues to menace India and complicate her relations with neighbours. India is not the only case of confluence or a tight fit between religious fundamentalism and neoliberal globalisation. Many other countries have witnessed similar processes (for example, Saudi Arabia, Indonesia, the Philippines). But equally important is the *opposite process*, in which fundamentalism exploits public sentiments *against* globalisation. This is precisely how many radical Islamicists position themselves in the Arab world and in South Asia.

Islam – and many Muslim-majority countries – falls in a special category. For many Western, especially American, ideologues, Islam is

a very special villain. After the end of the Cold War, they needed, and started looking for, new enemies to replace Communism, which had been a binding target legitimising the Western war machine, the 'Pentagon system' and much else in the prevalent world order based on a skewed distribution of power favouring the US. This search soon focused on Islam – much in the manner of the medieval Crusades.

Islam was now declared to be the bearer of a 'civilisation' which is in interminable conflict with the West's Judeo-Christian 'ethos'. Islam was demonised, indeed it continues to be demonised, as fundamentally intolerant, doctrinaire, rigid and anti-pluralist. Muslims cannot be at peace with democracy and all the great 'values' the West stands for. Thus, Osama bin Laden is not only a diabolical figure who as al-Qaeda's head planned and directed the terrorist attacks of September 2001. He is also the stereotypical Muslim perpetually at war with the West.

Islam continues to be demonised as fundamentally intolerant, doctrinaire, rigid and anti-pluralist

This barrage of Western propaganda, disseminated by tele-evangelists and even 'strategic experts', has produced a sense of victimisation and injustice among millions of Muslims, regardless of nationality, location and social circumstances. Former President Bush further compounded the problem through the occupation of Iraq and Washington's Israel policy. The terrible injustices suffered by the Iraqi people, and especially the exposure of revolting forms of sexual torture in the Abu Ghraib prison, have convinced millions of Muslims the world over that they have no alternative but to oppose and fight the world's sole superpower and the West's self-proclaimed leader.

Fundamentalism in the First World bears great *continuity* both with colonial notions of domination and the White Man's inherent superiority, and the 20th century's Extreme-Right traditions such as racism and fascism. But it is also marked by *discontinuity* of a new kind. This lies in the legitimation crisis of the state in the advanced capitalist countries, to which the goals of equity/shared prosperity, redistributive justice and social cohesion were once extremely important. The goals seemed realisable during the Golden Age of Capitalism (1945-75). Since then, particularly since the early 1990s, a highly dualistic neoliberal model of capital accumulation has replaced the old paradigm. The new model creates and aggravates terrible iniquities and disparities, tolerates high levels of chronic unemployment and deprivation, and destroys social cohesion, indeed any idea of citizens' common or collective stake in a shared project.

This model has produced disorientation and unhingeing of people from their old belief systems and encouraged irrational atavistic values and exclusivist politics. It also helps the fundamentalists develop and refine their own toxic brand of hypernationalism in opposition to the hollow globalism or cosmopolitanism of neoliberalism.

In the US, fundamentalism, whether of the Christian or Christian-Zionist variety, or of the racist and ethnic-chauvinist kind, has become inseparable from the project of constituting a US-dominated Empire. This lethal combination has had a profoundly debilitating impact on democracy in general and civil liberties in particular through the PATRIOT Act, illegal detention of terror suspects and intrusive surveillance of citizens' activities. In the US, social cohesion was always weak. It has been further eroded by authoritarian policies and draconian measures instituted after September 11, 2001.

Some of these tendencies are getting transposed to Western Europe, where support for Empire has driven governments in Britain, Italy and (before the change of government) Spain to take extremely divisive and unpopular stands on Iraq. A number of European Union governments have colluded with the US in organising special 'renditions' of terrorism suspects through clandestine flights – in blatant breach of human rights and their own domestic laws.

To make matters worse, many countries in Europe have increasingly followed policies that result in economic dualism and loss of democratic control over economic processes. The 'democratic deficit' is growing by leaps and bounds in the West as a whole.

Convergence of fundamentalisms and political closures

The world is witnessing a powerful convergence among different kinds of fundamentalism. They feed on one another. Each furnishes a rationale for the existence of the others and strengthens them. The Islamic variant of fundamentalism has acquired particular virulence over the past few years – not least because of the US's direct interventions or its complicity in patently unjust and illegal actions especially in Palestine/Israel and in Iraq. Iraq and Palestine are the fulcrum around which the whole Islamic world will be reshaped in the coming decade and more.

US policy in the Middle East has deepened the sense of hurt and humiliation among ordinary Muslims (and non-Muslims too) who have no sympathy for Al-Qaeda and kindred organisations. Equally im-

portant are growing xenophobia, racism and anti-Islamic prejudice in the West.

The general political effect of fundamentalism everywhere is to further contract the pluralist-secular space and exclude more and more people from active participation in society and governance processes. But this only adds to the existing – and growing – political closures. There are many varieties of such closure: a shrinking of the space or areas amenable to public control, supervision and correction; severe erosion and degradation of democracy through rampant violations of citizens' social and economic rights as well as their civil and political rights; marginalisation of large numbers of people through neoliberal policies that exclude them from participation in economic processes; and a narrowing of social choices available to the public.

To start with, the nation–state as the pre-eminent space for decision-making about the economy and social priorities has been greatly enfeebled by neoliberal globalisation. Perhaps a majority of states of the world lack the resources to do anything positive for their citizens, including providing elementary services. Even more important, what is emerging is *market-driven politics*,[8] which substantially removes large chunks of decision-making possibilities from the public sphere altogether.

Parliaments and governments, however democratic, increasingly find themselves no longer able to decide or act on issues as varied as trade, health, intellectual property and patents, investment, labour rights, taxation, and stipulation of minimal local content in the manufacturing operations of multinational corporations, etc. Control over these domains is increasingly passing into the hands of the World Trade Organization or the World Bank-IMF, which are not democratically answerable to the public. Sometimes, control is subject to unequal bilateral or regional trade agreements such as NAFTA, which effectively displace national legislatures from their designated legitimate roles.

Erosion of the social and economic rights of people is a widespread and growing phenomenon. Even the Global North is becoming a 'one-third–two-thirds' society in which only a minority of the population is secure and has bright or good future prospects, another one-third faces a bleak future, and the rest hovers uncertainly in between. In many industrialised countries, the pruning of the welfare state and

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8   This term and some of the analysis is drawn from Leys, Colin, *Market-Driven Politics: Neoliberal Democracy and the Public Interest*, Verso, London, 2001.

Even the Global North is becoming a 'one-third–two-thirds' society in which only a minority of the population is secure

cutting back of entitlements and social benefits, coupled with loss of social opportunity, is producing levels of impoverishment which were unheard of in the post–War period. On top of this comes a sustained attack on political rights in the name of 'security' and fighting 'terrorism', including intrusive surveillance of citizens – a process rationalised by the United Nations Security Council, no less.

The third variety of political closure is attributable to the effects of neoliberalism on vulnerable social groups which are forced to compete on the marketplace, but cannot. Their economic marginalisation, and failure to fulfil the demand for conformity (especially in consumption patterns) effectively leads to their exclusion from the public sphere and politics altogether. This is reflected in falling rates of participation in elections in many countries (very pronounced in the US), and in general apathy towards politics itself.

The phenomenon is further compounded by a reduction of social choices in many areas. For instance, large numbers of people even in relatively affluent societies have no control over their savings and where these might be placed by governments or pension funds and banks. Growing political closures have corroded and compromised the legitimacy and credibility of a large number of governments the world over.

If all these processes proceed apace without let or hindrance, the world will assuredly and steadily become a progressively worse place to live in. Some of the greatest achievements of humanity – democracy, inclusiveness, pluralism, human rights, the rule of law, and respect for cultural diversity – will severely erode. So will security – understood both in conventional military and physical terms, or more comprehensively. Indeed, the 'Global War on Terrorism' launched in

September 2001 has made the world more, not less, insecure, unsafe, paranoid and vulnerable to yet more terrorism. The general prospect in this scenario is one of social retrogression, growing economic dualism, collapse of social solidarities, further growth and hardening of hierarchies, and steady descent into a Hobbesian state of being in which life is nasty, brutish and short.

What Next? Some hopeful signs

However, such a bleak scenario is by now means inevitable. Some of the processes and trends at work may change, some of them radically, if forces and institutions that have a stake in participatory, inclusive democracy, social rationality, and minimal decency in public life – and which base themselves on universal values of equality, justice and human dignity – assert themselves both internationally and nationally. These range from multilateral bodies and organisations within the UN system (which the US has tried to bypass), all the way to local government agencies and grassroots social movements. Crucial to such change is the role of national governments, political parties and civil society organisations that press for progressive changes in policy.

There are some signs that parties and governments closely associated with the negative trends of the recent past are losing legitimacy and support. This is especially true of the 'Anglo-Saxon *bloc*', which has been the main driving force behind these trends. Barack Obama's election in the US, on a platform that promised a better deal for the poor than raw predatory capitalism has to offer, and immense grassroots mobilisation among underprivileged communities and young people, raise new hopes.

Similarly, the global financial and economic crisis, the grimmest since 1929, has generated disillusionment the world over with economic neoliberalism and the free market, as nothing else has in recent decades. Nationalisation of failing corporations, unthinkable since the 1980s until now, is back on the agenda. People are in search of alternatives and radical, but practical, solutions to real problems. There is growing opposition to militarism, social exclusion, and racism and xenophobia. New anti-capitalist movements have come into being and are making their impact felt, as happened during the G-20 summit in London in April 2009.

If these processes gather momentum, they could bring about and contribute to significant changes at the local, national, regional and in-

ternational level through shifts in policies, social perceptions and ac-
cess to resources through which activists can mobilise public opinion.
These changes could reopen closing political spaces and help re-de-
mocratise society in radical ways.

A question of crucial importance here is: how far can radical agendas
be promoted in the current debate on holistic and integrated solutions
to the global recession and the climate crisis? The real solution to the
economic crisis lies in large-scale investment in public works pro-
grammes (a greatly expanded globalised version of Roosevelt's New
Deal). If these can be made to generate "green jobs" on a mass scale,
that can simultaneously help resolve the climate crisis by putting the
world on to a low-carbon trajectory.

Fortunately, some such countervailing tendencies are in sight – the
global justice movement, the growing peace movement, the ecology
movement (which is fighting for non-market approaches to prevent
climate change and for radical agendas at the Copenhagen confer-
ence in December 2009), civil society mobilisations on local, national
and international issues, as well as specifically anti-fundamentalist po-
litical campaigns which fight for pluralism and inclusivism. Perhaps
the most potent force would be the combined energies of the global
justice (including climate justice) and peace movements. Mobilising
them and harnessing them purposively to the agenda for radical trans-
formative change is one of the greatest challenges we face today.

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Pluralism in economics teaching – Why and how?[1]

Gilles Raveaud

> I think the textbooks are a scandal. I think to expose young impressionable minds to this scholastic exercise as though it said something about the real world, is a scandal…I don't know of any other science that purports to be talking about real world phenomena, where statements are regularly made that are blatantly contrary to fact.[2]
>
> Herbert Simon

What's wrong with economics teaching? The students' protests

In June 2000, a small group of French undergraduate students which I was to join launched a protest that became known worldwide.[3] Their main reason was simple: they were bored and frustrated. Having decided to study economics in order to understand the world they lived in, they had realised that they were not going to make it. This was not because they were poor students. Quite the contrary: they were students in prestigious French institutions, mainly the Ecole Normale Supérieure and the University of Paris 1 (the Sorbonne).

At first, we had a hard time articulating a precise critique of the courses we were attending. Everything seemed so wrong that we had no idea where to start. Also, it seemed presumptuous to throw away the theories for which the brightest economists are recognised. Who were we to criticise the 'queen of the social sciences', as economics

likes to call itself? We were angry, but we did not know how to articulate our protest.[4]

In such a situation, a few words from a legitimate professor can make all the difference in the world. We invited Bernard Guerrien, a Sorbonne professor and a fine specialist of the dominant economic theory, called 'neo-classical economics'. Guerrien, who is a provocative mind and person, made a great show. He convinced us that our critique was right…and that things were even worse than we thought![5] With the backing of this intellectual and emotional support, we decided to write an 'open letter' addressed to our teachers.[6]

The open letter raised three main lines of critique. First, we denounced the fact that 'the empirical side' of teaching was 'virtually non-existent'. For us, economics was dealing with 'imaginary worlds', not real ones. Of course, we knew that a theory has to detach itself from facts in order to be general. But as we pointed out, in the dominant economics teaching, theories 'rarely carry out the necessary return to the facts'.[7]

Second, we opposed the use of maths as 'an end in itself'. Although the open letter was cautious in indicating that we did not oppose the use of maths *per se*, this aspect of the critique was often misunderstood. For many, questioning the place of maths in economics teaching meant nothing less than questioning and, perhaps ultimately, get-
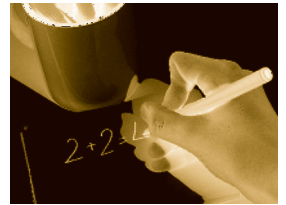
For many, questioning the place of maths in economics teaching meant nothing less than questioning and, perhaps ultimately, getting rid of the 'scientific nature' of economics.

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4   In fact, we were later to discover that a similar debate had taken place in the US. As the members of the Commission on Graduate Education in Economics (COGEE), created in 1988, put it: '…the Commission's fear is that graduate programs may be turning out a generation with too many idiots savants, skilled in technique but innocent of real economic issues' (Krueger, Anne O. et al.., 'Report of the Commission on Graduate Education in Economics', *Journal of Economic Literature*, 1991). The recommendations of the Commission were close to ours: less technique, more empirical work, and more creativity.

5   On the shortcomings of neo-classical theory, see the papers collected in Fullbrook, Edward (ed.), *A Student's Guide to What's Wrong in Economics*¸ London, Anthem Press, 2004.

6   This text and others can be read on the Post-Autistic Economics Network Website, managed by Edward Fullbrook: http://www.paecon.net.

7   A survey showed that, for the vast majority of PhD students, the knowledge of empirical facts was not useful for their research. See Davis, William L., 'Economists' perceptions of their own research: a survey of the profession', *American Journal of Economics and Sociology*, 1997.

ting rid of the 'scientific nature' of economics.[8] We said nothing of the kind. We simply meant that maths should be used to the extent that it is necessary, no more, no less. But saying this echoed a debate on the nature and role of mathematics within economics that has never been resolved. Thus, most of the commentators focused on this specific point, engaging in epistemological debates only loosely related to our protest.

Last, instead of the 'dogmatism', or one-sidedness, of the curriculum, we pleaded for 'pluralism'. In fact, the plurality of approaches was a central feature of many economic curricula not so long ago. In those years – when I was a student – economics students were exposed to, among others, the works of the classicists (Smith, Ricardo), the neo-classicists (Walras, Menger, Jevons) as well as those of Marx and Keynes. Then, teachers did not hide the permanency of conflicting views within economics. But those days are gone.

In fact, the field of economics today is still characterised by some pluralism. But as far as teaching is concerned, it is no longer presented as a multicolour field. All courses have the same grey colour of neo-classical economics – even if modern textbooks use fancy colours to present it.

Pluralism, pluralism, pluralism

For me, pluralism is the central issue. In fact, taking pluralism seriously would answer all our criticisms. First, engaging with debates and controversies would necessarily reduce the place of formal models because one would have to deal with the *ideas* developed by various economists, not only the mathematical *models* they have written down (or not) to express them. Second, questioning the relevance of different theories can hardly be done without looking at the facts.

On top of that, a pluralistic curriculum would actually be more, not less, theoretical than the current one. The current curriculum does not focus on theory, but on *technique*. Today, students spend hours calculating 'marginal rates of transformation', 'optimal inter-temporal allocation of resources' and 'equilibrium prices', but this does not lead them to understand what the underlying theory is. A curriculum that would systematically confront each theory with the others would force teachers to be more specific. In each case, they would have to

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8 As the French teachers opposing the students' protest made clear. Read their 'Contre appel pour préserver la scientificité de l'économie' ('counter-appeal to preserve the scientificity of economics'), *Le Monde,* 31 October 2000. On our website: www.mouv.eco.free.fr/doc/tcontre.pdf.

specify which assumptions are made, which mechanisms the theory focuses on, to which predictions these mechanisms lead, and so on.

Also, pluralism corresponds to what economics and, probably, any science, is – that is, a body of knowledge which has common elements among its members, but which is also moved by diverging orientations. Today, for instance, the majority of economists belong to the 'neo-classical paradigm' which stresses the efficiency of markets. But there are other economists who view things very differently. For instance, Keynesians emphasise the role of the state in ensuring that enough jobs are available; Marxists accord the priority to the process of capital accumulation, rather than the functioning of markets; feminist economists insist on the role of care and gift in the functioning of the economy; ecological economists point to the necessity of diminishing growth in order to preserve the planet; and so on.

Depending on the observer's epistemological stance and/or the question considered, these diverging points of view can either be considered temporary, until the right 'solution' is found, or permanent, as resulting from irreconcilable starting points and methods. But whatever the position taken, the fact is that these debates exist, even in academic journals. And newspapers remind us every day that economists diverge on many important issues.

In fact, the more important the issue, the more heated the debate. What are the causes of and cure for unemployment? Is free trade the answer to poverty in the South? What is the role of the state in the economy? How should the planet be preserved? All these questions find different answers from (serious) economists. And everybody knows it. So why should economics students be the only ones on earth to believe that these questions can be answered unambiguously within a single theoretical framework?

The peaceful world of mainstream reasoning

During private discussions with teachers who publicly opposed our petition, we were often left with a strange impression: our interlocutors often acknowledged the validity of our claims. In fact, most did. So why did they oppose our protest? Here, social pressure and conformity, widespread diseases as they are within the academy, provide the first reason for this strange behaviour. But there was a second reason: the appeal of mainstream economics.

What is mainstream economics? Contrary to what the reader may think, mainstream economics is not best described as an analysis of *existing* markets. In mainstream economics, believe it or not, there is no McDonald's, no advertising, no Alan Greenspan, no fashion, no hardship… Why? Because mainstream economics is about perfect markets.

What are perfect markets? They are markets where all firms produce the same good, and use the same techniques of production. Also, each firm is assumed to be 'small'. This assumption is crucial because it means that firms have no market power. That is, a firm *cannot* fix the price of the good it sells. Firms can neither increase their price (to increase their profits) nor diminish it (to kill the competition); the 'market' fixes it for them. In this environment, firms cannot make extra profits – that is, profits which are beyond the normal return on capital. In fact, as long as there are extra profits in a given industry (say, a rate of 8 per cent when the rate in other industries is 5 per cent), this gives an incentive to other firms to enter this industry. When they do, supply goes up, so prices and profits go down – and this goes on until profits are nil. In total, firms are entirely passive in this model: they do not set the price of their good, do not innovate, and cannot make a profit.

Moving out of the sphere of production and into the sphere of consumption, are consumers better apprehended by neo-classical economics? Not really. According to the standard theory, the consumer behaves in a very simple manner. He/she has 'preferences', which represent his/her taste. These preferences are entirely his or her own: they are not influenced by the consumption of other consumers – fashion and habit have no room in this model. Also, preferences are fixed: they do not vary over time.

Referring to 'preferences' to describe consumers' behaviour is one of the good tricks of mainstream economics. For when one uses the word 'preferences', one can no longer think in terms of constraints, hard choices, or poverty. Let's say you do not take out health insurance because you have to pay your rent? Well, that's your preference. You do not save for retirement because you pay for the education of your children? This is called 'preference for the present'. You are unemployed? You have a 'preference for leisure'. And so on. As one can see, this mode of reasoning is atomistic and individualistic. In this world, there are no such things as collective identities and collective choices, but only isolated individuals, each trying to 'maximise his/her utility', with no regard to the wellbeing of others.

Let's say you do not take out health insurance because you have to pay your rent? Well, that's your preference … such reasoning is atomistic and individualistic
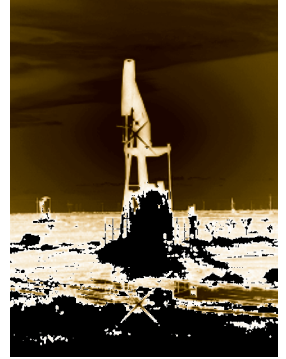
Also, the world of mainstream economics excludes the possibility of crises. Were any change coming from outside of the economy to disrupt it, the theory assumes that the market would deal with it efficiently.[9] Has oil become more scarce? This will lead to a higher price, which in turn will induce less consumption, changes in the production system, so that demand will go down and other energy resources will be used. Is there persistent unemployment? This is because real labour markets are not perfect, with unions, unemployment insurance, minimum wage regulations and the like preventing a full and immediate (downward) adjustment of the wage rate. That is, the solution to unemployment is perfectly competitive labour markets. Etcetera.

All this may sound surprising. So how come this approach has become the dominant one, if not the only one, in economics?

Mainstream economics
excludes the possibility
of crises

The two strengths of mainstream economics: market and science

The first asset of mainstream economics is its (implicit) ideology. This ideology is threefold. First, mainstream economics is a theory of a free individual operating in free markets. Second, mainstream economics is about efficiency. According to this view, markets, if not hampered, will deliver the greatest amounts of resources at the minimum cost.[10] Last, mainstream theory is about justice. Indeed, when perfect, markets are fair, as they reward individuals according to their contribution – the price others are willing to pay for your services being the measure of your social value. In total, markets allow individuals to obtain the best they can in an environment which promotes efficiency and equality of opportunity.

This ideology is in line with today's dominant representation of the individual in industrialised societies.[11] This representation of the individual is the main feature of mainstream economics and the first reason why it became so widespread.

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9   For mainstream economists, only decisions which respond to prices are directly part of the economic realm. Thus, natural resources, tastes, political systems, gender roles, technologies, and so on, are all said to be out of the economic system (they are 'exogenous').

10   This is so because competition forces firms to diminish their costs. To do so, firms will turn to the cheapest inputs – that is, they will use more of the relatively abundant input (for instance, if labour is abundant and capital scarce, they will use more labour). Also, the dynamic of competition forces firms to look for productivity gains – that is, to use fewer resources to produce more.

11   On this, read Marglin, Steve, *The Dismal Science. How Thinking Like an Economist Undermines Community*, Cambridge, Harvard University Press, 2008.

Still, I would like to stress another important feature of mainstream economics – that is, its 'scientific' nature. More precisely, I would argue that it is probably the combination of a market-oriented ideology and the use of 'scientific' tools that explains the enduring success of mainstream economics, despite the numerous critiques it has been exposed to since it emerged at the end of the 19th century.

An important 'scientific' strength of mainstream economics is its claim to universality. Neo-classical economists wanted to build an elegant, *general* theory of markets. Have they succeeded? Yes and no. Yes, in the sense that there exists a mathematical theory of how perfectly competitive markets function. According to this theory, under a set of limiting assumptions,[12] there exists a 'general equilibrium' in the economy – that is, for each good traded, it is possible to find a price at which quantities supplied and demanded are equal. It is for this theory that Gérard Debreu and Kenneth Arrow have been awarded the 'Nobel' prize in economic sciences, delivered by the Bank of Sweden.[13]

But no, in two crucial respects. First, Arrow and Debreu realised that the usual assumptions, such as perfectly competitive markets and self-interested behaviour, were not sufficient to demonstrate the existence of a general equilibrium. For this reason, they had to add supplementary assumptions. That is, in order to reach the conclusions they were after, mainstream economists had to make their model even more unrealistic.[14]

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12 The main assumptions are the following: perfect competition between firms; existence of markets for all present and future goods; existence of an auctioneer which collects the quantities supplied and demanded by each agent for each good at each possible price; 'endowment' available to households so that they can survive even if they do not participate in the market. (Other assumptions concern the shape of firms' production functions and households preferences in order to ensure the possibility of mathematical treatment).

13 The exact title is 'Bank of Sweden prize in economic sciences in memory of Alfred Nobel'. The prize was instituted 1968 by the Bank of Sweden and it is not delivered by the Nobel foundation, although widely perceived as a 'real' Nobel prize. According to three Swedish professors, 'The Nobel prize in economics diminishes the value of all other Nobel prizes' (*Dagens Nyheter*, 10 December 2004). Peter Nobel, descendant of Alfred Nobel, hopes that 'the Bank of Sweden Prize will be de-linked from the Nobel Prize.' (See Handerson, Hazel, 'Nobel prizes and the Bank of Sweden's game', October 2005, http://www.hazelhenderson.com/editorials/nobel_prizes_bank_of_sweden.html).

14 This is clearly the case of the 'endowment' hypothesis (see note 11). Arrow and Debreu introduced this assumption to ensure that demand would not suddenly stop when people do not have enough resources. But it is hard to imagine what the empirical counterpart of this 'technical' point in a free market economy could be.

Second and more importantly, Arrow and Debreu basically failed in their enterprise. Their aim was to calculate the value of the equilibrium the economy would converge to, if it worked under their assumptions. For this result to be meaningful, three conditions are to be observed: this equilibrium must exist; it must be unique; and the economy should converge towards it whatever its starting point. Arrow and Debreu succeeded with the first requirement – they did find an equilibrium. But they failed with the other two: they could not demonstrate that the equilibrium is unique, nor that the economy will reach it. Otherwise said, even within their highly restricted framework, true, there exists a general equilibrium of the 'economy' but…we have no way to know where it is! In fact, even the existence of the 'law of supply and demand' cannot be demonstrated in all generality in this framework.[15]

The current situation of economics–as–a–science is thus a strange one. True, economists have a (mathematical) theory of a perfect market system, but it suffers from two major defects. First, it corresponds to a very specific world, and, even within that world, the theory does not ensure that free markets will lead to an equilibrium. Of course, this questions the very relevance of neo-classical economics as a whole.[16]

Now, the thing is that this situation is in no way an accident. On the contrary, as I would like to show now, this theory is the only one that can be produced if one abides by the current rules of economics. By rules, I do not mean the specific assumptions we dealt with here, but the more general requirements one has to fulfil in order to be admitted within the economics profession. These rules are twofold: to start from the individual and to build an entirely consistent theory.

Micro-foundations and universality: science, or ideology?

The first requirement of contemporary economics is that any theory should be derived entirely from individuals, consumers and firms. Is this starting point arbitrary? Answering this question would lead us

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15   To have an idea of the reasons for this surprising result, one must have in mind that the prices of goods are also the revenue of individuals. So if the price of good *A* goes down, the revenue of the sellers of good *A* diminishes; this will lead them to diminish their consumption of all goods, including, possibly, good *A*. If this is this case, a lower price of good *A* leads to a lower demand – the contrary to the law of supply and demand.

16   See t he heated debate Bernard Guerrien launched in the *Post-Autistic Economic Review* No.12, 15 March 2002, with his 'Is There Anything Worth Keeping in Standard Microeconomics?'. Access the articles on http://www.paecon.net/PAEReview/index.htm.

into too long a story for the purpose of this article. Here, it may suffice to say that 30 years ago, a common approach in social sciences and economics was 'structuralism', a theory which focuses on the effects of structural elements, such as the family, the state, the social class, on the behaviour of the individual. Today, such 'deterministic', or 'holistic', theories have been abandoned. Why?

One can think of several reasons. First, these theories have been increasingly criticised as the behaviour of individuals has become more and more diverse. For instance, it is well known that even within the same social group, there are many different kinds of behaviour, such as in the case of, say, the type of music blue collar workers listen to. This first point of criticism has led to a second one: how could the researcher know which 'social group' to infer from the behaviour of the individuals? One can belong to the working class, but also be gay, live in the countryside, and so on.

Last, holistic analyses were put on the defensive when individualistic theories managed to explain a number of empirical phenomena better. For instance, the 2005 Bank of Sweden prize laureate, Thomas Schelling, provided an explanation of racial segregation in housing by referring only to the behaviour of utility-maximising individuals. Using a chessboard, Schelling demonstrated that even when people only wish to live in a neighbourhood where there is slight majority of people like them, this may result in complete segregation. Why is this? Think of yourself in this situation, when there are only two races: you do not mind people of the other race being around you, but you definitely want to have a majority of people of your race in your immediate neighbourhood. If everybody around you behaves the same, then it is very likely that your total segregation will result, despite the fact that everybody accepts the immediate presence of people from the other race in its vicinity.[17]

A puzzle game based on Schelling's segregation model

This analysis is important because in Schelling's model, segregation is no longer the consequence of deep-seated racism, but the unintended collective outcome of rational decisions taken by individuals. It is part of a now widespread method of analysis, called 'game theory' – for the use of which Schelling (along with Robert Aumann) received the Bank of Sweden prize in 2005. Because it can explain a wide range of phenomena through simplified assumptions and mechanisms, game theory is very popular nowadays, not only in economics but also in sociology, political science, etc. But game theory shares the un-social

17 Schelling, Thomas S. (1978), *Micromotives and Macrobehavior*, W. W. Norton and Co, N.Y.

character of neoclassical economics: in the case discussed here, posit-ing utility-maximisation as a 'black box' – that is, as independent of the wider social conceptions of the status and 'worth' of different eth-nic groups – is obviously a very limiting assumption.

All in all, these critiques, together with the general right-wing turn of political ideas that took place in the late 1970s/early 1980s, have convinced the vast majority of social scientists that the only scientific approach to social phenomena is to take the individual as the starting point. This is problematic, as it can be argued that this stance leads to two major shortcomings.

The first dead end of micro-based analysis is empirical: not to take into account the environment in which individuals are embedded, when dealing with empirical phenomena, amounts to a great loss of relevant information. To take Schelling's example, it is not the case that people make their choice in an abstract vacuum when they de-cide where to live. On the contrary, they are influenced by the coun-try they live in, the policies devised to counter racism and segrega-tion, their age, their occupation, and so on.

Second, I would argue that starting from the individual leads to a theoretical inconsistency. This is because there is no way to build a general theory based on the behaviour of *really* different people: how could you aggregate millions of different choices into a single, coher-ent explanatory framework? How, for instance, could you derive a 'consumption function' which would aggregate the billion of choices all American consumers make in a single day? This cannot be done. This impossibility has led mainstream economics to take another strange road. According to the most recent models, all individuals are posited as being *the same*. Worse, the economy is reduced to the be-haviour of…a single individual. Sure, this makes things easier for the theoretician. But what sense does it make? [18]

This situation is absurd. But my claim is that it is inescapable. There is no way one can avoid it when one wants to fulfil the three require-ments of modern mainstream economics: (i) explain aggregate out-comes; (ii) start from the individual; and (iii) proceed step by step from the individual to the global. Unfortunately, these three requirements are now engraved on the walls of economic departments all over the world. Taken together, they impose the building of theories which are at the same time simplistic in terms of ideas and complicated as regards

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18 Kirman, Alan P., 'Whom or what does the representative individual represent ?', *Journal of Economic Perspectives*, 1992.

the mathematical tools they use. Unfortunately, the disease created by economists has spread to other departments, starting with political science, where a critique very similar to ours developed in 2001.[19]

So, to sum up, contemporary mainstream economics is a very abstract and technically complicated theory that relies on over-simplistic and arbitrary assumptions. Obviously, if these features were better known, neo-classical theory could not be used as a very convincing support for market ideology.

But obviously it is possible *not* to say all this to students – as everyday economics teaching proves. There is another story which can be told: the 'supply and demand' story.

The market as our skyline?

The story – fairy tale? – told to students everywhere is a short and simple one. All you need to do is to introduce them to two marvels of the human mind: the supply curve and the demand curve. Let's take the case of the market for apples (see Figure 1). As the price goes up, producers will want to produce more and more, because they will make more profits. So we can draw the 'supply curve', which indicates that the higher the price, the bigger the quantity of apples produced.

On the other side, the more expensive the apples, the fewer people are going to buy them. So the 'demand curve' will go down when the price goes up. As the two lines go in opposite directions, they will necessarily cross at some point. This point is the equilibrium at the market: in the example below, 50 apples are exchanged at the price of 70 cents each (point *E*). One can see that it is only at this point that the number of apples bought is equal to the number of apples sold.

When the price is higher than 70 cents, producers are willing to produce and sell more, but apples are now too expensive for consumers. As a result, supply is greater than demand (there is *excess supply*). On the contrary, when the price is lower than 70 cents, consumers would like to buy more apples, but producing these extra apples is not profitable for apples producers. As a result, demand is greater than supply (*excess demand*).
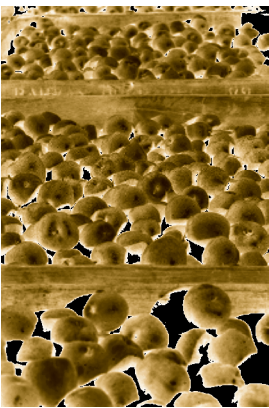
The case of the market for apples – an illustration of the 'supply and demand' story told to economics students

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19 Kurt Jacobsen, 'Perestroika in American Political Science', *Post-Autistic Economics Review,* No. 32, 5 July 2005, article 6, http://www.paecon.net/PAEReview/issue32/Jacobsen32.htm.

Quantity of apples

Excess demand: when the price is below 70 cents, more apples are demanded than the producers want to produce.

Excess supply: when the price is higher than 70 cents, more apples are produced than the consumers want to buy.

Number of apples supplied

E

100

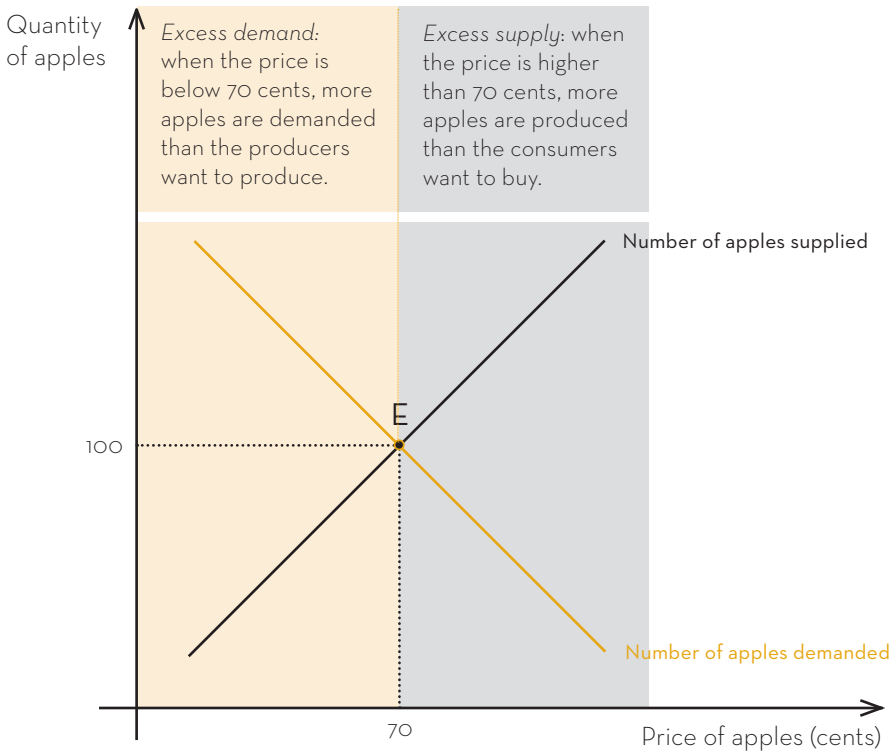Number of apples demanded

70

Price of apples (cents)

Figure 1 – The market for apples

The magic of the market is that only point *E* is sustainable: if the market is in any other situation, it will converge towards the equilibrium point. That is, if demand is greater than supply, then the price will go up. And if supply is greater than demand, then the price will go down. This is the 'law of supply and demand'.

And…that's it! If you have this graph in your mind, you know what economists have in mind when they are dealing with any problem. In effect, for mainstream economics, the mechanisms of supply and demand apply to any social phenomenon. You can apply them to any problem, whether it is the price of oil, health care or peas. Indeed, economists (and some sociologists) will nowadays refer to marriage as taking place on the 'market' for wives and husbands, or to the decision to have children as depending on the 'price' of children.[20]

Economists (and some sociologists) will nowadays refer to marriage as taking place on the 'market' for wives and husbands

20 This follows the works of Gary Becker, another laureate of the Bank of Sweden. His classic work is *The Economic Approach to Human Behavior*, University of Chicago Press, 1978.

This may initially seem odd, or even scandalous. Again, many students react strongly when introduced to these modes of reasoning. But teaching experience proves that after only a few weeks, even if they are not convinced, more and more students finally accept this way of seeing things. This is where the power of economics comes from. Mainstream economics is strong because it has managed to redefine any social problem in its wording. Whatever the problem, you are faced with scarcity: of jobs, of clean environment, of basic goods. In each case you can observe, or, if necessary, imagine, a supply and a demand side: people demand jobs, clean air, basic goods. Firms supply jobs, pollution and goods. With these three elements – scarcity, supply and demand – you have a market.

And with a market comes the price. The price is the magic wand of the economist: it will solve any problem you face. Let's take the example of unemployment. We will define unemployment as a deviation of the economy from full employment, the situation when the number of people looking for a job is equal to the number of jobs available. Let's call the people looking for a job the supply of labour and the firms offering jobs the demand for labour. There is full employment when supply is equal to demand. That is, in Figure 2 (below), full employment corresponds to point E, where 100 workers are employed at a wage of 70 cents an hour. Now, unemployment is the situation when there are too many people chasing too few jobs: that is, unemployment appears when the supply of labour is greater than the demand for labour. How can supply be greater than demand? There is one and only one answer to this question: when the price of labour is too high. For instance, at an hourly wage of 90 cents an hour, there would be 112 persons looking for a job, but only 87 jobs are available. As a result, 25 persons (112 minus 87) are unemployed.

So the lesson is clear: the *only* reason why there could be unemployment is that labour is too expensive for employers. Otherwise put, one has to diminish the cost of labour (wages + social security contributions and taxes) in order to resolve unemployment. In effect, when the price of labour goes down to 70 cents an hour, fewer people are willing to work, and more jobs are offered. That is, the supply of labour diminishes, while the demand increases. Thus, excess supply (=unemployment) gradually disappears as the economy moves towards the equilibrium (=full employment; point E).
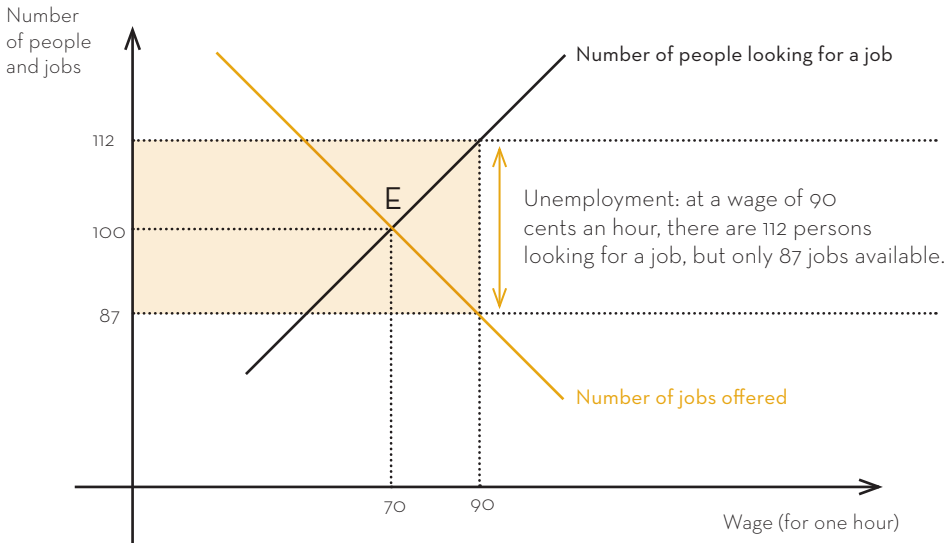
Figure 2 – Unemployment

So how can unemployment persist? According to mainstream econo-
mists, because a number of actors and institutions in the economy
prevent wages, taxes and social security contributions from falling:
unions defend high wages; the unemployed, the sick and the old ask
for social benefits; and politicians wants to levy taxes to achieve their
projects. All these actions create so-called 'imperfections' on the la-
bour market which, according to mainstream economists, are ulti-
mately the causes of the persistence of unemployment, notably in Eu-
rope.[21]

So making the labour market perfect is the agenda of mainstream econ-
omists. This is why they advocate the reduction of the minimum wage,
the diminution of unemployment benefits, the fight against unions, the
reduction in social security contributions and taxes, and so on. But, for
mainstream economists, perfect markets are not only the solution to
unemployment. They are the key to any and every issue society faces.
For instance, 'many economists believe that there would be large ben-
efits to allowing a free market for organs'.[22] This market will give an

21 For a critique of this view, read Howell, David (ed.), *Fighting Unemployment. The
    Limits of Free Market Orthodoxy*, Oxford, Oxford University Press, 2005. For an
    alternative explanation of unemployment in Europe, read Gérard Duménil and
    Dominique Levy, *Capital Resurgent. Roots of the Neoliberal Revolution,* Cambridge,
    Harvard University Press, 2004.

22 Mankiw, N. Gregory, *Principles of Economics*, Thomson South Western, 2004, p. 152

incentive to people with healthy organs to sell them, which will help to resolve the current shortage.[23] Similarly, the mainstream solution to pollution is not to forbid it, but to make firms pay for the right to pollute. This is why a market for 'rights to pollute' has been created in the framework of the Kyoto agreement on the reduction of greenhouse gas emissions. The idea with this market is that firms which pollute less will sell their excess rights to firms which pollute more. As a result, total pollution will be reduced, it is argued.[24]

As one can see, whatever the issue, the market is always the answer, according to mainstream economics. A problem can persist only under one of the three following situations: either the corresponding market has been forbidden by law (organs); human interventions fiddle with markets (unemployment); the market to solve the problem has not been invented yet (pollution). Yet as pointed out above, there is no proof out there that these solutions are the best available. Even the theory of markets developed by neo-classical economists cannot by itself sustain their claim that 'more and better markets' are the solution to just about everything. If the appeal of the market is so great, it is not so much for scientific reasons; it is for normative reasons.

Perfect competition is not the only model of mainstream economics

Perfect markets as the core of a just society?

Perfect competition is not the only model of mainstream economics. For instance, textbooks introduce students to 'monopolistic competition', the situation in which a few big firms sell products which differ only slightly. Monopolistic competition is probably a closer approximation of what is going on in many markets, in particular for consumer goods, than the 'perfect' competition between 'small' firms. Still, mainstream economists insist that *the* right model is perfect competition. It is this model which students have to have in mind when they analyse real economies.[25] Why do most economists do

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23 One may resist this argument on the grounds of fairness: with a market, only those that can pay can have an organ. But think of the current situation, in the case of kidneys. As Professor Gregory Mankiw puts it, 'Now, most of us walk around with an extra organ that we don't really need, while some of our fellow citizens are dying to get one. Is that fair?'.

24 For an extensive critical discussion on carbon trading see 'Carbon Trading: A critical conversation on climate change, privatisation and power', *Development Dialogue*, No. 48, Dag Hammarskjöld Foundation, Uppsala, 2006.

25 As Professor Mankiw puts it in his textbook (see note 23), 'It is true that many firms have some monopoly power. It is also true that their monopoly is usually limited. In these cases, we will not go far wrong assuming that firms operate in competitive markets, even if that is not precisely the case.' (p.340). One can see that, following Professor Mankiw's premises, we could just as well have concluded that we would not have gone far wrong assuming that firms operate in monopolistic markets.

this? A first possible answer is, again, the quest for scientism. As the words indicate, a model dealing with *im*perfect competition is less general than a model of *perfect* competition.

But this answer is not the whole story. Another reason why mainstream economists primarily refer to the model of perfect competition is that this model corresponds to an ideal situation. When competition is perfect, all actors in the economy are powerless. The price is imposed on all of them. Were a seller to wish to charge his or her consumers a higher price, he or she could not do it, because the consumers could immediately find another producer that sells at the market (lower) price. And were a consumer to wish to pay less, he or she could not do it either, because the producer would immediately find other consumers ready to pay the equilibrium (higher) price.

The producer would immediately find other consumers ready to pay the equilibrium (higher) price

Otherwise put, competition is not only a device which leads to more efficiency. It is also a just device, because it prevents any use of power by any participant in the market on any other participant. According to mainstream economists, widespread competition is similar to a perfect democracy in which no power, let alone any tyranny, can emerge. Everybody is submitted to the law of the equilibrium price which is the result of the decentralised interaction of millions of people – just as, in a democracy, everybody is submitted to the law of collective decisions.

Also, the goods that provide the most utility to the consumers will be more demanded, thus leading to a rise in price which will induce producers of other goods to switch their resources to the more demanded products. Similarly, when a resource becomes scarce, its price will rise, inducing consumers to save on it and/or to use substitutes. Thus the dynamic of the price system, if unimpaired, will permanently lead producers to produce the most demanded resources at the lowest possible cost. In total, the price appears as a kind of magic device which informs each of us of the relative scarcity of the goods we consume, as well as the preferences of our fellow consumers.

It is possible to expand on that line: if prices indicate scarcity and tastes, why should society use any other allocation device? How can we explain that some goods are – for the time being – not provided on a market?

There is a variety of reasons why some goods and services are not provided by the market. First, some goods may be seen as too important to be left to the market, as in the case of the army, education or
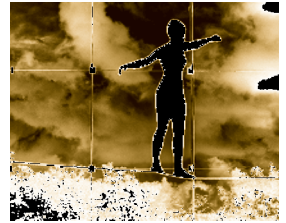
the environment. In fact, one could argue that our shared humanity should oblige us to make every possible effort to grant everyone access to health, education, transportation, culture, employment, and so on, especially when economies are rich enough to provide them.

In fact, in many developed countries, important redistribution and allocation schemes exist that favour access to some of these goods for a majority of citizens.

However, the support for these interventions seems to be diminishing by the day. Why is this case harder and harder to make today? What is so convincing about deregulation, competition and privatisation? Yet another story may help us to understand this.

Here comes the economist

In Swefrangermania, public services are under high pressure as a growing number of decision-makers want to privatise them. To these decision-makers, privatisation is the obvious solution to a number of current social problems: it will lead to the provision of better services at a lower cost. However, the population disapproves of these changes. In order to convince their electors, local political leaders invite a famous Harvard economist, Mr Inowatsgoodforyu, to discuss the issues with the people. On a Wednesday night, Mr Inowatsgoodforyu appears on a TV show. Miss Oïpola has been selected to put questions to him. She starts:

> – Mr Inowatsgoodforyu, it is an honour for me to have the possibility to discuss with you. As you know, there is a discussion in our country about the future of public services. Although they are far from perfect, these services work pretty well now, but many leaders want to privatise them. I do not understand that. Could you explain it to me?

> – Miss Oïpola, all the pleasure is mine. I understand your surprise: public services have existed for some decades now in Swefrangermania, they work all right, some of them are even among the best in the world, and all of a sudden, there is this urge for privatisation. Why is that? To address this, I think that the first point we need to agree on is that there is no such thing as a 'free' good. Even apparently free goods, such as primary schools, have a cost, which is paid through taxes.

> – Thank you, but I know that. What does that imply?

– This simple remark has far-reaching effects. As you may know, even in a rich country such as Swefrangermania, it is at present difficult to maintain the quality of public services: trains are running late, hospitals are more and more criticised, the pupils did not fare well in the latest international comparative study, etc. So Swefrangermania has to make choices. We would all like to have more and better roads, trains, schools, hospitals, museums, etc. But this is not possible. We have to choose between these priorities. How can we decide?

– Let me think… By deciding these priorities during elections.

– True, votes and democracy are a possibility. But, as you know, they are packed with imperfections: elections offer you the choice between two or three parties at most, you have no way to commit leaders to their promises, and any change leads to a mountain of protests and criticisms of all parties involved, etc. The truth is that the political system is better suited to immobility than to change. Don't you think?

– Sure, the system is not perfect, but it is the best I know. What do you propose? To have more parties, to make leaders accountable, to have a more efficient state?

– All of these are excellent suggestions. But I would turn to a more radical change. As I take it, the founding ideal of democracy is self-determination. Ideally, in a democracy, people decide by themselves for themselves. But in our current system, this is far from being the case: a few people decide for everybody else, and we all have to go where we are told to go. We cannot decide which school to send our children to, we have to queue at the same post office, we cannot escape the public hospital, in a word we have no choice.

– Right. But what do you propose instead? Direct democracy?

– In a sense, yes. We live in societies of well-informed people who know what is best for them. Why not let people decide by themselves?

– Why not, indeed. How?

– The best answer I know is the market.

Will education, health care, culture become the privileges of the rich?

– The the the… *market*? (gasping) Is it the market you have in mind when you talk of 'direct democracy'? Excuse me but…are you in your right mind? Will it be more democratic if people have to pay for the services they have access to freely now, such as education, health care, etc? What if they cannot afford them? Will education, health care, culture become the privileges of the rich?

– Not at all. You misunderstood me. My proposal does not entail that people's total consumption should be diminished. Let's take the case of education. Instead of paying taxes and sending their children to the local public school assigned to them by the authorities, parents would have vouchers that they would use to select the school they prefer for their children.

– But if all well-educated parents send their children to the same school, what will happen? Will not this lead to the creation of ghettos?

– Quite the contrary. In effect, as you know, ghettos already exist now, precisely because schools do not have any incentive to increase their quality. With families deprived of the right to choose which school to send their children to, public schools have what we economists refer to as 'captive consumers'. If there were a market for schools, each school would have to do its best in order to attract parents. In this way the quality of each school would improve – just as the quality of consumer goods has improved over the years in response to consumers' demand. Just compare the quality of your car to the one your parents had when you were a child.

– Do you mean that the school for my children is the same as my car?

– More so than you think. And the same goes for many goods that are or were publicly provided before. Look at the tremendous progresses competition has introduced in areas such as the Internet, phone services and air flights. Why would this logic not apply in areas like education, energy or postal services? For each of these goods, competition would provide society with a better use of its resources, which are always scarce.

– This is hard to believe. Would you also say that
this logic applies for hospitals or the police?

– No. In these cases, a public system may be more efficient.
But the number of exceptions is limited, as you can see.

– You talk a lot about efficiency. But what about fairness?
What if people cannot pay for the newly privatised services?

– Well, first of all, you already have to pay for many current
public services. In fact, you pay twice for them: first through
your taxes and second when you want to send a letter or take
the train. With privatised services, competition will drive
the price down: far from being hurt by privatisation, modest
households are the ones who will benefit most from it.

– So if privatisation diminishes the cost for everybody and does
not make anyone worse off, why do so many people resist it?

– For many reasons. First, many of the critics are not
trained to think as economists. They do not realise
the true cost to them of the services they have access
to for 'free'. Also, people fear change because they do
not like the unknown. Last, some groups of interest are
against privatisation because they would lose from it.

– Who? I thought you said privatisation
would benefit everybody?

– Privatisation would definitely benefit consumers. And
we are all consumers, aren't we? But by introducing
competition, privatisation will by definition remove
public monopolies. This will force these enterprises to
be more efficient, in order to remain competitive. So
their workers will have to work harder, they may get less
advantageous benefits, and some of them will even lose
their jobs. This is why these persons oppose privatisation.

– So there are losers. You did not
mention that at the beginning.

– There are losers, but this is the inevitable effect of
economic change, of progress. Would you like competition
to disappear? Why do you think your standard of living

is so much higher than the one your grandparents had? How do you think millions of people are getting out of poverty all around the world today? Because of the virtue of competition. You may well prefer to protect the advantaged workers of the protected public monopolies. But by so doing, you go against the historical trend which has proven so beneficial to humanity. And let me ask you: why should these workers benefit from a protection that you, who are working in the private sector, are not entitled to?

– I could put it the other way round: why don't we all benefit from the same protection that they do?

– Hmm…do you miss the USSR that much?

Here, Miss Oïpola blushes, and does not reply. She looks at the same time shocked and puzzled. The programme runs a commercial.

Real economies against the market ideal

So here is present-day mainstream economists' fairy tale. What arguments could we draw on to challenge such a beautiful story? The case in favour of markets seems overwhelming: markets are efficient, markets allow each individual to make their choices, markets promote a decentralised and fair society, and markets will even help protect the environment.

In fact, once one leaves the quiet realm of the academy, the picture changes dramatically. It is observable everywhere that markets induce waste, are unfair and displace more efficient ways of organising life.

The typical example is health systems. Careful studies by the World Health Organization (WHO) have compared existing health systems in different countries. Among industrialised countries, the results are striking: the public health systems are more *efficient* than the private ones. The inefficiency of private provision of health is demonstrated by the case of the United States. In terms of absolute *results*, measured by an index taking into account a number of issues (what WHO calls 'overall health attainment'), the United States ranks OK – as the 15th-best country in the world (the top five countries being Japan, Switzerland, Norway, Sweden and Luxemburg). But when it comes to the 'performance' of health systems – that is, how efficiently health systems translate money into health, measured by disability-adjusted life expectancy – the United States instead ranks 72nd. In contrast,

Among industrialised countries, the results are striking: the public health systems are more efficient than the private ones

countries not as rich as the United States but where health is mostly publicly provided, like Italy (ranked third), France (fourth), or Japan (ninth), obtain much better results.[26]

How come? According to WHO, part of the result can be explained by the *fairness* of public health systems. When health is provided to all, people do not wait to see a practitioner: they are cured earlier, which is both better for their health and less costly for the system as a whole. Hence, for some economic activities, refusing to exclude people as the market does may be not only fair, but also more efficient.

The health care example also reminds us of the costs of competition. According to mainstream economics, competition has only advantages when compared to a monopoly, because the monopoly has no incentive to innovate, to better the quality of its products or to lower its price. In contrast, competition is praised for the permanent downward pressure it imposes on prices, and for being a source of new and better products.

There is more than a grain of truth in this argument in favour of competition. But one should not forget that competition also comes at a cost. First, competition takes place between private companies which are motivated by profits and the perspective of shareholder dividends. These profits and dividends are, at the end of the day, paid for by the consumers. Second, competition induces an important amount of costs in marketing, publicity and the like – which are non-existent when there is a public monopoly. Third, competition may lead to redundant positions among the competing firms. Fourth, top wages are higher in private companies than in public institutions, and this also raises costs for the consumer.

In total, the case for competition against monopoly is not straightforward. True, it is probably better to have competition than monopoly for most consumer goods. But in many other cases the advantages of competition may be slim, if any. Even in the realm of mainstream economics, there is recognition that some goods and services can be better provided by a monopoly than through competition. These goods are called 'public goods': they are goods which cost the same to provide to one or 1000 consumers, and to which all consumers can have access simultaneously without impairing one another's con-

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26 See WHO, *The World Health Report 2000 – Health Systems: Improving Performance*, Geneva, 2000, statistical annex, tables 9 and 10. Available at: http://www.who.int/whr/2000/en/index.html.

sumption. Examples of such goods are national defence, education or TV signals.

There is yet another kind of goods which imposes limitations on the market. These are the goods which have an effect beyond the consumer who buys them. In such cases – called 'externalities' – the market price underestimates the real value of the good. For instance, for education or health care, the price that consumers are willing to pay is 'too low', because consumers do not include the positive effect of their good education and health on others. In the same way, when the production of a good induces pollution, the price charged by the producer is too low, because he does not take into account the negative effect of his production on the collective wellbeing of the members of society.

Public goods and externalities have been the classic cases in favour of public intervention in the economy. It was on the basis of such arguments that many economists favoured a wide public intervention after World War II. Nowadays, the trend is being reversed: nearly every good is understood as being the subject of potential privatisation. Let's suppose we would like to stop this. Can we?

The state versus the market: science, or ideology?

The conclusion of the previous discussion is that, *even while restricting ourselves to the way most economists think*, there is no economic law which can decide what the 'optimal' size of the state – or the market – should be. Answering this question is a matter of judgment, which varies with time and place. In most contemporary economics classes, the bias is in favour of the market, because most goods are thought of as being standard private goods. Thus the market naturally follows as the general mode of organisation, every other possibility being treated as an exception. Does this make sense?

A queue at the supermarket is a negative externality imposed on me by other consumers as they make me lose time

Again, it is a matter of judgment. Let's take the case of externalities. In a sense, externalities are simply everywhere: a queue at the supermarket is a negative externality imposed on me by other consumers as they make me lose time; the fact that I live in a safe society increases my wellbeing and is thus a positive externality; the high consumption of my neighbours is a negative externality affecting my consumption, as I want to copy them – or to distinguish myself from them; the existence of high inequalities can be a negative externality to me as I would prefer to live in a more equal society.

The same can be said about public goods. Today, the encompassing economic policy of the European Union, the 'Lisbon strategy', aims to make the EU 'the most competitive knowledge-based economy in the world'. This is excellent, especially if one remembers that knowledge is a public good: the cost of producing knowledge does not depend on the number of 'consumers', as you knowing more than me does not mean that I know less…quite the contrary! So taking the 'knowledge-based economy' seriously would definitely require bringing the state back in, as the success of Scandinavian countries, where massive spending in public education goes hand in hand with a very innovative private sector, illustrates.

Similarly, not so long ago, in many industrialised countries, basic industries and, in some countries like France, banks, belonged to the state. This was so because these organisations affect society as a whole and so should be made responsible for their choices. One could say that their activities are 'core activities', in the sense that they are at the heart of how the economy functions. In fact, the reactions of politicians when a large plant in a poor region is closed show that these core activities have not disappeared. So why let the 'market' decide their fate?

All in all, what this shows is that economic reasoning can be used in a variety of ways. Even within economics, there is no theorem demonstrating that there should always be more and better markets in order to increase the wellbeing of individuals. These questions are precisely the ones that make the study of economics fascinating. But in order to address them, one has to start from the recognition of the existence of pluralism.

Teaching economics through controversies

As already stated, pluralism is a basic requirement of a scientific attitude. In fact, the importance of pluralism should be obvious to economics teaching. Ever since economics was 'invented' by Adam Smith at the end of the 18th century, it has been a field of permanent debates and controversies. These debates were highly influenced by the political debates of the time. Thus, while the respective merits of capitalism and socialism were a central issue during most of the 20th century, that issue has largely disappeared since the collapse of the USSR.

Within the economics profession, the pro-market stance has become increasingly influential since the late 1970s. Thus, most economists
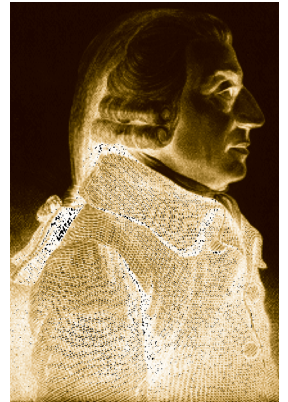
Adam Smith (1723-1790)

are in favour of the free market in, for example, trade (free trade), housing (suppression of rent control) and currencies (a flexible exchange rate mechanism).[27] But this growing consensus does not imply that debates have completely disappeared. On the contrary, questions which seemed settled keep on coming back, such as the effects of the minimum wage on employment.[28] Also, some debates which have been downplayed by economics departments continue in other academic departments, such as sociology, history, or political science, or even business schools. Even among economists, hot debates take place when policy issues are discussed. Indeed, there is still a significant diversity in the Econ world, with species like feminist, realist, Marxist, post-Keynesian, institutionalist, and so on, still surviving.

This is why I propose to put controversies in the centre stage.[29] A controversy is a situation when economist *A* formulates a theory, which economist *B* criticises, *A* replies, and so on. A famous example of a controversy is the debate between neo-classical economists and Keynesians about the source of unemployment. According to neo-classical economists, the main source of unemployment is the lack of flexibility of the labour market. What Keynes demonstrated is that this reasoning overlooks the fact that the wage is also a revenue for the workers. For him, increasing the flexibility of the labour market does not solve the problem: it makes it worse. He thought that a better way to tackle unemployment was through public investment.

Keynes' analyses guided post-World War II economic policies around the world. But from the early 1950s on, neo-classical economists criticised expansionary fiscal policies for artificially stimulating the economy. According to the leader of what was later to become the mainstream counter-revolution, Milton Friedman, these policies would result in higher inflation in the end, without any benefits in terms of new jobs. When inflation soared in the 1970s and governments were stuck with high levels of unemployment, the economic profession took off its Keynesian clothes and put on the neo-classical suit.

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27 Alston, R. M., J. Kearl and M. B. Vaughn, 'Is There Consensus Among Economists in the 1990s', *American Economic Review*, 1992. Dan Fuller, Doris Geide-Stevenson, 'Consensus Among Economists: Revisited', *Journal of Economic Education,* 2003.

28 Following the works of Krueger, Alan and Card, David, *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton, Princeton University Press, 1997. For a short presentation, read André Orléan, 'Humility in economics', *Libération*, 5 February 2001 (mouv.eco.free.fr/english/textsautors.htm).

29 Raveaud, Gilles, 'Teaching Economics through Controversies', in Fullbrook, Edward (ed.), 2003, *op. cit.*, pp.62-69.

But the persistence of unemployment in today's Europe is somehow bringing back Keynesian ideas to the forefront…

This is one example of a controversy. But others abound on virtually every topic. Sometimes, some of these controversies are presented in courses. But when they are, they are presented as an exception. What I propose is to give these controversies a central role, to introduce students to them at the earliest stage in the curriculum. But doing so raises a number of issues.

Teaching economics through controversies: what it is, what it is not, and why it matters

Among the many benefits of 'teaching through controversies' is the perspective of interesting students. Teaching economics can be really boring – for teachers too! – when it boils down to the instruction of the 'tools' of mainstream economics. On the other hand, students are eager to discuss real world issues and controversies when given the chance.

Teaching economics can be really boring – for teachers too!

Does this mean that the teacher has to choose between the technique and 'real' problems? In an absolute sense, no: he/she has to do both. But in practice, as choices are to be made, yes. The teacher has to decide what his or her priority is: technique and mainstream economics, or pluralism and debates? Unfortunately, teachers choose the first option in the vast majority of cases, an option which is both more valued by academia and more comfortable to teach.

In most economics departments, the theoretical tools are taught primarily for their own sake. Our plea, among the group of critical students, was to change this radically. In our scenario, teaching would be centred on the various analyses offered by different economists. This orientation would likely benefit students in terms of intellectual and professional training. Today, in order to succeed in their exams, students of economics around the world must either do calculus or repeat what they heard during the lectures. They are not asked to engage with concrete problems and to analyse them from different standpoints. Doing so would train them to think by themselves, to weigh the merits of various proposals, and to make a final decision – all competencies which are likely to be useful to them whatever their future career is.

I would like to underscore that our commitment to pluralism does not lead to a downplay of statistics and econometrics. It is quite the

opposite: as economic phenomena are measured, to understand them requires figures, statistics and econometrics. To our mind, whatever the subject discussed, students would have to be faced with real data, both during classes and for exams. In fact, judgments on competing approaches can hardly dispense with analysis of their quantitative impact. Take the case of an anti-pollution policy. By how much is this policy going to reduce pollution? At what cost? How do we know? What assumptions are we making in order to obtain this result? And so on. Again, these questions should be at the core of an engaged practice of economics.

Moreover, in the curriculum devised by our student group in France we proposed to tackle head on the normative aspects of economics. In our proposal, political philosophy would occupy a central role in the curriculum. But this was generally unnoticed by our critics. Here, hypocrisy is at its maximum, as economists pretend to be able to separate neatly 'positive' from 'normative' economics. In fact, these two dimensions are intertwined and inherent in *every* economic issue. So the 'welfare effects' of a given policy proposal cannot be left to passing remarks, or to advanced courses as they are now. Putting these dimensions in the core of the curriculum, and, again, grading students on their ability to assess them, should be a major requirement.

Thus, to sum up, the pluralist approach advocated here combines data, economic reasoning and political philosophy to address current issues. Isn't this what economics was for the great minds of Smith, Ricardo, Marx, Keynes, Schumpeter and the like? Now, is this merely a dream, something that sounds nice but, as is too often the case with economists, cannot take place in the real world? I do hope not. But it is also true that a pluralist curriculum raises some difficulties.

Pluralist teaching: from theory to practice

In 2000 and 2001, during our heated discussions about the 'ideal' curriculum, we encountered three main difficulties: what space should be allotted to disciplines other than economics in the curriculum? What sources should be used for lectures? What balance should be struck between theoretical tools and real world issues?

Regarding the question of multidisciplinarity, I would propose the following. In their first year, students should be introduced to the main thinkers and principles of at least two other subjects among, say, philosophy, sociology, law, history, political science or psychology. Second, the historical, sociological and political aspects of economic

theories should be brought back in: to take contemporary US examples, it simply does not make sense to present the theoretical models of Arrow, Friedman, Lucas, Samuelson, Solow or Stiglitz without presenting the empirical problems they had in mind when devising their theories. Last, later on in the curriculum (for instance, in the third year), economics students should do an assignment together with a student majoring in another discipline on a subject of their choice.

The second problem concerns the kind of sources to be used. Ideally, I would like not to use a textbook at all. Why? Because it would be much better to give students first-hand access to economic thought and issues. In fact, when I was a student the textbook used did not have the prominent place it has now. During our *first-year* module on 'political economy' we studied original texts from thinkers like Adam Smith, Karl Marx, Alfred Marshall, Lionel Robbins and Joan Robinson. We propose to return to these good old days! Plus, these readings would be accompanied by articles from newspapers and reports by national and international institutions (the OECD, the World Bank, the United Nations Development Program, etc.). Indeed, a major hole in current economics curricula is the absence of a core course on economic institutions such as, for example, central banks, the WTO (World Trade Organization) and global companies.

Ideally, I would like not to use a textbook at all. Why? Because it would be much better to give students first-hand access to economic thought and issues

This leads on to our third point of discussion: how to engage students with real–world problems which require the use of theoretical tools. The current position among economics departments is the following: let's teach them the tools first, and we will deal with the problems later. The fact is that the 'tools' presented are only the mainstream ones and that the study of current problems…never comes. To counter this, we had initially proposed to create thematic courses. The idea was to appeal to students by having courses with 'sexy' labels such as 'Do we have to choose between poverty or unemployment?', 'For or against the WTO?' or 'Pollution or growth?'.

With thematic courses, debates and controversies would be virtually everywhere, both in the main courses (labelled for instance 'political economy' and 'history of economic thought') and in the thematic courses. But as critiques made us realise later on, there is a difficulty here: dealing with real–world issues would lead teachers to refer implicitly to various theories, to which students would not yet have not been introduced. So, in the thematic courses, one would have to introduce students at the same time to the problem *and* the theories. I do not think that this cannot be done, but it certainly needs to be considerably thought through. In particular, the thematic courses

would have to be closely articulated to the courses on 'political economy' and 'the history of economic thought'. Again, this is far from impossible to achieve, and the expected gain may well be worth the challenge. So, all in all, I think that placing controversies at the centre has two merits: (i) it corresponds to an idea of science we want to defend; (ii) it is pedagogically feasible. Now, going into further detail, how should these controversies be presented? Here, unfortunately, it seems that there is no choice but to organise them around…mainstream economics.

Pluralism as a series of critiques of neo-classical economics

In the vast majority of economics departments, when it is not the only one taught, neo-classical economics is the *dominant* theory in the sense that it absorbs the most of teaching time. This is unfortunate, given all the shortcomings of mainstream economics. But we have to be realistic: mainstream economics is the current language of mainstream economists, journalists, politicians. In short, mainstream economics is the language of power. Therefore, students (and citizens) have to know it – and to know it well. Also, it is true that, historically, alternative economic theories have themselves developed as a critique of mainstream economics, the obvious cases here being the theories of Marx and Keynes. Thus, for all these reasons, it makes sense, in an alternative economics course, to introduce students to mainstream economics first.

In this approach, the course starts with the mainstream view of the world and its basic tools: specialisation and the gains from trade, supply and demand, producer and consumer choice, 'market failures' (public goods and externalities) and the labour market. After that, students are introduced to various alternatives that have been proposed to mainstream analysis. After this, empirical problems are introduced. This approach is the one devised by Professor Steve Marglin in his Harvard introductory course, to which I contributed in the first semester of 2005-2006. It has many merits, and it may be the case that it is hard to do better.

Still, one must be aware of the limits of this choice. First, this way of proceeding presents the mainstream view as 'the way economists think'. Again, this is perfectly legitimate given the orientation of most economists today around the world. But it makes the presentation of alternative theories difficult: once one has started with mainstream economics, it is more difficult to convince students of the validity of other approaches. For instance, when students – after having

initially resisted it – have assimilated the reasoning on 'equilibrium', they are more likely to find Keynes' focus on disequilibrium arbitrary. Similarly, introducing the students to the conflict-laden worlds of the Marxists, to the inequitable and patriarchal world of the feminists or to the world of limited resources of ecological economists proves difficult.

Why? Because after having been exposed to mainstream economics, students have in mind a world of rational individuals with infinite agency operating in a limitless world. With such a picture in mind, facts such as, for instance, conflicts on the distribution of wealth, the stratification of society in social classes, the importance of gender roles, or the limits imposed on us by nature appear as *ad hoc* superimpositions on the otherwise pure model of mainstream economics. That is, one of the strengths of the simplistic model of mainstream economics is that it makes reality look strange. Indeed, none of the elements discussed here (power, gender, nature) fit into the nice supply and demand diagram presented above. There is therefore a danger that they appear to students as (unnecessary) complications. It thus requires an effort on the part of the teacher to remind the students of the even greater arbitrariness and narrowness of mainstream economics. Were theories presented the other way round – that is, for instance, starting with Marx and Keynes and presenting mainstream economics only afterwards – it is quite possible that the students' judgment on the relevance of each approach might be different.

Also, as already stated, putting mainstream economics at the centre of the stage has the effect of presenting alternative views as 'critiques' of the mainstream, and not as theories standing on their own. I find this frustrating because I take Keynes' analysis to be, indeed, a 'general theory' which encompasses neo-classical analysis as a 'special case'. So, in presenting both, I would rather start with Keynes and his macro point of view of the economy, and present mainstream economics as a 'critique' of Keynesian analysis (as developed by Milton Friedman from the 1950s onwards).

This approach is possible, but it misses the important point that Keynes himself presents his work as a critique of mainstream economics. And Marx's *Kapital* has as a subtitle: 'A Critique of Political Economy'. Similarly, each heterodox economic school presents itself as an 'alternative' to or a critique of mainstream economics. Plus, as Steve Marglin points out, starting with mainstream economics may, contrary to what I have argued here, make students more ready for other theories, as they are faced early on with the limits of main-

stream economics. Therefore, although I still find it somewhat unjust to give such prominence to mainstream economics, I am afraid that there are just too many reasons to put it centre stage from the very beginning, and to present other views as 'critiques'.

Teaching pluralism at Harvard – the 'Social Analysis 72' course

In Steve Marglin's course at Harvard, five critiques are studied. The first is what Marglin has labelled the 'structural critique', which deals primarily with the internal limits of mainstream economics. This critique stresses the fact that what are regarded as 'exceptions' by mainstream economists – such as externalities, market power, increasing returns in production,[30] or the fact that some exchangers have more information than others – are not exceptions but central features of real markets. In effect, extra profits always derive from some kind of market imperfection which could be either innovation, or the capacity to exclude competitors, or the creation of a brand. If markets were what mainstream economics says they are, there would be no stimulus for extra profit, and hence no investment, that is no capital, and in the end…no capitalism.[31]

Extra profits always derive from some kind of market imperfection which could be either innovation, or the capacity to exclude competitors, or the creation of a brand

The second is the Keynesian critique. In the course, Keynes' analysis is presented as a critique of neo-classical economics. This diverges from conventional curricula, which present 'macro' and 'micro' courses as complementary, the macro course following the micro class. I think it makes much more sense to present Keynes as a critique, for the reasons explained above. In fact, one of Keynes' crucial points was that the general state of the economy ('macro results') does not follow from individual decisions ('micro actions'). On the contrary, what is rational for the individual firm – reducing its wage expenditures – may end as a catastrophic result – depression – for the economy as a whole.

The irony is that while the academy persists in presenting Keynes' ideas as being no longer held in great esteem by the profession, these

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30 Increasing returns means that the cost of production per unit produced goes down as the quantities produced increase. In the presence of increasing returns, the mainstream fiction of the 'small' firm cannot hold, as bigger units drive smaller ones out of business (the typical example here being factories versus craftsmen).

31 In fact, neo-classical economics is not a theory of capitalism, but a story which corresponds to small markets for fresh products from local small producers. In effect, a large number of the examples used by the most popular textbooks come from…agriculture.

ideas are at the core of the economic policies of all governments around the world, starting with the US. The economies we live in are not 'free market' economies in this important sense: everywhere central bankers manipulate interest and exchange rates in order to achieve certain goals, and states use their budget to move the economy in one direction or another. Arguing that these features matter only in 'the short run', as mainstream economists do, means omitting a central part of really existing economies.

The third critique is the distributional critique. A major flaw of mainstream economics is its complete disregard for poverty and inequality – even when they are so widespread that they threaten the very existence of society, as during the Great Depression or more recently in Russia or Argentina. To address the relation between efficiency and equity is, in economists' terms, to discuss the 'trade-off' between these two goals. That is, for most economists, one has to choose between more efficiency and more equity. This is because, according to the mainstream view, inequalities are an incentive for people to work harder, invest more, and so on, which will lead to a larger pie. This is a strong argument. In fact, all industrialised economies are associated with a certain level of inequality, and none has achieved perfect equality. And it is not clear if a majority of the people would prefer equality to the current situation.

But, on the other hand, it has to be stressed that industrialised countries are at the same time richer and much more equal than poor countries. Plus, Scandinavian countries demonstrate that it is possible to reach high levels of income per inhabitant while ensuring a minimum level of inequality.[32] There is no evidence that the rise of inequalities which took place in the US during the 1990s and, to a lesser degree, in Europe, was either justified by efficiency, or had a positive impact on it.[33] Also, some state interventions, such as public education and health, promote efficiency as well as equality, because they raise the quality of the workforce. Last, positive dynamics between equity and efficiency may emerge in production, when trust between workers and management favours productivity. So, all in all, there are a

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32 See Jackson, Andrew, 'Why We Don't Have to Choose between Social Justice and Economic Growth: The myth of the equity/efficiency trade-off', Canadian Council on Social Development Report, 2000. Access: http://www.ccsd.ca/pubs/2000/equity/.

33 For the US, see Galbraith, James K., *Created Unequal*, Chicago, University of Chicago Press, 1998, and Krugman, Paul, 'For richer', *New York Times*, October 2002. For Europe, read Huffschmid, Jörg (ed.), *Economic Policy for a Social Europe: A critique of Neo-liberalism and Proposals for Alternatives*, Palgrave Macmillan, 2005.

number of empirical and theoretical arguments against the idea of an inescapable trade-off between equity and efficiency.
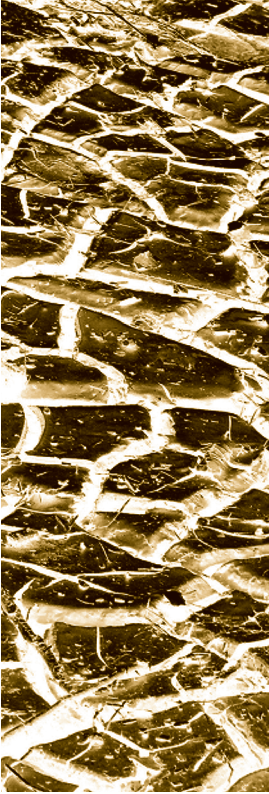
The last two critiques addressed in Marglin's course are the ecological and the 'foundational' critique. The ecological critique deals with the irreversible effects of human economic activity on the environment. Mainstream economics is unable to address the issues of resources depletion, because it postulates a world of unlimited resources. In fact, as Cambridge (UK) professor Tony Lawson has put it, mainstream economics is a 'closed system'.[34] That is, mainstream economics is a purely logical world, a world which cannot be disrupted from the outside – including by the disappearing of the natural environment. For mainstream economics, nature is reduced to a good which can be traded like any other. On the contrary, ecological economists remind us that the economy is inescapably embedded in nature, that the economy is a subset of nature – not the other way round.

What Marglin has labelled the 'foundational' critique tackles the anthropological dimension of the markets. Here, the stress is on the fact that markets may have a negative impact on communities, local cultures and, more generally, social ties. A case in point here are Indian workers who work in outsourced call centres in India for US companies and who change their name, their accent, and, progressively, their entire behaviour, because of their interaction with US customers. While the evaluation of these changes inevitably depends on the observers' point of view, this example shows that one cannot discuss the merits of free trade without questioning its effect on habits, customs and ways of living.

In a sense, these two last critiques deal with the impact of the market on our 'environment' – both natural and human. Mainstream economics is blind when it comes to the effects of the market on this environment simply because it takes the environment to be a given, unchanged by economic activities. So it cannot address the current depletion of resources, destruction of communities, the desperate quest for material goods and the expansion of greed. This is problematic as the development of mainstream economics and markets are linked. Sure, one did not have to wait for mainstream economists to invent markets. But, today, many mainstream economists play an active role in promoting market-based solutions to the world's most pressing problems. And their opinions and proposals are ascribed great importance by decision-makers.

Mainstream economics is unable to address the issues of resources depletion, because it postulates a world of unlimited resources

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34 In *Economics and Reality,* Routledge, 1997.

All in all, Marglin's course includes a variety of views that allow the students to have a broader analysis of the issues at stake. The next step would be to apply these different views (and others, such as the feminist critique) on current issues. Indeed, this is where the thematic courses presented above would come in. But this would require an orientation of the entire Harvard economics department in that direction. Even if forecasts are always difficult to make, I take the chance to say that I might not live long enough to see this happen – but who knows?

Conclusion: let's lead our kids away from market ideology!

One of the reasons the textbooks are a scandal is that they omit basic aspects of the world, such as the environment, power relationships, the role of organisations and institutions, or the existence of inequalities. This may sound hard to believe – and it is. But what is worse is that, as a student, you get used to it. At the beginning, you ask questions, but after having heard dozens of times that 'this is an interesting question, but we will deal with it later on', and that 'later on' never comes, you give up. You learn some fancy models, you run a few econometric exercises, you grasp a few facts in passing – but you are still unable to reply to your friends' questions about current economic issues.

That is, it can be argued that many economics departments have managed to discourage enquiry, to downplay knowledge. They have become agencies of ignorance and/or diffusion of a biased vision of the world. A crucial agent in this process are the introductory textbooks. These textbooks can be criticised in two major respects. First, they limit themselves to mainstream theory, with no mention of other theories. Second, they frequently omit many of the internal problems and inconsistencies of mainstream economics, under the guise of 'simplifying'.[35] In short, to quote Herbert Simon again, these textbooks are 'a scandal'.

Happily, a number of alternative textbooks have been published in the last few years.[36] They are the resource for a pluralistic teaching of

Sticker for textbooks from *Adbusters Magazine*. See issue 85, Sep/Oct 2009 on 'Thought Control in Economics' www.adbusters.org

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35 See our collective text, 'These Wonderful US textbooks', mouv.eco.free.fr/english/ twonderfull.htm.

36 Notably: Colander, David, *Economics*, McGraw-Hill, 2004; Goodwin, Neva *et al.*, *Microeconomics in context*, Houghton Mifflin, 2005 and *Macroeconomics in context*, forthcoming; Samuel Bowles *et al.*, *Understanding Capitalism*, Oxford University Press, 2005; Klamer, Arjo, Deirdre McCloskey and Stephen Ziliak, *The Economic Conversation*, Palgrave Macmillan, forthcoming.

economics. True, these textbooks may seem a very modest solution to the problems pointed out in this article. By themselves, they will certainly not overthrow mainstream economics from its currently dominant position. But I hope, and think, that they will help undermine it, as more and more teachers use them.

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The practice of earth democracy
Looking ahead – Experiences from 30 years of participatory research and community action

Vandana Shiva

Over the past three decades, I have tried to live by transcending polarities – between people and planet, between modern science and indigenous knowledge, between environment and 'development', between North and South, between local and global.

The institutions and movements I have helped to build over the past decades have been inspired by the urge to seed new imagination and possibilities, open up new spaces and new synergies for planetary citizenship based on our duty to care for the earth, her ecosystems and her diverse species, including our own.

In this article I would like to reflect on the future direction we need to take, based on my own very personal trajectory. At a time of multiple, severe crises I see at the core a struggle between a dominant, universalising system of knowledge on the one hand, and, on the other hand, plural, resilient and local systems of knowledge that are, and have always been, fundamentally important for living in a healthy and sustainable relationship with nature.

In 1982, when I left an academic career to found the Research Foundation for Science, Technology and Ecology, I was troubled by the Baconian mark of 'knowledge with power'. My involvement with the Chipko movement of women protecting their forests (which I have written about in my book *Staying Alive*), had taught us that the powerless are not powerless due to ignorance but due to the appropriation of their resources by the powerful.[1] I have often called Chipko my University of Ecology and the women of Chipko my professors, even though they had never been to school, while my academic doctorate is in Quantum Physics. I learnt in the 1970s that literacy is not a prerequisite for knowledge, and that ordinary tribals, peasants and women have tremendous ecological knowledge based on their experience. They are biodiversity experts, seed experts, soil experts, water

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1   Shiva, V., *Staying Alive: Women, Ecology and Development*, Zed, London, 1989.

experts. The blindness of dominant systems to their knowledge and expertise is not proof of the ignorance of the poor and powerless. It is in fact proof of the ignorance of the rich and powerful.

Not only do the marginalised have knowledge; but also they are the only ones who have knowledge about the roots and causes of their marginalisation and poverty. The women of Chipko know that their growing poverty, and scarcity of water, fuel and fodder, are linked directly to the profits of the logging industry. And that is why they hugged trees to stop the commercial logging. After a decade of resistance, the Government of India finally took action in 1981 and imposed a ban on logging above 1000 metres in the fragile central Himalayas, the source of the mighty rivers Ganga and Yamuna and their tributaries.

The women of Chipko know that their growing poverty is linked directly to the profits of the logging industry

The Research Foundation for Science, Technology and Ecology grew out of the confidence and trust that all people have expertise and knowledge. The participatory research it carries out deals with authentic problems and issues as opposed to conventional research, which is usually carried out in the ivory tower of privileged academic institutions. The Foundation was started in my mother's cowshed in my birthplace and hometown, Dehradun. I left Bangalore, the 'Silicon Valley' of India, returned home to the Himalayas, and started the experiment to connect research-based knowledge and the powerless. Instead of deriving support and strength from big money, the Foundation drew its strength and support from local communities. In turn it gave them and their struggles strength and support through research. This mutualism, this connection of research and action, has sustained our work over more than two decades. And it has proved to be effective. The Doon Valley has been declared a Green Zone and limestone mining has been stopped. The established forestry, aquaculture and agriculture paradigms have begun to shift from monoculture to diversity and from commerce to sustenance. The dominant intellectual property rights paradigm has been challenged and cases won against neem and basmati biopiracy. And our only asset was my mother's cowshed and the partnership between researchers and people's movements.

The participatory research carried out through the Research Foundation did not just have an impact at the local and national level. It also had an impact at the global level. Our work in India on social forestry and eucalyptus monocultures played a significant role in shaping the World Rain Forest Movement, a global movement to protect the rainforests and resist the World Bank's Tropical Forest Action Plan.
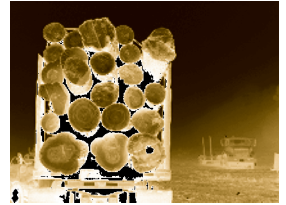
This USD 8 billion plan has been criticised by many for contributing to tropical deforestation. Similarly our work in India on the Green Revolution became a major input in building the global resistance to genetically engineered crops. As we championed the knowledge and perspectives of local communities it became increasingly clear that technological approaches that are not controlled by communities are not part of the solution to world hunger but part of the problem. Our way of working has not just sought to overcome the false divide between knowledge and action. It has also contributed to overcoming the North–South polarisation created by capital and colonialism. We are proud to be part of the emerging global movements that are connected through our common concerns and common humanity. Knowledge rooted in the earth and in the local has helped nourish a new global solidarity of earth citizenship, based on our care of the earth and compassion for each other.

The Green Revolution and its disastrous effects

The year 1984 was truly Orwellian. The Green Revolution, awarded a Nobel Prize for Peace in 1970, contributed in 1984 to two social and environmental disasters in India that in striking ways illustrate the violence inherent in this package of technology and new social organisation. One was the extremist movement and terrorism in Punjab that led to the military assault on the Golden Temple and finally the assassination of Indira Gandhi in 1984. The other was the gas leak from the Union Carbide pesticides plant in Bhopal, which killed 3,000 people on that tragic night of 3 December 1984. In the years that have passed since that tragedy, 30,000 people have died in Bhopal due to the leak of these toxic gases. The Punjab violence also took the lives of 30,000 people in the years following 1984.

How and why did a 'Revolution' awarded a Nobel Peace Prize lead to so much violence? The Green Revolution came with a promise of peace. But its crude linearity – Technology $\Rightarrow$ Prosperity $\Rightarrow$ Peace – failed. The reason for this failure was that the technologies of the Green Revolution, just like technologies of war, leave nature and society impoverished. To expect prosperity to grow out of violent technologies that destroy the earth, erode biodiversity, deplete and pollute water, and leave peasants indebted and in ruins, was a false assumption made during the launch of the Green Revolution. This false assumption is today being repeated in the launch of the Second Green Revolution based on biotechnology and genetic engineering.

The 'terrorism' and 'extremism' in Punjab was born out of the experience of injustice of the Green Revolution as a development model, which centralised power and appropriated the people's resources and those of the earth. In the words of Gurmata from the All Sikh Convention on 13 April 1986:

> If the hard-earned income of the people or the natural resources of any nation or the region are forcibly plundered; if the goods produced by them are paid for at arbitrarily determined prices while the goods bought are sold at higher prices and if, in order to carry this process of economic exploitation to its logical conclusion, the human rights of a nation, region or people are lost then the people will be – like the Sikhs today – shackled by the chains of slavery.[2]

The peasants and people of Punjab were clearly not experiencing the Green Revolution as a source of prosperity and freedom. For them it was slavery. The Green Revolution, the social and ecological impacts it had, and the responses it created among an angry and disillusioned peasantry, have many lessons for our times, both for understanding the roots of terrorism and searching for solutions to violence.

The work on the Green Revolution that the Research Foundation did with the people's movements became a link to the debate and struggles related to the emerging biotechnologies. In 1987, the Dag Hammarskjöld Foundation, along with the Rural Advancement Foundation International (RAFI, now the ETC group – Action Group on Erosion, Technology and Concentration) organised a conference on Biotechnology called 'The Laws of Life'. Besides researchers/activists like myself, the participants included UN officials and representatives of the biotech industry. The presentations made by the industry's representatives made it clear to us that they were using genetic engineering as an instrument of control. This is why they were pushing for intellectual property rights to form part of the General Agreement on Trade and Tariffs (GATT), which later on became the Trade Related Intellectual Property Rights Agreement of the World Trade Organization (WTO).

Gandhi's legacy, humanity's hope

Gandhi's legacy, humanity's hope

Gandhi lives on – as a perennial source of inspiration and political innovation to defend our freedoms. Corporate globalisation as a project is set to extinguish all freedoms of people through the total control of

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2   Quoted in Shiva, V., *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics*, Penang, Third World Network, 1991.

trade, technology and property rights. It threatens the freedom of rivers to flow and organisms to evolve, of farmers to save seeds and grow crops, of consumers to be free to choose what they eat and know how their food is produced. These fundamental freedoms of all species and ordinary humans are being stolen in the name of 'free trade' and of globalisation.

This economic, corporate-driven globalisation is often presented as a process of new interconnections between societies. However, to the extent that it is geographical, it is actually about the global reach of giant corporations – not about a global joining of the hearts of people worldwide. The real project of this globalisation is colonisation and commodification of the very resources and processes that give us life – our biodiversity, our food, our water.

Over the past two decades, my ideas and actions to defend life's freedom and diversity have come from Gandhi. Without his legacy it would be impossible even to imagine a response to the totalitarianism built into the project of owning life, owning seeds, owning water. Patents on life and the new biotechnologies are today's tools of imperialism. They are a core part of the global 'constitution' called the WTO rules of free trade in the form of trade-related intellectual property rights (TRIPs). The term 'trade-related' had to be deliberately linked to intellectual property precisely because intellectual property has no place in a trade treaty. Nor should patents have been extended to cover life forms as they were under Article 27.3(b) of TRIPs. This act forces WTO member countries to patent life forms, in particular micro-organisms and genetically engineered plants and animals. These rules and laws were made by and for corporations. As a Monsanto spokesperson stated, concerning the drafting of TRIPs: 'We were the patient, the diagnostician, the physician.'

Patents of life are a total control system. They allow corporations to claim ownership over life forms – micro-organisms, plants and animals. They allow corporations to define the acts of saving and sharing seeds as 'intellectual property crimes'. And they allow the crime of biopiracy – the theft of traditional knowledge – to be treated as a right.

A patent confers the exclusive right to own, make, sell, produce and use a particular product. A patent on seed implies that a farmer saving seed is 'an intellectual property thief'. But it means more. A system in which seed has become a corporate monopoly, a system in which a few companies control the seed supply, is in effect a system of slav-

ery for farmers. Where the freedom of seed disappears, the freedom of farmers disappears.

This is why, after that seminar in 1987, when I first came to know about GATT and TRIPs and patents on life, I searched for ways to defend the freedom of biodiversity and the freedom of peasants. And it was Gandhi's spinning wheel that inspired me to dedicate my life to saving seeds – to save small farmers and protect life.
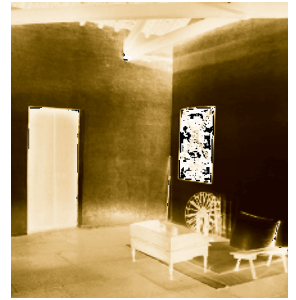
Spinning freedom

It was to regenerate livelihoods in India that Gandhi thought of the spinning wheel as a symbol of liberation and a means of generating self-reliant livelihoods. Power-driven mills were the symbol of development in that period of early industrialisation. However, the hunger of mills for raw material and markets destroyed livelihoods and caused a new poverty. This was done both by diverting land and biomass from local subsistence to the factory and by displacing local production through the market.

Gandhi had said, 'Anything that millions can do together, becomes charged with unique power'. The spinning wheel had become a symbol of such power. 'The wheel as such is lifeless, but when I invest it with symbolism, it becomes a living thing for me'.

Mahatma Gandhi's room at Sabarmati

In 1908, when Gandhi described the *charkha* (spinning wheel) and the *Hind Swaraj* (self-rule for India) as a panacea for the growing pauperism of India, he had never seen a spinning wheel. Even in 1915, when he returned to India from South Africa, he had not actually seen a spinning wheel. But he saw an essential element of freedom from colonialism in discarding the use of mill-woven cloth. He set up handlooms in the Satyagraha Ashram at Sabarmati, but could not find a spinning wheel or any spinners, who were normally women. In 1917, Gandhi's disciple Ganga Behn Majumdar started a search for the spinning wheel, and found one in Vijapur in Baroda State. Quite a few people there had spinning wheels in their homes, but had long since consigned them to the lofts as useless lumber. They now pulled them out, and soon Vijapur *khadi* (hand-spun, hand-woven cloth) gained a name for itself. And the *khadi* and the *charkha* rapidly became the symbol of India's independence movement.

The spinning wheel symbolised a technology that conserves resources, people's livelihoods and people's control over their livelihoods. In contrast to the imperialism of the British textile industry, the *charkha*

was decentred and labour-generating, not labour-displacing. It need-
ed people's hands and mind's, instead of treating them as surplus,
or as mere inputs into an industrial process. This critical mixture
of decentredness, livelihood generation, resource conservation and
strengthening of self-reliance was essential to undo the waste of cen-
tralisation, livelihood destruction, resource depletion and economic
and political dependence that had been engendered by the industri-
alisation associated with colonialism.

Gandhi's spinning wheel is a challenge to notions of progress and ob-
solescence that arise from absolutism and false universalism, concepts
on which the development of science and technology are based. Ob-
solescence and waste are social constructs that have both a political
and an ecological component. Politically, the notion of obsolescence
gets rid of people's control over their lives and livelihoods by defin-
ing productive work as unproductive and removing people's control
over production in the name of progress. It would rather waste hands
than waste time. Ecologically, obsolescence destroys the regenerative
capacity of nature by substituting her diversity with manufactured
uniformity. This induced dispensability of poorer people on the one
hand and diversity on the other constitute the political ecology of
technological development guided by narrow and reductionist no-
tions of productivity. Parochial notions of productivity, claimed to be
universal, rob people of their control over the means of reproducing
life and rob nature of her capacity to regenerate diversity.

Ecological erosion and destruction of livelihoods are linked to one an-
other. Displacement of diversity and displacement of people's sources
of sustenance both arise from a view of development and growth based
on uniformity created through centralised control. In this process of
control, reductionist science and technology act as handmaidens for
economically powerful interests. The struggle between the factory
and the spinning wheel continues as new technologies emerge.

As seeds are genetically engineered and patented, a crisis is being en-
gineered for farmers and farming. In response, the seed becomes the
charkha of today. For this reason Navdanya, a national movement to
save seed diversity in farmers' fields, was started in 1987.

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Some Gandhian terms and concepts	
Khadi	hand-spun, hand-woven cloth
Charkha	spinning wheel
Hind Swaraj	self-rule for India
Swadeshi	self-made, self-reliance. It included the drive to use only Indian products, nothing foreign-made.
Sarvodaya	a movement 'for the upliftment of all', especially active during the 1950s
Satyagraha	struggle for truth and against injustice, based on non-violent civil disobedience

Navdanya: Seeds of freedom, seeds of change

The Green Revolution was an example of the deliberate destruction of diversity. The new biotechnologies are repeating and deepening these tendencies rather than reversing them.

Further, the new technologies, in combination with patent monopolies being pushed through intellectual property rights regimes in the WTO, TRIPs and other trade platforms, as well as the Convention on Biological Diversity (CBD), are threatening to transform the diversity of life forms into mere raw material for industrial production, and limitless profits. They are simultaneously threatening the regenerative freedom of diverse species and the free and sustainable economy of small peasants and producers, which is based on nature's diversity and its utilisation.

Seed, for example, reproduces itself and multiplies. Farmers use seed as food grain as well as for the next year's crop. Seed is free, both in the ecological sense of reproducing itself, as well as in the economic sense of reproducing the farmer's livelihood.

This seed freedom is, however, a major obstacle for seed corporations. As these corporations want to create a commercial market, the seed has to be transformed artificially, so that reproducibility is blocked. Also, its status has to be changed legally from being the common property of farming communities to the patented private property of seed corporations.

As my involvement in these issues grew, the seed started to take shape as the site and symbol of freedom in the age of manipulation and monopoly of life in all its diversity. Ethically and ecologically, unrestrained biotechnology development gives new tools for manipulation; patents offer new tools for monopoly ownership of that which is by its very nature free. I thought of Gandhi's spinning wheel, which had become such an important symbol of freedom, not because it was big and powerful, but because it was small and could become alive as a sign of resistance and creativity in the smallest of huts and poorest of families. In smallness lay its power.
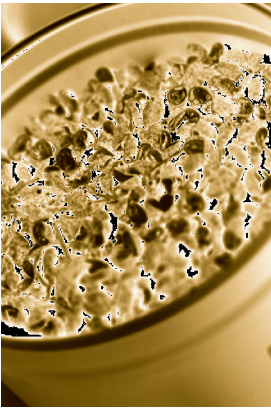
The seed too is small. It embodies diversity. It embodies the freedom to stay alive. And seed is still the common property of small farmers in India. Seed freedom goes far beyond freedom for the farmer from corporations. It also represents the freedom of diverse cultures from centralised control. In the seed, ecological issues can combine with social justice. I could see that it was the seed that could play the role of Gandhi's spinning wheel in this period of recolonisation through 'free trade'.

The seed too is small. It embodies diversity. It embodies the freedom to stay alive

In spite of many blocks and pressures, many movements joined together to launch a national programme to save seed diversity in farmers' fields. We call it Navdanya, which literally means 'nine seeds'. These represent India's collective source of food security, connoting a diverse ecological balance at every level – from the ecology of the earth to the ecology of our bodies.[3] It is a beautiful symbol of the richness of diversity.

Ours was not the first seed conservation programme. Farmers have always collected genetic resources for breeding. In the 1970s the risks of breeding towards uniformity led to the emergence of government gene banks. However, while gene banks collect biodiversity from farmers' fields, they do not conserve it through and with farmers. Instead, diversity flows from farmers' fields to gene banks and then on to corporate breeders. Biodiversity is systematically eroded at the

3   For more information visit www.navdanya.org

source, turning farmers into mere consumers of corporate seed. In the future this seed will also have intellectual property rights protection, forcing farmers to buy seed every year. This excludes the farmer from playing the critical role of conserver of genetic diversity and innovator in the utilisation and development of seed. It robs farmers of their rights to their biological and intellectual heritage. It also separates conservation from production, and scientists from farmers. Navdanya wanted to build a programme in which farmers and scientists relate horizontally rather than vertically, in which conservation of biodiversity and production of food go hand in hand, and in which farmers' knowledge is strengthened, not stolen.

While the fundamental changes we are working towards can only be achieved in the long term, at the small-scale level, Navdanya has already had a major impact in the villages where we work. Realising that our small efforts in the conservation of indigenous seed diversity are not enough, we have also joined hands with the farmers' movement to urgently mobilise public opinion against the emerging threat of multinational corporations gaining monopoly control on life through the new biotechnologies and intellectual property rights.

In 1991, Navdanya started to collaborate with farmers' organisations, to increase public awareness of the new trends and to work with them on protecting farmers' rights to freely conserve, use, exchange and modify seeds. In February 1992, we organised a national conference on GATT and agriculture with the Karnataka Rajya Ryota Sangha (KRRS), a farmers' organisation in Karnataka State. In October 1992, at a massive farmers' rally in Hospet organised by the KRRS, the seed *satyagraha* was launched, following Gandhi's politics of *Satyagraha* as a struggle for truth based on non-cooperation with unjust regimes. In March 1993, we helped organise a national rally in Delhi at the historic Red Fort under the leadership of the national farmers' organisation, the Bharatiya Kisan Union. Independence Day 15 August 1993 was celebrated with farmers asserting their 'Collective Intellectual Property Rights' (*Samuhik Gyan Sanad*). On 2 October 1993, the first year of the seed *satyagraha* was celebrated in Bangalore with a gathering of 500,000 farmers. This was also attended by farmers from other Third World countries as well as scientists who worked on the farmers' rights and sustainable agriculture in an expression of solidarity. The internationalisation of the seed *satyagraha* within one year had given the word 'globalisation' a new meaning. From representing global markets as in the parlance of free trade proponents, it has come to mean for us the globalisation of people's resistance to centralised control over all aspects of their lives.

The native seed has become a symbol of resistance against mono-cultures and monopoly rights. The shift from uniformity to diversity respects the rights of all species and is sustainable. Diversity is also a political imperative because uniformity goes hand in hand with cen-tralisation, while diversity demands decentred control. Diversity, in ways of thinking and in ways of living, is what is needed to go beyond the impoverished monocultures of the mind.

For us, protecting native seeds is more than conservation of raw ma-terial for the biotechnology industry. The diverse seeds now being pushed to extinction carry within them seeds of other ways of think-ing about nature and other ways of producing for our needs. Uni-formity and diversity are not just patterns of land use; they are ways of thinking and ways of living.

Conservation of diversity is, above all, the commitment to let alter-natives flourish in society and nature, in economic systems and in knowledge systems. Cultivating and conserving diversity is no luxury in our times. It is a survival imperative, and the precondition for the freedom of all, big and small. In diversity, the smallest has a place and is significant. Allowing the small to flourish is, I believe, the real test of freedom – in the life of an individual, the life of an organisation, the life of a society, and the life of this planet. It is this connection between diversity, decentredness and democracy that has guided our ideas and actions, at the local as well as the global level.

Seed-saving: our ethical duty, our human right

Seed is the first link in the food chain. In Sanskrit, *bija*, the seed, means the source of life. Saving seed is our duty; sharing seed is our culture.

In Sanskrit, *bija*, the seed, means the source of life

Patents on seeds and genetic resources rob us of our birthright to de-rive our livelihoods from the land because patents transform seed-saving and seed-sharing into 'intellectual property crimes'. This is an assault on our culture, our human rights, our very survival.

Seed patents and seed monopolies are also becoming a major source of seed and food insecurity. As seed is transformed from the common property of peasant communities into the private property of giant corporations such as Monsanto, a number of associated transforma-tions take place.

For example, the shift from farmer-saved seed to corporate monopolies of the seed supply is also a shift from biodiversity to monocultures in agriculture. The district of Warangal in Andhra Pradesh used to grow diverse legumes, millets and oilseeds. Seed monopolies created crop monocultures of cotton, leading to the disappearance of millions of nature's evolved and farmers' bred seeds.

Monocultures and uniformity increase the risks of crop failure. Diverse seeds adapted to diverse ecosystems are replaced by the rushed introduction of unadapted and often untested seeds into the market. When Monsanto first introduced the genetically modified variety Bt cotton in India in 2002, the farmers lost Rs. 1 billion due to crop failure. Instead of 1,500 kg per acre as promised by the company, the harvest was as low as 200 kg. Instead of increased incomes of Rs. 10,000 per acre, farmers ran into losses of Rs. 6,400 per acre.

In the state of Bihar, when farmer-saved corn seed was displaced by Monsanto's hybrid corn, the entire crop failed, resulting in a loss of Rs. 4 billion and increased poverty for already desperately poor farmers.

Poor peasants and farmers around the world cannot survive seed monopolies. That is why the case of Percy and Louise Schmeiser has been so important, not just to one Canadian farmer but to billions of peasants. The unjust and unethical case brought by Monsanto against the Schmeisers, whose fields were contaminated by Monsanto's genetically modified canola seed, was a double crime against farmers. Firstly by creating and enforcing illegitimate patent rights to seed, robbing farmers of their human right and human duty to be seed savers. Secondly, had Monsanto won, it would have meant that the polluter would have gained both enhanced property rights and profits. However, in an out-of-court settlement, finalised on 19 March 2008, the lawsuit was settled and Monsanto agreed to pay all the clean-up costs of the Roundup Ready canola that had contaminated the Schmeisers' fields. The agreement also stated that Monsanto can be sued again if further contamination occurs.

Poor peasants and farmers around the world cannot survive seed monopolies.

Farmers' freedoms must come before corporate monopoly. Farmers' survival must come before corporate greed. The Schmeisers' victory is our victory and their seed freedom is our freedom. The Schmeisers' rights as farmers are symbolic of the human rights of all farmers.

The suicide economy of corporate globalisation

While the government spends millions on advertisements claiming that 'India's shining', a large part of India is dying. The Indian peasantry, the largest body of surviving small farmers in the world, today faces an existential crisis.

Two thirds of India makes a living from the land that has been farmed for more than 5,000 years. The earth is the most generous employer in this country of a billion people.

However, as farming is delinked from the earth, the soil, the biodiversity and the climate, and linked to global corporations and global markets, and as the generosity of the earth is replaced by the greed of corporations, the viability of small farmers and small farms is destroyed. Farmers' suicides are the most tragic and dramatic symptom of the crisis of survival faced by Indian peasants.

1997 witnessed the first emergence of farm suicides in India. The rapid increase in indebtedness was at the root of farmers taking their lives. Debt is a reflection of a negative economy, a loosing economy. Two factors have transformed the positive economy of agriculture into a negative economy for peasants – the rising costs of production and the falling prices for farm commodities. Both these factors are rooted in the policies of trade liberalisation and corporate globalisation.

Eleven years ago, in 1998, the World Bank's structural adjustment policies forced India to open up its seed sector to global corporations like Cargill, Monsanto and Syngenta. The global corporations changed the input economy overnight. Their corporate seeds were marketed through government agencies, and indigenous religions, beliefs and myths were used to convince farmers. Farmers were seduced by advertisement and given false promises of becoming rich. In this way farmer-saved seeds were replaced by corporate seeds, which needed fertilisers and pesticides and could not be saved.

As saving of corporate seed is prevented by patents as well as by the engineering of seed with non-renewable traits, this seed has to be bought for every planting season by poor peasants. What had been a free resource available to poor peasants on their farms becomes a commodity which farmers are forced to buy every year. This has increased poverty and led to indebtedness. As debts increase and become unpayable, farmers become increasingly desperate. Many have felt compelled to sell a kidney or even to commit suicide. In the ten years after 1997 – when the practice of seed-saving was radi-

cally transformed under corporate globalisation pressures and multinational seed corporations took substantial control of the seed supply – 182,936 farmers commited suicide, according to the National Crime Records Bureau. And the number is growing.[4] Seed-saving gives farmers life. Seed monopolies rob farmers of life.

This crisis of suicides is a clear indication that the survival of small farmers is incompatible with the seed monopolies of global corporations.

Another pressure Indian farmers are facing is the dramatic fall in prices of farm produce as a result of the WTO's free trade policies. The WTO rules for trade in agriculture are in essence rules for dumping. They have allowed an increase in government subsidies to agribusiness and at the same time prevented countries from protecting their farmers from the dumping of artificially cheap produce. Farm subsidies of USD 400 billion given by OECD countries combined with the forced removal of import restrictions are a ready-made recipe for farmers' suicides. Between 1995 and 2001 global prices dropped from USD 216 per ton to USD 133 per ton for wheat, USD 98.2 per ton to USD 49.1 per ton for cotton and USD 273 per ton to USD 178 per ton for soya bean. This reduction to half the price was not due to a doubling in productivity but rather to an increase in subsidies and an increase in market monopolies controlled by a handful of agribusiness corporations.

Seed-saving gives farmers life. Seed monopolies rob farmers of life

Because the US government pays USD 193 per ton to US soya farmers, the price of soya is artificially lowered. The removal of quantitative restrictions and lowering of tariffs have led to increased imports of this subsidised soya, which has in turn destroyed the livelihoods of coconut growers, mustard farmers, as well as producers of sesame, groundnut and soya. Similarly, 25,000 cotton producers in the US receive a subsidy of USD 4 billion annually. This has brought the cotton prices down artificially, allowing the US to capture world markets that earlier were accessible to poor African countries such as Burkina Faso, Benin and Mali. The subsidy of USD 230 per acre in the US is genocidal for African farmers. African cotton farmers are losing USD 250 million every year. That is why small African coun-

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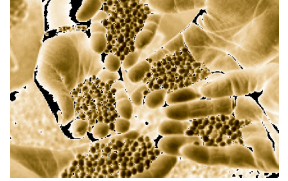
4   See, for example: *Accidental Deaths and Suicides in India 2007,* National Crime Records Bureau (http://ncrb.nic.in/ADSI2007/home.htm); '16,632 farmer suicides in 2007' *The Hindu,* 12 December 2008 (http://www.hinduonnet.com/thehindu/2008/12/12/stories/2008121257740100.htm; and www.indiaresource.org/news/2005/2017.html); *Punjab suicides cast shadow on polls,* BBC News, 12 April 2009 (http://news.bbc.co.uk/2/hi/south_asia/7992327.stm).

tries walked out of the Cancun negotiations in 2003, leading to the collapse of the WTO ministerial.

The rigged prices of globally traded agriculture commodities are stealing incomes from poor peasants of the South. Analysis carried out by the Research Foundation for Science, Technology and Ecology shows that due to falling farm prices, Indian peasants are losing USD 26 billion or Rs. 1.2 trillion annually. This is a burden their poverty does not allow them to bear: hence the epidemic of farmers' suicides.

India was among the countries that questioned the unfair rules of WTO in agriculture and led the G-22 alliance, along with Brazil and China. India with other Southern countries addressed the need to safeguard the livelihoods of small farmers everywhere in the world from the injustice of 'free' trade based on high subsidies to agribusiness and dumping. Yet at the domestic level, official agencies in India are in deep denial of any links between 'free' trade and farmers' survival.

An example of this denial is a report commissioned by the government of Karnataka: 'Farmers suicide in Karnataka – A scientific analysis'. Though claiming to be 'scientific', this expert report was full of inconsistencies – downplaying the number of farmers in debt and greatly exaggerating the number of 'alcoholic and illicit drinkers'. In this way it was able to conclude that the 3,500 suicides in the five districts during 2000/2001 were primarily a result of farmers' bad habits and did not have economic causes. Therefore, instead of proposing changes in agricultural policy, the report recommends that farmers be required to boost their self-respect (*swabhiman*) and self-reliance (*swavalambam*). Ironically, its recommendations for achieving this include changes in the Karnataka Land Reforms Act to allow larger land holdings and leasing. Such steps would further decimate the land worked by small farmers who have been protected by land 'ceilings' (an upper limit on land ownership) and policies that allow only peasants and agriculturalists to own agricultural land. (This is part of the 'land to the tiller' policies of the Devraj Urs government).

This report supported the government in its desperate attempt to de-link farm suicides from economic processes linked to corporate globalisation. These processes include the rise in indebtedness and increased frequency of crop failure, due to higher ecological vulnerability arising from climate change and drought, and higher economic

risks due to the introduction of untested, unadapted seeds grown as monocultures.

Farmers' suicides cannot be delinked from indebtedness and the economic distress small farmers are facing. Of course, indebtedness is not new and farmers have always organised for freedom from debt. In the 19th century the so-called Deccan Riots were farmers' protests against the debt trap into which they had been pushed, to supply cheap cotton to the textile mills in Britain. In the 1980s they formed peasant organisations to fight for relief from public debt linked to Green Revolution inputs. However, under globalisation, farmers are losing their social, cultural and economic identity as producers. Farmers are now 'consumers' of costly seeds and costly chemicals sold by powerful global corporations through powerful landlords and money lenders locally. This combination is leading to corporate feudalism, the most inhumane, brutal and exploitative convergence of global corporate capitalism and local feudalism, in the face of which farmers, as individual victims, feel helpless. The bureaucratic and technocratic systems of the state are coming to the rescue of the dominant economic interests by blaming the victim.

Farmers are now 'consumers' of costly seeds and costly chemicals sold by powerful global corporations

It is necessary to stop this war against small farmers. It is necessary to re-write the rules of trade in agriculture. It is necessary to change our paradigms of food production. Another kind of agriculture is possible and necessary – agriculture that protects farmers' livelihoods, the earth and its biodiversity, and public health.

From the suicide economy to living economies

Gandhi's creative vision of *swadeshi* (self-reliance), *swaraj* (self-rule), *satyagraha* (struggle for truth – the basis of civil disobedience) and *sarvodaya* (upliftment of all) inspires us to build living economies and living democracies. In his legacy we find hope, we find freedom, we find our own creativity. Gandhi's philosophy is a living philosophy because when it informs our actions, they become charged with life. Through Gandhi we can begin with constructive action and turn it into our best resistance. Our seed-saving is a resistance to seed monopolies and seed patents. And when our government begins to implement TRIPs, as it has done through three amendments of our Patent Act and the creation of new legislation on plant varieties, we remember Gandhi's words: 'As long as the superstition that people should obey unjust laws exists, so long will slavery exist'. And we renew our commitment to the *Bija Satyagraha* ('struggle for the seed'). Just as Mahatma Gandhi started the Salt *Satyagraha* to protest against

'the colonisation of salt' by the British Empire through the imposition of the Salt Laws, so are people's movements in India today committed to the *Bija Satyagraha* based on non-cooperation with unjust and immoral intellectual property rights (IPR) laws being imposed by transnational corporations (TNCs) and the rich countries. These laws include:

- the protection of plant varieties and farmers' rights act, which establishes TNCs' monopoly over seeds, makes Indian farmers bio-serfs and robs them of their age-old freedoms to save, exchange and sell seeds;

- the amended patent act, which allows seeds, plants, animals, genes and other life forms to be patented and indigenous knowledge to be pirated;

- the biodiversity act which gives free access to our genetic wealth and indigenous knowledge to biopirates within and outside India.

In response to genetic pollution that threatens the integrity of our biodiversity and globalisation that threatens our farmers, we are creating living economies and living democracies based on *swadeshi* and *swaraj*. Just as the seed has the potential to germinate and evolve and renew itself perennially, Gandhi's legacy has the potential to germinate, evolve, and renew our actions and strategies for freedom appropriate to our times and context.

From the seed, our *swadeshi* efforts have spread to organic farming, *jaiv kheti*, and fair and just trade. *Swadeshi* in the form of biodiversity conservation has evolved organically into the *swaraj* of *Jaiv Panchayat,* living democracy, resting on the resistance of *satyagraha* – non-cooperation with immoral, unjust laws that force patenting of life.

Gandhi's legacy lives on, and gives us hope to shape ever-new instruments to keep life, in all its diversity and integrity, free. Gandhi's legacy carries the seeds for the freedom of humans and all species. Gandhi's legacy is humanity's hope.

The living democracy movement

Twentieth century revolutions for social justice and people's freedom were largely based on a Cartesian view of the world and of social transformation. Even the metaphors used are Cartesian: 'What is your

position on...?' or 'What line should we take?' 'Positions' and 'lines' lead inevitably to arguments, conflicts and divisions.

The quantum view of the world has allowed us to transcend deterministic positions, to make transitions into the indeterminate. It has allowed us to accept uncertainty and non-separability. It has allowed us to think in terms of fields and spaces, not 'positions' and 'lines'. When even physics has given up on the false certainties of the mechanistic worldview, surely our engagements for sustainability and social justice should also move beyond the rigidities of mechanically perceived and articulated ideologies.

The amazing mobilisation for the World Social Forum during several consecutive years, are examples of an emergent politics

The success of movements at Seattle and Cancun, the amazing mobilisation for the World Social Forum during several consecutive years, are examples of an emergent politics – a politics based on diversity and self-organisation rather than monocultures and manipulation. That it has worked on both local and global levels is indicative of the potential of self-organisation as a basis of transformation politics at all levels.

The violence of corporate globalisation on the one hand and wars justified on grounds of shallow religious and narrow nationalist identities on the other demands a response that is simultaneously local and universal. It needs to be local in terms of production, both to reduce our ecological footprint and to create more livelihood and job opportunities; local, too, in terms of our diverse identities, rooted in biological and cultural diversity, in our sense of place and our sense of belonging. It must be universal because we share life with the rest of life, and humanity with all of humanity.

The dominant form of corporate globalisation takes a narrow, highly localised interest and imposes it as 'global', as 'universal'. The imposition involves deep structural violence, but it also creates vicious cycles of violence as identities are threatened, securities eroded, and a backlash emerges in the form of 'terrorism'. The universal cannot be a globally imposed local interest. It is the emergent quality of all people living by the universal principles of non-violence – non-violence to non-human life as ecological sustainability and non-violence to human life as social and economic justice. The universal is the unfolding of the potential of diverse and multiple locals, acting in self-organised ways but guided by the common principles of love and reverence for life. As Tolstoy wrote from his deathbed, it is:

…understanding that welfare for human beings lies only in their unity, and that unity cannot be attained by violence. Unity can only be reached when each person, not thinking about unity, thinks only about fulfilling the laws of life. Only this supreme law of love, alike for all humans, unifies humanity.

One of the legacies of the Cartesian mechanistic worldview is its totalitarianism. On the one hand, this allows the violent imposition of one's 'position' on others, with the conviction that this is for the good of the other. The Iraq war is supposed to have been good for the Iraqis. On the other hand, the totalitarianism of mechanistic universal impositions makes ordinary people hesitate to take the initiative for change because in a mechanically defined unity, it is either all or nothing.

As Gandhi observed:

It is necessary for us to emphasise the fact that no one need wait for anyone else in order to adopt a right course. People generally hesitate to make a beginning, if they feel that the objective cannot be had in its entirety. Such an attitude of mind is in reality a bar to progress.[5]

The living democracy movement (*Jaiv Panchayat*) is based on the acknowledgement that we can begin where we are, and we can imbue our everyday actions with the broadest of visions and the deepest of values. It embraces the principles of 'earth democracy' – that we are members of the 'earth family', that our deepest identity is our 'earth identity' and our highest duty is to protect all life on earth.

The Declaration of Jaiv Panchayat was made by 200 villages in June 2000. Since then the movement has spread to more than 6000 villages. It has been a major instrument for defending the seed and biodiversity sovereignty of the communities.

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5   Gandhi, M. K., 'Equal Distribution', *Harijan*, 25 August 1940.

Declaration of Jaiv Panchayat – The living democracy movement
5 June 2000

The work of Maharishi Jagdamni Rishi Atri, Mata Anusuiya and other saints has contributed to the conservation and sustainable use of all kinds of medicinal plants and floral wealth and other precious biodiversity of these mountains. The research was further enriched by Maharishi Charak and other saints and health practitioners who compiled the volumes of Sanhita and Nighantu detailing the uses and properties of our biological resources. These volumes were bestowed to the community for well-being and continue to live through the Ayurveda.

From our forefathers we have inherited the right to protect the biodiversity of our Himalayan region and also the corresponding duty to utilise these biological resources for the good of all people. Therefore we pledge, by way of this declaration, that we shall not let any destructive elements unjustly exploit and monopolise these precious resources through illegal means. So that in our communities and country we can truly establish a living people's democracy wherein each and every individual can associate herself with the conservation, sustainable and just use of these biological resources in her/his everyday practical living. This tradition of sharing shall be kept alive through the Jaiv Panchayat – the living democracy. The Jaiv Panchayat will decide on all matters pertaining to biodiversity. Through such decentralised democratic decision-making we will make real the democracy for life.

Cows, buffaloes, goats, sheep, lions, tigers and in fact all animals, birds, plants, trees, precious medicinal plants and manure, water, soil, seeds are all our biological resources and we shall not let any outsider exercise any control over them through patents or destroy them through genetic engineering.

As a community, we shall together be the guardians of our biological heritage.

One of the first mobilisations by the living democracy movement was a series of actions taken against the WTO and its TRIPs agreement. From 9 August 1999 onwards hundreds of village communities, organised as Jaiv Panchayats, served notices to the then director general of WTO, Mike Moore, as part of their campaign against biopiracy. In the letter the communities stressed their rights and stated: 'TRIPs has globalised and legalised a perverse and unethical intellectual property rights system, which encourages the piracy of our indigenous knowledge and subverts our decentralised democratic system.' They furthermore said:

Mike Moore was the Director-General of the World Trade Organisation from 1999 to 2002

We wish to inform you that we will not allow you to take decisions on matters that fall exclusively within our jurisdiction through our decentralised democratic system. On the basis of our inalienable rights that are recognised by our Constitution and the CBD, we will not permit WTO to undermine our rights and protect those who steal our knowledge and our biodiversity… We ask you to immediately amend TRIPs and exclude biodiversity from your global IPR regime, acknowledging our local rights to make laws and determine ownership and use patterns and to settle disputes.[6]

Mike Moore came to India in response, and the Government of India had to acknowledge the problem of imposing TRIPs on local communities in its submission to the WTO related to the review of TRIPs.

Following this we mobilised local action to respond to the undemocratic imposition of genetically modified organisms (GMOs) through the WTO. The citizens' GMO challenge is a global response of local and national citizens' movements to the US-initiated WTO dispute with Europe on GMOs.

However, on 26 December 2004 (the day of the Tsunami), the government passed a Patent Ordinance to implement TRIPs. Movements challenged it and declared their non-cooperation with seed patenting. On 2 March 2005 I accompanied a delegation of farmers' organisations to meet the prime minister, Manmohan Singh, to submit our declaration of non-cooperation, and our commitment to save and exchange seeds.

During the last few years Jaiv Panchayats have stopped water privatisation in Orissa and Uttarakhand. They have also fought against biopiracy. The latest biopiracy campaign is on the patenting of climate resilient crops.[7] Since the Jaiv Panchayat communities have been saving seeds of climate resilient crops, the claims by corporations to have invented these traits are clear examples of biopiracy.

The community biodiversity registers maintained by the Jaiv Panchayats have led to a resurgence of the use of traditional knowledge.

6   The full letter and associated correspndence can be found at: http://www.ratical.org/co-globalize/BPandWTO.txt

7   A good overview of the recent trends on patenting of 'climate-ready' genes can be found in the ETC group Communiqué issue 99, May/June 2008: *Patenting the 'Climate Gene'… And Capturing the Climate Agenda.* http://www.etcgroup.org/en/materials/publications.html?pub_id=687

Children have created school gardens for food production, women have created kitchen gardens and herbal gardens. In June 2009, a major gathering of the Jaiv Panchayats will be organised at Bija Vidypapeeth in Dehra Dun, northern India.

The living democracy movement is based on a local–global, micro–macro symbiosis. Participation in the Laws of Life conference at the global level in 1987 gave me the knowledge and inspiration to start Navdanya. The global movements to resist TRIPs and GMOs would not have emerged in the form they did without the new possibilities and potentials opened up by the action of local groups, such as Navdanya, on the ground. This provided valuable knowledge concerning the ways in which ecological farming methods and indigenous crops are superior to genetically engineered products like the golden rice and protein potatoes, as well as how the sharing of knowledge, seeds and biodiversity is a superior culture to the culture of enclosures. Our work on the articulation and defence of biodiversity and knowledge as a living commons through common intellectual rights, community seed banks and *Jaiv Panchayats*, has created alternatives, not just for local communities, but for all societies. We refuse to allow an enclosure of our last freedoms. And our resistance has opened up spaces in different spheres and different places for others.

What Next? Bija Vidyapeeth – education for earth citizenship

The events of 9/11 were a product of hate. The response to 9/11 was the globalisation of a culture of hatred and fear. We need to keep other cultures alive. We need to keep the culture of love and compassion and sharing alive.

That is why, in 2002, we started *Bija Vidyapeeth* – the School of the Seed – on the Navdanya farm. Satish Kumar, the founder of the Green College (Schumacher College) in the UK, had, for some years, been urging us to start a sister institute; 9/11 became the compulsion. It was inaugurated by Mohamed Idris, the founder of Third World Network, Edward Goldsmith, the founder editor of the *Ecologist* and Sulak Sivaraksa, a Buddhist scholar/activist from Thailand.

The name, the School of the Seed, is appropriate both to its place and concept. It is located at our community seed and biodiversity conservation farm. The perennial potential of seed to renew itself is the inspiration for our education for earth democracy and earth citizenship. The participants come from across the world and they learn universal

principles through the specificity of biodiversity, the soil, the water and the people of the Navdanya farm in Doon Valley.

Not only is there a global/local convergence. There is also a convergence of reflection and action, of intellectual growth and physical work – cooking, cleaning and farming. What *Bija Vidyapeeth* teaches is love and reverence for all life and respect and involvement in all aspects of human activity. It teaches reciprocity and mutuality, and participation, not just in intellectual exploration but in the work that maintains and sustains life. This includes work that has been considered 'menial' – the work of the peasants, of workers, of women. So much of human progress has been designed as escape from the physical work of sustenance and service. Yet this 'escape' is at the root of human alienation and exploitation, the non-sustainable use of the earth's resources, and the human health problems resulting from our working against our species' nature and our needs for connection and meaning.

Human identity has become so fragmented and narrow

Human identity has become so fragmented and narrow. So often it is defined in terms of professions, religions and nationalities – labels that separate us from ourselves, each other and the earth. *Bija* is education for our full human identity – as an earth identity – and our commonality with other humans. We are all dependent on the same soil, the same water, the same biodiversity. But our earth identity is not just about our being a member of the human species. We are members of the earth family – of life in all its diversity. All beings are related to us – they are our kin. Our fate is their fate; their fate is our fate. These lessons for earth citizenship are only partly learned intellectually through the best minds of our times. They are also learned experientially through participation in the life of earthworms and butterflies, through the amazing wonder of 600 crop varieties growing in partnership and harmony rather than conflict and competition. *Bija* is lived experience that teaches that cooperation, not conflict, is human nature.

Embodied learning is learning through the body, learning from the earth, opening up to learning in all the dimensions, all the processes that have been shut out in a Cartesian world of separation, division, objectification and a commodified world in which nothing has value outside the market.

Learning from nature and biodiversity about earth citizenship is based on engagement in practices that embody ecological values – connection, openness, generosity, appreciation, partnership, enquiry,

dialogue, celebration, conservation, protection. This practice-based learning has been devalued but it is essential to our survival.

In the words of Fritjof Capra: 'The process of knowing is the process of life... The organising activity of living systems, at all levels of life, is mental activity.'[8] Consciousness provides the 'frames' or mental structures through which we interpret our world, understand ourselves, find meaning. Enclosures of the mind, our thoughts and our consciousness are inner enclosures, just as enclosures of the commons – of the land and pastures, of rivers and biodiversity – are external enclosures.

Education has increasingly shrunk our learning, by shrinking the frames of our consciousness. Education as conventionally understood is the dissemination of knowledge that has been generated through formal research. The learner is an empty mind – Locke's '*tabula rasa*' – and education is a way of 'filling' the emptiness. *Bija* replaces this with an ecological approach to education. All minds are full of pre-conceptions and assumptions. Education is a transformation of this consciousness through practice. This change is necessary not only because the mechanistic metaphors of knowledge, education and organising are less and less effective in addressing issues of our times but also because they are in fact feeding and fuelling vicious cycles of violence and alienation.

When the self is perceived as being at war with nature and society, rather than part of nature and society, alienation and violence become 'natural' to being. Peace and recovery of our ecological selves requires that we re-embed ourselves in the web of life and the web of social relationships. This re-embedding is *Bija's* invitation to learning for an ecological consciousness and education for earth citizenship.

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8   Capra, F., *The Hidden Connections: Integrating the Biological, Cognitive, and Social Dimensions of Life into a Science of Sustainability,* Doubleday, New York, 2002.

VANDANA SHIVA is trained as a physicist and did her PhD on the subject of 'Hidden Variables and Non-locality in Quantum Theory' at the University of Western Ontario, Canada. She later shifted to inter-disciplinary research in science, technology and environmental policy, which she carried out at the Indian Institute of Science and the Indian Institute of Management in Bangalore. Dr Shiva has pioneered the organic movement in India and established Navdanya, the country's biggest network of seed keepers and organic producers. She also founded and directs the Research Foundation for Science, Technology and Ecology (RFSTE).

Dr Shiva has authored many books including *Soil Not Oil, Earth Democracy, Stolen Harvest, Staying Alive, Water Wars* and *Biopiracy.* She was awarded the Alternative Nobel Prize (Right Livelihood Award) in 1993 and serves on the boards of many organisations including World Future Council, International Forum on Globalisation and Slow Food International.

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Affirmation of cultural diversity – Learning with the communities in the central Andes

Jorge Ishizawa

A universe comes into being when
a space is severed or taken apart

<div align="right">

Spencer Brown, *The Laws of Form* (1972)[1]

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Pachamama, woman and the seed are the same;
they share the same *qamasa* (life spirit)

<div align="right">

Santos Vilca Cayo (1998)[2]

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Introduction

This article is motivated by a concern for the continued regeneration of the biological and cultural diversity present in the central Andes, covering parts of Peru, Bolivia and Ecuador. We at the Andean Project for Peasant Technologies (PRATEC) have been working with rural communities on this issue for the past two decades. PRATEC started its work in 1986 with the valorisation of traditional agricultural practices, and the knowledge implied in them, with the intention of compiling and disseminating technological booklets. To date, more than 2,500 such booklets have been generated and published. This documented knowledge, however, represents only one aspect of what we have been learning during the inspirational and exciting journey undertaken with the residents in these communities. The journey continues, as does our learning. Below is an attempt to summarise some of the main issues we have struggled with over the years.

The biological diversity that exists in this region, one of the 'hotspots' recognised by the United Nations Environment Programme (UNEP), cannot be explained by the local geography alone, with its diversity of ecosystems. Remarkable cultural diversity is also evident – a multiplicity of peoples whose livelihoods adapt, and are adapted by, these

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1   Spencer Brown, G., *Laws of Form*, The Julian Press, New York, 1972.

2   Cayo, Santos Vilca, Asociación Chuyma Aru, in *Crianza Ritual de Semillas en los Andes* (Ritual Nurturance of Seeds in the Andes), PRATEC, Lima, Peru, 1998, pp.13-65.

ecosystems. Nor is the biological diversity only about wild fauna and flora. It also involves an abundance of cultivated species with numerous varieties. This situation has existed for millennia and would not have been possible without sophisticated knowledge on the part of the people nurturing such diversity. International recognition of the value of such knowledge is increasing. For example, the Convention on Biological Diversity (CBD) and the Convention to Combat Desertification, signed at the Earth Summit in Rio in 1992, both highlight the value of traditional knowledge underlying the maintenance of biodiversity on the planet.

Further recognition of the importance of such knowledge in maintaining biodiversity requires that it is documented and shared more widely. We found these apparently straightforward tasks more challenging than we first imagined. What are the implications of using, for example, a scientific approach to compiling knowledge if the particular knowledge does not fit within the confines of such an approach? And how can that knowledge be effectively disseminated and shared with others? For us, this has not been a matter of ownership and intellectual property rights (IPR) but a question of how to express what exists in one knowledge system in a way that can be useful in a different knowledge system. In both cases the underlying challenge involves an encounter between two distinct 'cosmovisions' – or worldviews.

Central to the discussions in this article is the encounter between different cosmovisions, and its implications for intercultural dialogue in general and for the promotion of cultural diversity in particular. A cosmovision refers to the basic ways of seeing, feeling and perceiving the world. It is made manifest through the ways in which a people act and express themselves.

PRATEC chose the valorisation of traditional agricultural practices as an entry point to work with communities as a result of past experience and our belated recognition that the 'beneficiaries' of so-called rural development projects were far from being helpless objects in need of external intervention in order to achieve the status of civilised peoples. As university-trained professional technicians, the founding members of PRATEC had been involved in various forms of modern agricultural technology transfer, and honesty demanded the admission of our utter failure. What had been achieved was the accumulation of infrastructure built by us and other development workers, left unused by the communities once the project personnel had left – the so-called 'archeology of development'.

History records that a highly complex agrarian civilisation developed in the central Andes. Were five centuries of colonisation enough to obliterate it? We, along with other development workers, had proceeded for years on the assumption that this was the case – that there was nothing left of it. However, our initial explorations convinced us that the practices we were documenting were very much alive. Agricultural modernisation, through state programmes and foreign development projects, had been a distraction and had contributed to the partial abandonment of traditional practices in some places. However, community elders still kept alive the memory of ancient know-how. This included knowledge about a great variety of practices, from sowing, planting, harvesting and storing, to reading natural signs for weather forecasting. Later we realised that the elders also maintained the memory of ancient 'know-what'. Indeed, they knew what to do to recover the rituals for petitioning for rain, appeasing the forces of hail and frost, and warding off plagues.

Community elders still kept alive the memory of ancient know-how

From development to cultural affirmation

We directed our efforts towards the recovery of memory in the company of younger colleagues. They had left their villages to pursue higher education and a life of progress. Disillusioned with their agronomist profession and the formal education behind it, they were searching for alternatives. Together we realised that the development efforts set in place had had the purpose of more or less radically transforming communities whose state was diagnosed as backward and generally lacking. The means to achieve this was assumed to be the introduction of technological packages. These ranged from those of Green Revolution origin (1970s) to friendlier approaches based on introducing appropriate technology (1980s). Today however, despite the growing recognition of the importance of the communities' traditional knowledge, the approach of professionals remains one of applying a technical protocol to validate traditional knowledge according to the criteria of modern science and technology. The whole spectrum of initiatives, from the indigenous technical knowledge and traditional ecological knowledge movements to the disciplines prefixed by *ethno-*, inherits the double bind of participatory research. The outside technical agent sets not only the agenda for the intervention (if not, why the need for participation?) but also the approach to be used. The result is that local knowledge is subsumed into techno-science, and local approaches are ignored. So far, little of substance has been produced. The question is whether the lack of results (measured by the abandonment of the approach and practices as soon as the project personnel leave) is due to the

limitations of the methods we have applied. Is it only a matter of searching for the 'right' methodology? Or is the answer to be found in the theory supporting the intervention? Reflecting on our own and others' experience over many years, we believe that the time has come to ask whether the reason for the poor results is to be found in something deeper: something that belongs to the domain of what is taken for granted in the techno-scientific approach we adopt, or more generally, in the way we approach life. Does this something involve an epistemological problem – that is, does it question the conditions, or the possibility of, obtaining knowledge pertinent to local conditions through a techno-scientific approach? If it does, what alternative approaches could be used? Or is the problem, rather, of an ontological nature (concerning our taken-for-granted understanding of the nature of being and of reality)?

Our present conviction is that the problem goes beyond the ontological. Building new categories with the hope that they will allow translation between different knowledge systems will not enable us to approach a cultural universe with which we are unfamiliar. Intellect does not suffice. The basic issue at stake is, rather, the fact that there are different cosmovisions at play, and different ways of being in the world. We are thus constantly forced to understand a peasant's testimony reflecting his/her knowledge, perspective or explanation in the context of his/her own cosmovision. To understand what is meant here we would like to delve into the experience shared by Marcela Machaca Mendieta in her brief but important paper titled 'Planning: *Quipa Hamuypaq, Ñawpapaq, Patachay*?' The paper offers her reflections on an interesting intercultural experience: the workshop for community planning undertaken in 1997 by her organisation – Asociación Bartolomé Aripaylla – with the authorities of the twelve *barrios* of the community of Quispillaccta in Ayacucho department, Cangallo province:

Planning as such is not part of the communal style of life

> The first difficulty encountered during the workshops concerned how to refer to 'planning' in our own terms. There is no equivalent word in the local language because planning as such is not part of the communal style of life... Some of the terms used in the translation were: *patachay* which means 'one behind the other', or *quipa hamuypaq*, which means 'that which will come afterwards', but *quipa* also means 'behind', 'delay', or it might also be 'ahead' and *hamuypaq* is 'what is coming'. Another closely related word is *ñawpapaq* which is 'ahead', but is also 'behind' or 'before'. Each working group succeeded in finding and using their own terminology as alternatives to technical vocabulary. Examples include *tupachinakuy*, *patachay*, *kam a chinakuy*, 'steps to walk', 'weaknesses
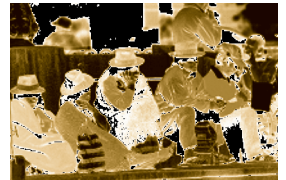
of our village' – phrases which are not close to the technical language of the planner.[3]

The translation difficulties already betray some of the deeper questions regarding the cultural encounter. One question, for example, concerns the attitude brought to the exercise by the participants:

> This way of relating with reality requires a distance between the planner who considers himself a subject and everything else as objects ready for manipulation... For example an activity planned in December for a ceremony for the Earth in March, implies having provisions for buying ritual elements, including the probable site for the deposit of the offering... Every ritual or offering takes place in conversation with *Pachamama* (Mother Earth) and the conversation flows between equivalent persons, is born spontaneously from direct contact, from affection and the desire to do so, which could not have existed with a pre-planned organised decision-making. Hence we take distance from our own feelings and emotions, and repress all feeling of immediacy and of rapport...which happens among persons in the living Andean world.[4]

What we want to highlight in this example of planning in a high Andean community is the lack of correspondence between the planners' deliberate concentration on future activities and the way of the local peasant community culture where 'everything has its own time' and, hence, it is unnecessary to anticipate anything in any detail. The required attitude is rather one of tuning oneself in with the world, of attentive listening, of conversation. Marcela Machaca quotes don Marcelino Mendoza who says: 'One cuts the wool of *alpacas* and sheep in their own time and rhythm. When this time is I cannot specify because it depends on the rain, etc. The wool is cut during the rainy season; this is favourable for good growth of wool for the following year and it simultaneously cleans the dirty wool. If one does not cut during this period, the wool will not grow due to the cold. This is how I cut the wool and also the way the majority of my neighbours do.'[5] This lack of correspondence between the different cultures occurs at the level of what is taken for granted in each cultural group

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3   Machaca Mendieta, Marcela, 'Reflections: Planning, Qipa Hampaq, Ñawpapaq, Patachay?', *Forests, Trees and People Newsletter*, No. 35, March, Uppsala, 1998 p.21; Machaca Mendieta, Marcela, 'Planificación: ¿Qipa Hampaq, Ñawpapag, Patachay?' *Diálogos. Enfoques Participativos para el desarrollo rural*, Quito, Ecuador, 1997.

4   Machaca Mendieta, Marcela, 1998, *op. cit.* and Machaca Mendieta, Marcela, 1997, *op. cit.*

5   Machaca Mendieta, Marcela, 1998, *op. cit.*

and is regenerated in daily life. This is what we mean here by a difference of cosmovisions.

For a number of years now we have aligned our work with Andean communities in the direction of Andean cultural affirmation. The need for and possibility of cultural affirmation has been expressed during the five centuries of colonisation since the Spanish invasion in the 16th century. The independence gained in the 19th century meant only that power was taken over by the local descendants of the colonisers and that the situation of domination over the first peoples' cultures continued basically unchanged. Yet the people of the central Andes have resisted efforts towards their modernisation (understood as their transformation along the lines of the Western cosmovision). Colonisation has sustained the official assault on local knowledge and, more recently, the so-called 'modernisation (industrialisation) of agriculture' has promoted the outright erosion of biological and cultural diversity. In spite of this, it is increasingly recognised that the communities of nurturers of biodiversity are still alive and active in Peru. Hence, however despised, neglected and reduced during centuries of colonisation, their strength as a people resides in their unique mode of living in diversity that developed in these lands.

What, then, is meant by cultural affirmation? Eduardo Grillo, one of the founders of PRATEC, has described it in the following way:

> Andean cultural affirmation is the attitude of vitality characteristic of those of us who are the living Andean world (deities [*huacas*], entities of nature [*sallqas*], humans [*runas*]). In continuous and animated conversation, charismatically led in each moment and in turn by those among us who have the best aptitude for it, we come to an agreement, with the participation of each and every one, in the nurturance of the harmony that is most congenial to the world that we are, according to the circumstances that each moment requires of us…

> Andean cultural affirmation is neither a theoretical position nor a principled position, rather it is the living of the Andean people… Andean cultural affirmation is not a political position. Our living world of nurturance is ignorant of power or of struggles for power… Andean cultural affirmation is not a position of violence. Nurturance knows nothing of confrontations, only of caresses, of

murmurs and of conversations. This is not a land of voluntarisms but of revelations.[6]

In our understanding, cultural affirmation is the process by which peoples who live in a place remember and regenerate their traditional practices, nurturing their *pacha* (local world) and letting themselves be nurtured by it. Since in the case of the central Andes, this local world is agrocentric, nurturance is the mode of being of the Andean *pacha*. Andean cultural affirmation is the continuous regeneration of this mode of being. This we have come to learn through our experiences being with the communities – it is not our invention. An expression that we found in different forms in both native languages (Quechua and Aymara) is: 'We nurture while being nurtured.' Mutual nurturance is the main characteristic of Andean life, as Julia Pacoricona Aliaga from Conima, Puno, clarifies with reference to the potato plant:

> The potato is our mother because when it produces fruits it is feeding us, clothing us and giving us happiness, but we also nurture her. When the plants are small, we call them *wawas* (children) because we have to look after them, delouse (weed) them, clothe (hill) them, dance and feast them. This has always been done. My parents taught me to nurture them with affection and good will as we do with our children.[7]

Accompanying cultural affirmation

Cultural affirmation, then, is not an intellectual matter. For the people of the central Andes it is the sustained regeneration of biocultural diversity through the activities of mutual nurturance undertaken by the *campesinos* and the entities that make up their *pacha*. PRATEC's work in support of cultural affirmation included running a one-year university course on 'accompaniment', which was offered to young agronomists and other professionals. In the context of this course, accompaniment meant living together and sharing with communities that affirm the Andean peasant mode of living, a way of life that is based on the nurturance of the *chacra* – that is, the cultivated field and the local landscape. The accompaniment of this sustained regeneration involves elements of reflection and requires an epistemology that
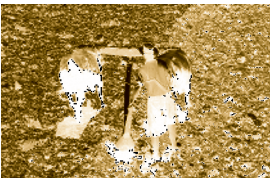
A way of life that is based on the nurturance of the *chacra* – that is, the cultivated field and the local landscape

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6   Grillo Fernández, Eduardo, 'Development or Cultural Affirmation in the Andes?' in Appfel Marglin, Frédérique (ed.) *The Spirit of Regeneration: Andean culture confronting Western notions of development*, Zed Books, London, 1998, pp.140-141.

7   Terre des hommes – Germany, *Children and Biodiversity in the Andes*, Lima, 2001, p.23.

supports this accompaniment. Such an epistemology is addressed not to the Andean campesinos, whose wisdom orients these reflections, but to the accompanying professionals.

Their motivation for accompanying the peasants is important. It is necessary that they believe that the Andean peasant mode of living is a viable alternative to globalisation and that its nurturance is an adequate mode of being in the specific conditions of the central Andes. This belief underlies their support for the affirmation of the Andean peasant mode of living.

Coming from these rural communities, and disillusioned with the world of progress, they were in one sense going home, in a process that Néstor Chambi from the Asociación Chuyma Aru calls 're-ethnification'. Wiser than before, and having learnt some humility, they soon realised that more humbling experiences were in store for them. The late Sergio Cuzco, who founded the Asociación Atusparia, in the Northern Peruvian Andes of Cajamarca, had this to say about his experience in the late 1980s:

> When we left the University, we tried to introduce all the innovations we had learned in the work we carried out with a NGO. We had resources, we could afford the *minga* (contribution to the common fund), bringing food. The peasants accepted all of it, saying 'It's OK'. Soon we realised that all the common work achieved was ruined by the campesinos themselves. We were distracted a little and what we had done was no longer there… Having left the NGO in frustration we visited the campesinos and they said very frankly that we were doing wrong. I learned that they themselves had to decide how they were going to improve the *chacra* (cultivated field).[8]

So what followed was an extended effort to learn from the campesinos:

> To engage in a relationship of equivalence with the campesinos… we got a *chacra* and we established a different relationship with the campesinos, a relation of reciprocity: we help them, they help us. What we get from outside the community is for the *ayni* [collective labour]… We are strengthening what the campesinos do. We tell them: What you have to improve is according to your understanding of how the *chacra* must be improved. It is a strengthening

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8   PRATEC, *Afirmacion Cultural Andina*, PRATEC, Lima, 1993, pp.140-141.

Each *campesino* conducts his work according to his understanding and his possibilities

of their thinking, of their practices. We do not propose blueprints, because we are very much aware that the *chacras* are not all the same, because each *campesino* conducts his work according to his understanding and his possibilities.'[9]

It was through such experiences that these 'accompanists-in-training' realised that their interest lay in letting themselves be nurtured by the communities in their efforts to decolonise their minds. Only by letting go of their technical baggage and assuming mutual accompaniment with their elders could they become part of their community and thus achieve some degree of effectiveness in their intervention. Furthermore, in the process they gradually acquired the strong conviction that the peasant mode of living is a valid alternative to the cultural homogenisation embodied by globalisation. Walter Chambi, a member of the Asociación Chuyma Aru, tells of his experience as an accompanist of his own community in Conima, Puno, in a personal communication to Loyda Sánchez:

> There are several ways of understanding accompaniment. In order to accompany, the field personnel must be in the communities helping in the nurturance of the *chacra*, visiting the families. If, during a visit, the family is threshing, the accompanists must join to help in the threshing and, in the rest periods, they encourage reflection on the different aspects of nurturance or other tasks, reporting on the way communities do it in other places, on secrets, on rituals, etc. When the field personnel come back after some time they ask the community how they do it. The field personnel motivate reflection in such a way that the practices they document are recreated according to the *campesino*'s own circumstances. To do this one has to be well prepared in everything, that is, one should have good field experience because one is directly helping in nurturing activities. One also motivates reflection and to do that one must know many things and be prepared to provoke fruitful conversation.

Walter's description emphasises one aspect of accompaniment, the technicalities, but leaves out the other equally important aspect: how the accompanist is also accompanied. After all, according to its Latin etymology, to accompany means to share bread together. Juan Arturo Cutipa, a young and accomplished accompanist from Asociación Chuyma Aru, told Loyda Sánchez of his mother's gentle teaching of community values:

9   *Ibid.*

When I helped my parents in the fields on Saturday and Sundays I saw at harvest time that what they did was out of affection and reciprocity. I used to tell them that they were wasting money. Why are you so generous with helpers? If they are not good at work, stop hiring them. You can replace them with more efficient hands. My mother used to say: 'This lady has no one to work on her *chacra*. Even if she works little, she talks with us and makes us laugh and thus furthers our work. Moreover, if we do not share food with her it could even be a sin and God would chastise us. Who can give her something, if she does not have anyone to make *chacra* for her?' I was astonished, thinking that it was entirely her problem. I told my mother: 'If she does not have anyone to make *chacra* for her, at least keep her from bringing her cow. It is eating what our cow should eat. My mother said: 'Her cow does not eat a whole lot. Moreover, we could waste the straw. Let her bring her cow. Otherwise, who would take care of it?' With my university student's eyes I had completely forgotten mutual aid, reciprocity, compassion, even respect, all of which are most important in the field. At harvest time I realised that men worked more. My understanding then was to hire only men, or at least to pay them more. My mother gave them the same pay in kind. I then thought that paying more to the better helper would motivate others to work more but it just did not work that way.

Even if she works little, she talks with us and makes us laugh and thus furthers our work

The role of the accompanists and the skills they needed were thus quite different from those of the professional technicians. Indeed, what the peasant communities needed to further the nurturance of their *chacras* was not the spread of modern technical agriculture. Instead, they needed to recover the knowledge for nurturance still present in the memory of the community elders. Early on it was evident that the educational system was not attending to this need since none of the departments of agronomy in the universities in the Andes taught Andean peasant agriculture at all. At the same time, the accompaniment of cultural affirmation crucially depended upon the training of colleagues who could offer, in the field, concrete alternatives to the current approaches of agricultural/rural development promoted by government and international organisations. These colleagues also started participating in the courses, sharing their field experiences. In this way they became a crucial source of inspiration for the reflections of the PRATEC team. It was in these circumstances that PRATEC, prompted by the request of the vice-president of the National University of Cajamarca, started in 1989 an educational programme with the explicit purpose of training accompanists for cultural affirmation of Andean communities, in collaboration with local universities.

The curriculum was based on the idea that whoever wants to exercise the role of accompanist must realise that she/he has been subjected to colonisation. Colonisation is dual. The training received during the long period of formal schooling devalues the *campesino* mode of living, presenting it as a stage in the history of mankind that is outdated. Colonisers consider it to be an ignorant way of being in the world, subject to the determinations of a hostile nature, and the 'obligations' inherent in community life. Also, the knowledge of the ancestors is looked on with contempt and considered the reason for the evident poverty and deficiencies of *campesino* life. This attitude affirms the dependence of the professional on a knowledge transferred without context and whose relevance in a new milieu is based more on faith and the power of those who originated it than on factual verification. What makes overcoming colonisation personally difficult is the seeming impossibility of renouncing the privileges of professional status and the cognitive authority that professional training grants.

The PRATEC training programme for accompanists focused on the contrast between the Western worldview and an interpretation of the Andean cosmovision. The accompanist was prepared for a permanent dual task. On the one hand, she/he was trained to support the regeneration of the Andean mode of living. On the other hand, she/he was prepared to make a deliberate effort to decolonise her/his own mind. This consisted in making explicit to her/himself, and to others, what it is that she/he takes for granted and which prevents the healthy regeneration of life in the Andes and on the planet. The tricky aspect of this challenge is the ambiguous role of modern science and technology as provider of material wealth and, simultaneously, complicit in causing the ecological crisis.

The part devoted to the affirmation of Andean life requires participants on the one-year course to learn about five agricultural practices from the campesinos in their *chacras*. This gives them the opportunity to learn to listen humbly to expressions of traditional wisdom. They are also required to write a monograph on the testimonies collected during their accompaniment. Both components of practical work in the course have allowed PRATEC gradually to build up a cognitive *corpus* on traditional *campesino* knowledge. This has stimulated a discourse on the Andean 'life-world', which in turn has oriented field programmes and training. In the words of environmental philosopher David Abram:

> The life-world is the world of our immediately lived experience *as* we live it, prior to all our thoughts about it. It is that which

is present to us in our everyday tasks and enjoyments – reality as it engages us before being analysed by our theories and our science.[10]

The programme was offered for 10 years during the decade 1990-99, and one of its most important outcomes has been the formation of a number of Nuclei of Andean Cultural Affirmation (NACA). These are small community-based organisations, staffed by graduates of the annual course for accompanists. After completing the course several of the course participants had decided to move back to their own community so they could become part of the process of Andean cultural affirmation.

On the epistemology of accompanying Andean cultural affirmation

By definition, epistemology is an examination of the origins, nature, methods and limits of knowledge. However, it is entirely placed within the Western intellectual tradition. There is no epistemology (as there is no planning) in the life of the peasant nurturers of the central Andes. This intellectual path to reflection on knowledge is unknown here. We propose, therefore, a wider understanding of epistemology, which does not reduce it to a theory of scientific knowledge but allows it to comprise the spectrum of ways of accessing the knowledge that facilitates the flow of life in a certain place.

In the context of accompanying cultural affirmation, epistemology will be understood as reflection on the conditions of a rigorous knowledge capable of supporting the accompaniment of a culturally different group from the one to which the accompanist belongs. Here we are taking as reference a more general case than the one that Néstor Chambi called re-ethnification. It is the case of an interested technical outsider. Let it be clear, therefore, that the present reflections remain within the framework of the Western intellectual tradition. They can be pertinent to the accompanying person in her/his efforts to achieve an effective and enriching accompaniment but they do not pretend to be useful for the communities that are accompanied.

The challenge for accompanists trained in the Western intellectual tradition is to understand the basics of the other culture – that is, they must see the other and acknowledge the other's knowledge as valid.

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10   Abram, David, *The Spell of the Sensuous: Perception and language in a more-than-human world*, Pantheon, New York, 1996, p.40.

This demands that their spheres of knowledge encompass the other's, or at least that they acknowledge and respect that the latter exists in its own right. They must also endeavour to understand it from its roots. Hence, an epistemology for accompanying cultural affirmation should be oriented to supporting the elaboration of an interpretation of a cosmovision radically different from the modern Western cosmology – in this case, the cosmovision of the peasant nurturers of biocultural diversity. In this way this epistemology can help make effective the possibility of mutual learning.

At this point, however, it is important to note that PRATEC has attempted to follow three separate but complementary paths in its work. One is the task that PRATEC has carried out since its inception – that is, the formulation of an Andean discourse based on the expressions of the Andean peasants themselves, taken on their own terms. The epistemology implicit in this effort has sought to further Andean cultural affirmation. In our case, it has taken the form of an epistemology that contrasts with the one underlying Western science and technology, and is sometimes formulated in direct opposition to Western categories. It has proved useful in providing the impetus for the decolonisation of our minds. However, most of our Western colleagues have felt all along that it was an exclusive position that did not welcome other epistemologies. An illustration of adopting such an epistemology will be provided in the next section.

The second path in the search for an adequate epistemology has been the exploration of alternative ontologies and their corresponding epistemologies within the Western tradition itself. This exploration involves a critical examination of modern Western tradition and an attempt to recover a non-modern approach that is hospitable to other traditions. In our view Ivan Illich's work is an exemplar in this search.
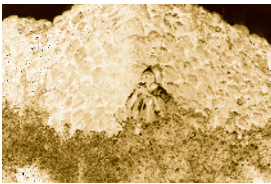
The term cosmovision has to do with basic forms of seeing, feeling and perceiving the world

A third path appeared, actually as a deepening of the first, when we realised that contrasting an epistemology based on the Andean lifeworld with modern Western epistemology can lead to a dualistic position that effectively precludes conversation with other cognitive traditions. This runs counter to the communities' present demand for radical cultural diversity, as documented below in the section on rethinking education in the Andes. Thus, the accompanied communities themselves accompany and nurture the accompanists, gently but firmly posing their agenda, which contains challenges with important epistemological implications.

As mentioned above, the term cosmovision has to do with basic forms of seeing, feeling and perceiving the world. It is made manifest by the forms in which a people acts and expresses itself. This means that a cosmovision does not necessarily correspond to an ordered and unique discourse (cosmology) through which it can be described/explained and understood. In some cases the only way to understand a cosmovision is through living it – by sharing experiences with people who sustain that mode of living and that life-world.

The life-world of the Andean communities as nurturers of biocultural diversity centres on *campesino* agriculture. *Campesino* agriculture is the specific form of 'being in the world' of Andean peoples, who nurture a diversity of plants and animals while letting themselves be nurtured by them, and by the local world to which they wholly belong. The centre is the small cultivated field, the *chacra*. It is important to highlight this because, in the Andean life-world, agriculture is not considered to be an earlier stage of development than industrial civilisation. In industrial societies farming has become agricultural industry. Nor should Andean agriculture be seen as an equivalent of European peasant agriculture where the rural way of life has been subordinated to the sustenance of the cities ever since the late Middle Ages. The wonderful 'fresco' of agriculture worldwide created by Jack Harlan in *Crops and Man*[11] shows the great diversity of species and agricultural systems throughout the planet (and the non-hierarchical relationship among them) even though his references to the central Andes do not stem from first-hand experience. It is worth noting, for instance, that in many important respects Andean *campesino* nurturers are closer to the general attitude of hunter-gatherers than to the farmers who practised agriculture in Europe in the early Middle Ages and who sought to exert increasing control over resources and nature.

The insistence on the centrality of the *chacra* is also because it provides the best expression of the nurturance that is the basic attitude in life of the *campesino* nurturers of diversity. It is through nurturing and being nurtured by the *chacra* that we can also learn to nurture in other contexts.

The concept of culture has, like that of cosmovision, an exceptional number of meanings, and is thus subject to misunderstanding. Here we are using it to mean 'a people's way of life'. In the case of Andean culture, 'people' include not only the human communities but also

The concept of culture has, like that of cosmovision, an exceptional number of meanings, and is thus subject to misunderstanding

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11   Harlan, Jack R., *Crops and Man,* 2nd edition, American Society of Agronomy, Inc. / Crop Science Society of America, Inc., Madison, 1992.

their deities and the place itself, with its mountains, stones, rivers, lagoons, stars, and so on. In this sense, 'culture' is equivalent to 'cosmovision'. We are not using it as a term that refers to a discourse on the 'customs' of a people but to the form in which it regenerates its life on a daily basis.

A distinction that can be made in Spanish but not in English is that between *saber* and *conocimiento*. Both translate into English as 'knowledge'. Hereafter the Spanish words have been kept to make a distinction between them, following Eduardo Grillo.[12] The distinction is crucial in order to highlight the radical incommensurability of the two worldviews. Here again we have to clarify that this does not correspond, even though there are some parallels, to the distinction between *episteme* and *techné* proposed by Steve Marglin.[13] For Marglin, they are two systems of knowledge, distinct and equivalent, which *complement* each other. The problem for him is that modernity has established a hierarchy between them, leaving *techné* in an inferior position, when not disregarding it altogether.

For us, *conocimiento* is the characteristic result of Western modernity, which can be understood, in a fundamental sense, as a project of knowledge. It seeks dominion over nature through the application of systematically acquired knowledge. *Saber*, in contrast, happens when tuning oneself in with the circumstances of life in the local world or *pacha*. Thus, it is circumstantial and strictly local, not general and universal.

In our understanding, *conocimiento* is distinguished from *saber* in a constitutive manner by the attitude of the knower, and in a derived form, by the method by which it is obtained. The mainstream paradigmatic knowledge of today is technical, scientific knowledge. At this point we will not delve into the possibility of complementarity between *saber* and *conocimiento*, and simply indicate that they imply different attitudes, as will be explained in the context of cultural diversity.

In the table on the next page some of the attributes of *conocimiento* are presented and contrasted with Andean Amazonian *saber*:

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12   Ishizawa, Jorge and Eduardo Grillo, 'Loving the World as it is: Western Abstraction and Andean Nurturance', *ReVision*, Vol. 24, No. 4, Heldref Publications, Washington, DC, 2002, pp.21-26.

13   Marglin, S. A., 'Losing Touch: The Cultural Conditions of Worker Accomodation and Resistance', in Apffel Marglin, F. and Marglin, S. A. (eds), *Decolonizing Knowledge*, Clarendon Press, Oxford, 1990, pp.217-282.

Conocimiento	Saber
Universal	Local / contextual
Cerebral	Sensuous / nurturing
Impersonal / disembodied	Embodied in the *ayllu* (Andean extended family including natural entities and deities)
Articulated / explicit	Implicit / tacit
Analytic	Holistic
Unique access as the result of the application of a specific method	Multiple ways of access: watching and doing; through dreams; in master-apprentice relationship
Distance	Immediacy
Technical gaze	Involvement
Hierarchical opposition of subject / object	Equivalence
Theoretical	Lived

The need for clearly distinguishing between these two ways of know-ing became apparent early in our work with cultural affirmation – that is, since we started on our journey. This was not only because we believed in the intrinsic worth of the Andean life-world in its own context but also because we realised that a different life-world im-plied a different epistemology. This was made much clearer when we were invited to participate in the process of formulating a Global En-vironmental Facility (GEF) funded project on the *in situ* conservation of native plants and wild relatives. Five other institutions, both pub-lic and private, also took part in this formulation process. During the process, which began in 1995, it became evident that in this particular area of knowledge – the *in situ* conservation of a diversity of plants – modern science and technology proved counterproductive. The re-sults of its application had been a radical reduction of biodiversity and the spread of monoculture throughout the world, while traditional

cultures still keep diversity. The knowledge about conserving plant diversity that existed with the Andean peoples was richly substantiated during the five years of project implementation (2001-2005). For us, it also strengthened our conviction of the pertinence of the distinction between *saber* and *conocimiento.*

One of the ways of incorporating the contribution of traditional knowledge in the understanding of biodiversity and its conservation has been to subsume it into the modern scientific canon by validating it through the application of techno-scientific protocols. However, the techno-scientific strategy has been *ex situ* conservation in gene banks. On *in situ* conservation only the traditional knowledge of indigenous and peasant communities, has proved effective. It is not just a matter of different strategies. The difficulty does not stem from methodological approaches but from the incommensurability of the cosmovisions involved.

The epistemology we are seeking to elaborate hopes to help outsiders understand a specific mode of being in the world that corresponds to a unique form of agriculture expressing a particular cosmovision. The contrast with Western technicised civilisation is stark and poses the question: What use is such traditional knowledge, based as it is on traditional agriculture, when this is increasingly regarded as a marginal activity? To answer this question it is pertinent to remind ourselves what it is, exactly, that the Western-trained technical professional knows. In school she/he has learned the application of a systematic method to solve diverse problems from a specific point of view motivated by an economic purpose. This systematic method is intrinsically oriented towards the mechanisation of increasing portions of the planet, since it is assumed that this can bring these portions under human control and management. Control and management and the subsequent domination of nature have been the objectives and results of this mode of knowing the world. It should not surprise us that there is now much evidence that science and technology are major contributors to the present ecological crisis. Moreover, control and management demand mechanisation and 'artificialisation' and hence the homogenisation of components. Science and technology have great trouble dealing with diversity and often see it as an obstacle. For all these reasons the knowledge of the professional technician, taught in the formal educational system, today contributes to the ecological crisis and the destruction of diversity on the planet.

Perhaps the most important difference between the epistemologies for these two different cosmovisions is summarised in the quotes from

It should not surprise us that there is now much evidence that science and technology are major contributors to the present ecological crisis

Brown and Vilca Cayo introducing this article. In the Western tra-
dition the basic intellectual operation is that of categorisation, of dis-
tinguishing one thing from another. It creates the world and makes
logical thinking both possible and essential. This basic operation has
consequences that are generally taken for granted. It is reflected in the
fact that European languages, including Spanish, are increasingly lan-
guages of objects. The Cartesian subject–object dichotomy forms the
basis of a relationship of human domination over the other entities of
the *pacha* (local world). At the same time it individualises knowledge,
basing it upon the certainty of the human that knows. Just as the Car-
tesian *res cogitans (*thinking matter or mind*)* is an individual, the *res ex-
tensa* (the world at large) is also populated by individuals. However, as
Chet Bowers has written[14] all language is used to communicate about
relationships and what Western understanding does is to emphasise the
relationships among objects, hiding at the same time the relationship
of the cognisant subject with these objects. A pertinent example is the
notion of 'resource' that refers, in the common understanding, to the
collection of objects at hand for given purposes. But the relationship
implies human domination over nature.

We also owe to Chet Bowers[15] the observation that 'language also
communicates the culture's understanding of the attributes of the
participants in the relationships, thus reproducing its moral codes'.
He elaborates:

> In other words, how the culture understands the attributes influ-
> ences what is understood as the appropriate moral behavior. For
> example, in the English language, the word 'weed' communicates
> the modern Western understanding that it has no useful or impor-
> tant attributes, i.e. it is morally acceptable to eradicate it. Likewise,
> the word 'wilderness' carries the assumption that part of nature is
> out of control, a source of danger, and thus needs to be brought
> under human control and exploitation. Today, many now associ-
> ate the word with being pristine and free of human exploitation,
> and thus the idea of cutting old-growth forests and clearing it for
> housing, etc., is viewed as immoral.

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In the case of the Andean languages, the quote from Santos Vilca is a
succinct statement that encapsulates Andean cosmovision: *Pachamama*
(Mother Earth), the woman and the seed are the same person – the

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14 Bowers, C., *Educating for an Ecologically Sustainable Culture: Rethinking Moral
    Education, Creativity, Intelligence and Other Modern Orthodoxies,* State University of
    New York Press, New York, 1995.

15 *Ibid.*

three are incarnations of the same *qamasa* (life-spirit). This implies, as we understand it, that distinctions are not helpful for understanding the Aymara life-world. Again this is not our fancy. In the February festival of the first fruits, which is a celebration of the *chacras*, people are considered as seeds. The male participants (both visitors and villagers) are *muchus* (grains) and the female participants are *ispallas* (tubers). All are deities in their human form. Throughout the ritual they are addressed as *muchus* or *ispallas*. Their relative abundance is a sign for the coming year – more tubers indicate a rainy year, more grains a dry year.

The purpose of the *saber* that goes with this cosmovision is not to manage community resources effectively for increased economic income. Rather, it is for tuning in with the variable circumstances that are lived in the Altiplano.

Chet Bowers[16] has introduced us to the notion of root metaphor as a way to clarify what constitutes cosmovisions and how they can be expressed. This notion recognises the profoundly stratified nature of language and thought considered from their metaphorical character. Root metaphors are located at the foundational level, the layer that is taken for granted and is an integral part of the cosmovision of the human group that uses them. These root metaphors guide the analogical language and find expression in the higher stratum of iconic metaphors and the lower stratum of image words. Probably, the central root metaphor of the modern cosmovision is that of mechanism, the view of the world as a machine. 'The brain as a computer' is a powerful contemporary iconic metaphor corresponding to such a root metaphor and makes possible the associated metaphoric expression 'architecture of the brain'. Likewise, the image words that are derived from a mechanistic way of thinking include part, function, experiment, efficiency, measurement and control. The mechanistic root metaphor has not only influenced how the parts of the body are named or described (systems, heart as a pump, architecture of the brain, and so on) but also how, for example, Western agriculture, education and architecture are approached.

A root metaphor underlying Andean cosmology is that of the world as a weaving or a web ordered by affection and respect and woven by means of mutual nurturance. Associated with this are iconic metaphors such as 'regeneration' and 'conversation'. These expressions in English do not fully express what the Quechua and Aymara say.

16   Bowers, C., *The Culture of Denial: Why the Environmental Movement Needs a Strategy for Reforming Universities and Public Schools*, State University of New York Press, New York, 1997, pp.204-206.

However, despite the limitations of translation, the possible connec-
tions between cosmovisions can be made evident through the use of
metaphor. The example of the planning exercise mentioned above
presents us with one such effort based on the cosmovision of high
Andean communities today. Even though it was undertaken in the
context of planning an outside intervention that could be unwittingly
colonising, the involvement of cultural mediators belonging to the
community set off a process of collective reflection on what could be
done for the community's cultural affirmation.

A cosmovision is expressed in language, meaning all possible forms
of expression, not only speech. For this reason, language is one of
the aspects that are taken for granted in a cosmovision. It is perhaps
its most hidden aspect. In the realm of formal education for instance,
it is assumed that literacy is a higher stage in human development
than oracy. Hence reading (initially often out loud) and writing are
imposed as prerequisites from an early age. However, as Abram has
pointed out[17] its centrality in the search of knowledge marginalises
the other senses, privileging sight and hearing, and limits how we use
them. For the Andean *campesino* culture, this marginalisation implies
a very important loss of forms of human languaging with the entities
of the *pacha*. For instance, the capacity to perceive the colour of the
wind indicating, for example, the proximity of rains, has been lost.
Because colour is the way in which the wind communicates what it
knows about the coming weather, this important information is no
longer available to campesinos.

Colour is the way in which
the wind communicates
what it knows about
the coming weather

The languages that express the cosmovision of the Andean peas-
ants are Quechua and Aymara. Both are strictly oral. In the case of
Quechua, Marcela Machaca's paper has referred to the difficulties
of translation and the many meanings of each word. One word can
mean one thing in a specific context, and in a different context it can
mean the opposite. It suffices to briefly consult a dictionary of the
Quechua language to realise the effort that Quechua-speaking teach-
ers and students must display to master reading and writing and, with
it and through it, the development of the capacity of abstraction to
transform the world into a repository of objects.

The programme for the training of accompanists had to be atten-
tive to the difference between cosmovisions. The course participants
were people who had been trained to believe that the professional
technician *knows*. They were trained in the belief that a professional,
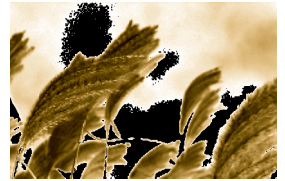
17   Abram, David, *The Spell of the Sensuous: Perception and language in a more-than-
      human world*, Pantheon, 1996, New York, pp.93-135.

because of knowledge in a certain discipline is in a position to teach others how to do things from the perspective of that discipline. The attitude that is 'natural' to the technical professional is, as a result, to place her/himself above the others and to dictate what should be done. It does not occur to them to listen, especially with attention and respect, to other non-professionals. Thus, an agronomist is prepared to dictate to the *campesinos* what must be done to make their *chacras* profitable. She/he does not remember that they have been nurturing plants for numerous generations and that they do not need instructions to live in sufficiency.

In order for the professional technician to become an accomplished accompanist in the cultural affirmation of the Andean communities she/he must be able to:

> listen to the wisdom of the grandparents, suspending all professional capacities and assumed cognitive authority in relation to those whom she/he accompanies (deprofessionalisation);

> unlearn and question what is taken for granted in order to reflect on it with those she/he accompanies (decolonisation).

It is clear that these skills are only pertinent for the professional technician, since the form in which community members acquire their skills has nothing to do with formal professional training, nor are they colonised as long as they do not take seriously the promises of modernisation that the professionals have made their own.

Josef Estermann has undertaken the characterisation of an 'Andean philosophy' based on his stay in a high Andean community in Cusco. His work is particularly valuable for the development of an epistemology adequate for accompanists.[18] In our opinion, however, he misses the centrality of daily life in the maintenance of a cosmovision. Nurturance and the *chacra* are conspicuously absent in his interpretation. However, his identification and elaboration of the principles of the Andean life-world (relationality, correspondence, complementarity and reciprocity) remain a valuable contribution from an intercultural point of view. Estermann asserts that the 'true foundation for Andean philosophy is the relationality of all, the network of links that is the vital force of all that exists'.[19] He also calls the 'principle of relational-

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18 Estermann, Josef, *Filosofía andina: estudio intercultural de la sabiduría autóctona andina,* Ediciones Abya Yala, Quito: 1998.

19 *Ibid.,* p.98.

ity', the 'holistic principle'. This principle asserts that 'everything is related in one way or another with everything else…the basic entity is not the substantial "entity" but the relation'.[20] This basic principle manifests itself in a number of 'secondary' or 'derived' principles, according to the type of relationality present. 'As a first "derived principle" we mention that of correspondence. This principle, says, in general terms, that the different aspects, regions, or fields of "reality" correspond to each other in a harmonious manner,'[21] With reference to complementarity, Estermann asserts that 'the principle of complementarity is the specification of the principles of correspondence and relationality. No "entity" nor action whatever exists "monadically", but in coexistence with its specific complement.'[22] The Western parallel is the principle of complementarity in quantum mechanics.

The principle of reciprocity is probably the most evident to Western observers of the Andean life-world. In Estermann's words:

> The principle of correspondence expresses itself at the pragmatic and ethical level as the 'principle of reciprocity': To every act corresponds, as a complementary contribution, a reciprocal act. This principle pertains not only to human interrelationships (between persons or groups) but also to all types of interaction, be it intra-human, between human and nature, or between humans and the deities.[23]

From Andean cultural affirmation to the Andean affirmation of cultural diversity

Above we have argued for the need for an epistemology for cultural affirmation. The arguments have, hopefully, made clear that different cosmovisions imply different ways of accessing knowledge and thus require different epistemologies. However, one important conclusion is that, of all external interventions, only accompaniment fills the requirement of a respectful intercultural relationship. All other interventions in the name of development are, to varying degrees, colonising. In the realm of knowledge, it is clear that when approaching people with a different cosmovision one's own knowledge must be put aside. The same is also true for the instinctive judgment that aris-

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20 *Ibid.,* p.114.

21   *Ibid.,* p.123.

22 *Ibid.,* p.126.

23 *Ibid.,* pp.131-132.

es when confronting a basic attitude to life different from one's own. This becomes apparent in the Western urban dwellers' experience when sharing the life-world of Andean communities. Their senses highlight the feeling of deprivation in sympathising (suffering together) with them, the feeling that 'these people are poor'. This results in an urge to help change their situation.

This latter point touches on an even more fundamental issue and has been illuminated by the Argentinean philosopher Rodolfo Kusch (1922-1979). He identified a basic attitude in the Andean life-world, associated with the Spanish verbs *estar* and *ser.* They both translate as 'to be' in English but *estar* in the sense of 'just being' and *ser* in the sense of 'essential being'. Kusch starts his reflections from an experience of an encounter with an Aymara peasant in the Bolivian Altiplano. In an intriguing chapter in his book *The Indigenous and Popular Thought in Latin America*,[24] Kusch tells of the crucial encounter that he and his students have with an Aymara elder. In a dry, and to them, hostile environment, the students' obvious solution is to appeal to the local branch of central government for a water pump. Kusch finds this attitude well-meaning but lacking in understanding of the elder's comprehension of the situation as one that must be dealt with in conversation with the deities and natural entities, i.e., in ritual. His reflection goes to the root of the different cosmovisions involved in this encounter, the difference between *ser* and *estar*: What attitude is proper to such circumstances? Kusch notes the 'inward-looking, participative' attitude of the Aymara elder – that is, the assumption of the circumstance as something that belongs to him and where appealing to outside help and thus creating dependence on unfamiliar forces is not, in his understanding, an appropriate way of dealing with the situation. This differs from the outward-looking, leading attitude of his students. Why is something that comes so naturally to each participant in the encounter lived in such radically different ways? Kusch offers a novel explanation based on the consideration of differing cosmovisions. He writes:

> In Sanskrit, as in Greek and Latin as well as in Spanish, this dissociation into two verbs ['to be'] exists, but disappears in the Anglo-Saxon and French languages, because these latter belong to a field that has assimilated *estar* [just being] into *ser* [essential being], or rather it might be more appropriate to say that they have eliminated *estar* because they are essentially dynamic cultures… They are cultures of *ser* [essential being], unadaptable to anything because

Argentinean philosopher Rodolfo Kusch (1922-1979)

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24 Kusch, Rodolfo, *Obras completas*, Editorial Fundación Ross, Rosario, 2000, Vol. 11, pp.274-286.

they create their own world… The central driving force of all Western philosophy is *ser*. It was taken first as a formal and logical element among the Greeks, and then as an 'aspiration…or 'ideal'… In Western ontology there is undoubtedly an obsession with the essence of things, which the Eastern world does not know.[25]

Although he did not develop a whole philosophy based on *estar*, there are many references in Kusch's work that allude to this attitude of 'just being' of the Andean peoples as a basic difference from the Western tradition which has been polarised between 'essential being' and 'becoming' since the Greek pre-Socratic philosophers.

Just being

A summary collected from the works of Kusch (2000) of the contrast between these two basic attitudes or ways of being in the world is presented in the following table:

	Western *essential being /becoming*	Andean *just being*
Basic question	Why?	How?
Reference	Essence	Circumstance / context
Bodily disposition	*Sedere*, to sit, as in a position of control	*Stare*, to stand, in an attentive attitude
Thought	Causal	Seminal, originative
Attitude towards the world	(Hyper/Pro) Active	Relaxed, receptive
Goal	To create	To establish, instate
Strategic attitude	Taking the lead	Participating
Driving force	Efficiency	Favour / disfavour
Primary resource	Intellect	Affectivity

'Being', in the sense of essential being, is linked with the identification of essences and their attributes. In conceptual terms, if something can be defined it can be manipulated. This is alien to Andean thought, as expressed in Santos Vilca's testimony about Pachamama (Mother Earth), seeds and women being the same person. The intellectual operation of

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25 *Ibid.*, p.111, my translation.

distinguishing one thing from another belongs to the realm of control and manipulation and is associated with causal thinking. Kusch identifies the attitude of distancing oneself with respect to the world with such kind of thinking. Immersion in the world, the loving relating with its entities, forgoes any pretension of domination and control.

> The distinction between causal thinking and another (seminal) kind of thought is linked with the similar polarity that exists in consciousness between intelligence and affectivity. In the field of traditional psychology a distinction is made between, on the one hand, a subject that *sees* the world, delimits it in detail to confront it with efficiency, and, on the other hand, a subject that *feels* the favor or disfavor of that same world. In the former the subject asks for the *why*. This *why* refers to a constellation of causes and explanations that are offered in a lucid world accepted as such with full consciousness. In the latter the subject asks for the *how*. The *how* makes reference to the modality, to the tint of aversion and emotional adhesion that things appear to bring with them.[26]

Favour or disfavour (in the world of deities and natural entities) as a criterion for human intervention relates, as Kusch notes, to ritual as conversation and as a means of harmonising with entities whose sympathy and empathy are sought rather than control over them.

The attitude of 'just being' observed from a dynamic cosmovision like the Western one, which values action over seeming passivity, may be mistaken for resignation and conformism. In the Andean cosmovision this seeming passivity could be active nurturance, which has periods of intense activity as in rituals, festivities and communal cultivation, as well as periods of patient attuning to the circumstances.

Bridges between cosmovisions

In our understanding, Kusch affirms the radical incommensurability of cosmovisions, at least where the Western cosmovision is involved. This leads to the question: is it possible to build bridges or *passerelles* (footbridges) between cosmovisions? Is a dialogue between cosmovisions possible? If yes, what would the preconditions for such a dialogue be? Before trying to answer these questions the issue of cultural relativism must first be addressed.

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26 *Ibid,* p.473.

Cultural relativism is a double bind. Just posing the question of bridging cosmovisions implies distancing oneself from this relativistic position. On this issue we agree with Rajni Kothari, who writes:

> It is not possible to wish away the West; the point is to expose the illusion perpetrated by it that the western scientific paradigm provides a universal and hence absolute referent and is the only basis for world unity. It follows that the search for an alternative paradigm has to be a search for a new basis of unity, not merely the assertion of a diversity of cultures and their corresponding scientific and technological traditions… The philosophical perspective that should guide such an endeavour should steer clear of both imperialist claims to universality and the normless striving for relativity: it should affirm both the principle of *autonomy* of each entity (human as well as social) to seek out its own path to self-realization and the principle of *integration* of all such entities in a common framework of interrelationships based on agreed values.[27]

The immediate implication of this proposal is that the stance implicit in cultural affirmation is necessary but insufficient for the dialogue of cosmovisions. A dialogue demands openness rather than a rational disposition towards defending an alternative view. It also requires conviction that dialogue is necessary. For us the answer to the question about the possibility of dialogue is affirmative. However, we also recognise the need for certain preconditions to be met. Moreover, we believe that what is sought in such a dialogue can be tried out in practical ways by accompanists involved in the accompaniment of communities engaged in cultural affirmation and that reflections based on these practices may have important implications for furthering the dialogue of cosmovisions. The example of the community of Quispillaccta in Ayacucho has already been offered, to show the crucial, though hidden, role that accompanists can play in brokering the dialogue between people with differing cosmovisions.

The preconditions for dialogue, as we understand them, are threefold. One is the need for respect and affection in the relationship. This means that it is not only a relation between equivalents but also that the participants hold the conviction that the conversation between cosmovisions will provide key insights for the healthy regeneration of all involved. The second condition is the affirmation of the cosmovisions involved, a renewed conviction that each of them has something to offer that will be of value to the other. Following on this is

A dialogue demands openness rather than a rational disposition towards defending an alternative view.

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27 Alvares, Claude, *Homo Faber: Technology and Culture in India, China and the West from 1500 to the Present Day,* Martinus Nijhoff Publishers, The Hague, 1980, pp.xii–xiii.

a third condition: that the participants commit themselves to reflect on what is taken for granted in their own cosmovision and to derive from these reflections the consequences that affect the healthy regeneration of life on the planet.

Rethinking the role of science

We have already mentioned that our experience in the GEF-funded *in situ* project provided us with a privileged testing ground verifying the inability of the practitioners of modern technical agriculture even to articulate the project's challenges – that is, to suggest ways of contributing to the traditional regeneration of seeds. While implementing the project we have faced the conflicts arising from the glorification of modern science and technology as the ultimate solution for all of humankind's problems. The immediate consequence of such glorification is the implicit denial of ways of living and understanding reality that are alternatives, different from one's own. It also forced us to reflect on the many ways in which the practice and management of science has been corporatised. This has meant the increasing abandonment of scientific endeavours that are not aimed at corporate profit. This shift is achieved through the adoption of corporate values, economic profit in this case. In the *in situ* project, for instance, the basic rationale of the project assumed that the motivation of the peasant communities for conserving agrobiodiversity was economic gain. Our accompaniment of the community of nurturers of agrobiodiversity during the project has revealed, to the contrary, that biodiversity is the result of a different mode of being-in-the-world, of affectionate attuning to the plants, animals and entities that populate their environment. In this context, biodiversity is valuable in itself.

How this corporatisation is achieved in the career of distinguished scientists is illustrated by Bruno Latour.[28] Increasingly scientific endeavours not meant for corporate profit get less space, while corporate techno-science spreads and becomes more powerful, less socially responsible and freer from peer recognition, peer review and peer pressure.

Even non-profit initiatives like the Millennium Ecosystem Assessment, a worldwide multidisciplinary effort to provide decision-makers with knowledge oriented to averting the ecological crisis, sees its recommendations compromised in spite of the redoubtable intentions and honesty of its members. Their conceptual framework adopts

28 Latour, Bruno, *Petite leçon de sociologie des sciences*, Éditions La Découverte, Paris, 1993, pp.100-129.

a uniting disciplinary ground provided by economics with its implicit universalistic values governing the relationships among disciplines. Thus, despite their cautious wording, their recommendations are decidedly monocultural, and in our opinion, counterproductive.

Upholding values based on economics can become especially counterproductive when applied to decisions on interventions for biodiversity conservation in the central Andes. Maps clearly show that the areas with the highest agrobiodiversity correspond to places with populations officially declared to be living in extreme poverty. This is not accidental since these peoples are the bearers of traditions that keep biodiversity for its own sake and not for economic reasons.

Respecting cultural diversity requires that science become one tradition equivalent to others to be nurtured by accompanists that travel between social spaces and have the ability to understand different ways of knowing, relating to and narrating the world. This must include familiarity with the mode of being-in-the-world which allows an affectionate attuning to plants, animals and other entities as well as the specific academic/scientific ways of understanding the world that are narrowly defined for and by each peer group. It must thus entail a capacity to find and to hold these different ways of understanding the world. This in turn entails a capacity to shift one's own focus of understanding, and acknowledge that very different ways of understanding the world may be simultaneously applicable, even when they are or seem to be mutually exclusive.

To attain a proper framework for this understanding we need a comprehensive definition of the scientific activity, and we may adopt Jared Diamond's broad one as 'the acquisition of reliable knowledge about the world'.[29] It should be noted that reliability in the case of narrow areas defined by a community of peers requires the exercise of trust, generosity and openness.

Also required for this understanding is the practitioner's motivation in science. Science seems to cater to a very primal need: transcendence through the exercise of the intellect, the intimation of infinity that can be deeply regenerative at the personal level. Kepler's exultation in his introduction to Book V of *Harmonice Mundi* is unforgettable:

29 Diamond, Jared, *Collapse: How Societies Choose to Fail or Succeed*, Penguin Books, New York, 2005, p.17.

The thing which dawned on me twenty-five years ago before I had yet discovered the five regular bodies between the heavenly orbits…which sixteen years ago I proclaimed as the ultimate aim of all research; which caused me to devote the best years of my life to astronomical studies, to join Tycho Brahe…I have now, after discharging my astronomical duties *ad satietatum*, at long last brought to light… Having perceived the first glimmer of dawn eighteen months ago, the light of day three months ago, but only a few days ago the plain sun of a most wonderful vision – nothing shall hold me back. Yes, I give myself up to holy raving. I mockingly defy all mortals with my open confession: I have robbed the golden vessels of the Egyptians to make out of them a tabernacle for my God, far from the frontiers of Egypt. If you forgive me, I shall rejoice. If you are angry, I shall bear it. Behold, I have cast the dice, and I am writing a book either for my contemporaries, or for posterity. It is all the same to me. It may wait a hundred years for a reader, since God has also waited six thousand years for a witness…[30]
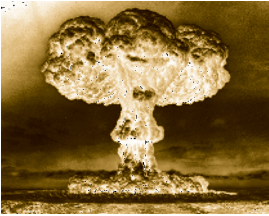
The mechanical conception of an ordered cosmos began to take shape with momentous consequences for humankind

Thus, the mechanical conception of an ordered cosmos began to take shape with momentous consequences for humankind. This is 'ecstatic communion', according to Michael Polanyi.[31] Is there a fundamental difference between this and the experience of Robert Oppenheimer watching the test explosion of the atomic bomb at Alamogordo, New Mexico, in 1945, reported in Robert Jungk's account?[32] According to Jungk, when the explosion went off Oppenheimer was reminded of a passage in the *Bhagavad Gita*:

If the radiance of a thousand suns
were to burst into the sky,
that would be like
the splendour of the Mighty One.

And as the mushroom cloud rose into the sky, Oppenheimer thought of another line from the same source:

I am become Death, the shatterer of worlds.

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30 Koestler, Arthur, *The Watershed: A Biography of Johannes Kepler*, Anchor Books, Garden City, NY, 1960, pp.219-20.

31 Polanyi, Michael, *Personal Knowledge: Towards a Post-Critical Philosophy*, Harper Torchbooks, New York, NY, 1964, p.7. Original edition: 1958.

32 Jungk, Robert, *Brighter than a Thousand Suns: A personal history of the atomic scientists*, Harmondsworth, Penguin Books, Middlessex, England, 1960, p.183. Original German: 1956.

Jungk comments:,'Sri Krishna, the Exalted One, lord of the fate of mortals, had uttered the phrase.'[33]

Horror and fascination are experienced at the same time in another momentous event for mankind. One is reminded of Rilke's first *Duino* elegy:[34]

> For beauty is nothing
> but the beginning of terror we can just barely endure,
> and we admire it so because it calmly disdains
> to destroy us…

Bruce Wilshire has made a very powerful case for ecstatic experience as satisfaction of primal needs that are not catered for in modern urban life. He also convincingly argues for the care that must be taken in dealing with it because it can be regenerative but addictive as well. So with science: it can become scientism, based on the belief 'that it alone can reliably formulate meaning and know – for example, know what's right to do, or what the lived quality of a situation is'.[35]

One characteristic of scientific knowledge that Diamond's definition does not highlight is that it aims at generality. This, in our opinion, is as important as reliability. Knowledge that can be generalised can guide the re-creation of successful action in different contexts, circumstances and scales. In contrast to local or traditional knowledge, science aims at generality and this is, in our opinion, its specific contribution.

Rethinking education

It was in the context of a programme called Children and Biodiversity (2002–7), containing an educational component, that the issue of the 'two kinds of knowledge' in the school posed the question of the dialogue of cosmovisions. Actually we had noticed since 2000 that traditional authorities in the communities had been unanimously identifying 'loss of respect' as the major obstacle for community well-being. During the execution of the *in situ* project as well, the school was identified as a major threat to the conservation of the diversity of native plants. The traditional authorities recognised loss of respect towards their deities (*Pachamama*, or mountain protectors), towards na-

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33 *Ibid.*

34 Rilke, Rainer Maria, *Duino Elegies*, transl. C. F. MacIntyre, University of California Press, Berkeley, 1961.

35 Wilshire, Bruce, *Wild Hunger: The Primal Roots of Modern Addiction*, Rowman & Littlefield Publishers, Lanham, MD, 1998, pp.40-41.

ture and among themselves. The signs were clear: 'Children no long-er greet their elders.' However, they did not request that the schools be closed and the teachers sent away. Instead, in conversation with parents during the year 2004, it was made clear what they demanded from the school. This was expressed as *Iskay Yachay* in Quechua and *Paya Yatiwi* in Aymara. They both translate as 'two kinds of knowl-edge' – their own and the school's. They were adamant that local knowledge should be included in the school curriculum. Fifty years had passed since these same communities had demanded that the ed-ucational system help transform their children and equip them with skills so they could migrate to the cities and to a life of progress. The feeling was: 'Let the life that I have end with me.' With the incep-tion of the development era some 50 years ago the project of the En-lightenment took hold. The character of the children was to be trans-formed and they were to be prepared to live in and for progress – that is, in a future against a present regarded as backward and inferior.

> Through their education…children learn to leave home, not to stay [at] home… The new social norm implies that the child's des-tiny is not to succeed the parents, but to outmode them; succession is substituted for supercession. Neither school nor university looks toward passing on an unimpaired cultural inheritance. Instead, they push and promote the professional career… The emphasis is on earning money in a provisional future that has nothing to do with place, commons, or community.[36]

The experience of the past decades has changed the perception of the communities. They realise that development has not fulfilled its promises. Now even young university graduates do not find jobs in the city. They return to their communities where they can neither apply what they have learned at the university nor practise what they rejected when they left their rural communities and migrated to the city. As a result the communities now demand that the school host their *saber*. This has been done. Today one third of the contents of the school curriculum is their *saber*. However, they also demand that the school continue to teach reading, writing and maths.

This is the natural way for them. Andean communities have nev-er rejected what has come to them, even in the form of pests such as the European invasion. They have nurtured the alien, adopting foreign crops and animals as their own. From this viewpoint, *Paya Yatiwi* as understood by the parents is not just a plea in favour of the

They return to their communities where they can neither apply what they have learned at the university nor practise what they rejected when they left their rural communities and migrated to the city

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36 Prakash, Madhu Suri and Gustavo Esteva, *Escaping Education: Living as Learning within Grassroots Cultures*, Peter Lang Publishing, New York, 1998, p.3.

coexistence of two kinds of knowledge; it is basically a demand for cultural diversity. This was made clear when don Rigoberto Ticona, from Juli, Puno, showed the contents of his *kumana*, the ritual bundle where he keeps his seeds, at the time of his presentation before a meeting with parents, teachers and accompanists in December 2005. The diversity of species of seeds (potato, quinoa, cañihua, oca, and so on) and varieties within each species was astounding. He said that *Paya Yatiwi* would help him nurture these seeds. His bundle contained hybrid potato seeds along with native ones. Neither rejection nor exclusion is meant. Hospitality is extended to all seeds – they are considered to be relatives.

One of the main blind spots of the formal educational system has been the assumption that rural communities are cognitive vacuums. On the contrary, the Children and Biodiversity School Project has found that there exists a full educational culture in rural communities. It is oriented towards a kind of training that allows everyone to be a full member of the community, able to exercise all 'duties and services' that constitute the community's traditional system of authorities. These responsibilities are assumed from the age of six or seven years. The great challenge for the present educational system is how to support the growth of this educational culture, how to respect it and build on it.

The great challenge for the present educational system is how to support the growth of this educational culture

The meaning of *Iskay Yachay* or *Paya Yatiwi* has gradually become clearer although we are far from having worked out all its practical implications. It includes the contribution of the school in the community recovering respect for one another, teaching, reading and writing by building on the children's orality, and helping the community teach the children the 'seven skills' that every community member must master to be able to 'pass life'.

A dialogue of cosmovisions?

Previously we had understood that meeting the challenge of a fruitful interaction between different cultural groups required building bridges between them. These bridges, we thought, were intellectual constructions. It is now clear to us, and hopefully also to readers, that reason and intellect alone will not achieve anything of promise. A rational approach will seek and use distinctions as a means of ensuring certainty while what is needed is seminal thinking, the propitiatory (conciliatory), nurturing letting-be that allows the new to become real. Perhaps there is an equivalent in modern systems thinking – the emergent property of a learning system. Chet Bowers has suggested

in a personal communication that Gregory Bateson's understanding of an ecology where everything is interacting and communicating might represent the basis for cross-cultural dialogue.[37]

However, for dialogue we also need a basis of unity, as Rajni Khotari asserts. We propose that it be constituted by the global concern for the mounting ecological crisis. This is a concern shared by most people. Even if the crisis cannot be averted it can be a source of unity. Proposals like Earth Justice or Earth Jurisprudence[38] call for a common quest, for a shift from an anthropocentric worldview like the modern Western one to one based on the laws of Nature to which human law must be subordinated. It seems important to us that such an initiative comes from the Western world and can receive wholehearted support in most cultures. Of course, there is a great diversity of understanding of Earth Justice in different cultural groups and the sharing of such diversity could form the basis for a rich exploration in intercultural relations.

In this context it is clear that all *saber* proceeds from, and is for, accompaniment. If intercultural relations are sought, every project that implies the interplay of two cosmovisions is a project that demands a relation of accompaniment. In that sense, every accompanist is also accompanied. Every nurturer is nurtured, and for that they must tune themselves in with the specific circumstances of nurturance.

What then does being an accompanist mean in the present global context, assuming this common global concern about the mounting ecological crisis? For us in the central Andes the accompanist is a 'transductor', an intellectual hinge, between cosmovisions. She/he has been educated for long years in a conception of life different from her original mode of living, and has, therefore, a lived experience of both. She/he has arrived through her professional experience to verify the impertinence of modes of living alien to the specific context of the Andes and has reached the conviction of the validity of the knowledge of her ancestors and the customs regenerated by generations as a basis for wellbeing. In this context it is her/his role to promote and facilitate the conversation between different cosmovisions.

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37 Bateson, Gregory, *Steps to an Ecology of Mind*, Ballantine Books, New York, 1972, pp.315-320.

38 Cullinan, Cormac, *Wild Law: A Manifesto for Earth Justice*, Green Books, Dartington, Totnes, Devon, 2000; Berry, Thomas, *The Great Work: Our Way into the Future*, Bell Tower, New York, 1999.

In the context of cultural affirmation we have been accompanying communities and humbly learning from them. This makes for a one-way flow of learning from the communities. To a large extent, this means that the accompanist's main role is to support the Andean communities in their affirmation as communities despite the modernising pressures for enclosing the commons, aggravated by globalisation (privatisation of land, water and biodiversity). In many cases, the accompanists have been adopted as a non-traditional authority that prompts the community to remember the ways that used to bring wellbeing.

However, the communities' demand for radical cultural diversity indicates their readiness to take up the challenge of directly conversing with other cultures. We still find a role for the accompanists in accompanying this conversation, making such a conversation possible. For this to happen, one first has to believe it is possible. We are in the initial stages of finding this conviction, but we also acknowledge that there are a number of preconditions for such a dialogue. An important one is the willingness of all to participate, and this condition is not always fulfilled. In a country like Peru, subject to secular colonisation, the government is not ready to listen to its so-called 'poorest' communities, for instance.

Nor are international organisations ready to recognise the communities' capacity for good governance. This was made clear in the formulation of the *in situ* project. Project activities concerned with aspects such as international legislation, policies and markets for promoting biodiversity conservation were contracted to outside consultants. In our opinion, the results in this area at the end of the project have been very poor, revealing that no techno-scientific expertise has been developed on these issues. In our view, if the communities have the know-how of biodiversity conservation, they also have the 'know-what' regarding policies that strengthen such conservation. Here again, it is apparent that to initiate the process the accompanists might play a crucial role in making possible direct dialogue between communities that conserve and all those others interested in the conservation of biodiversity.

In both projects mentioned above, the exchange of lived experience has been the main modality of the affirmation of cultural diversity and, with it, biological diversity. The discussion makes clear that the relationship between cosmovisions does not involve intellect alone. Senses and emotions are engaged: cosmovisions are embodied in given *pachas* and not only in the human communities. This is the reason for choosing, as the initial modality of conversation between cosmo-

visions, exchanges of visits between human communities, to take part in each other's rituals. In the central Andes, during these rituals, human communities are accompanied by seeds, animals and offerings, through which all entities of the visitors' *pacha* are present. Rituals are instances of conversation among different *pachas* facilitated by the host communities. The challenge now is to extend this exchange beyond the confines of the central Andes.

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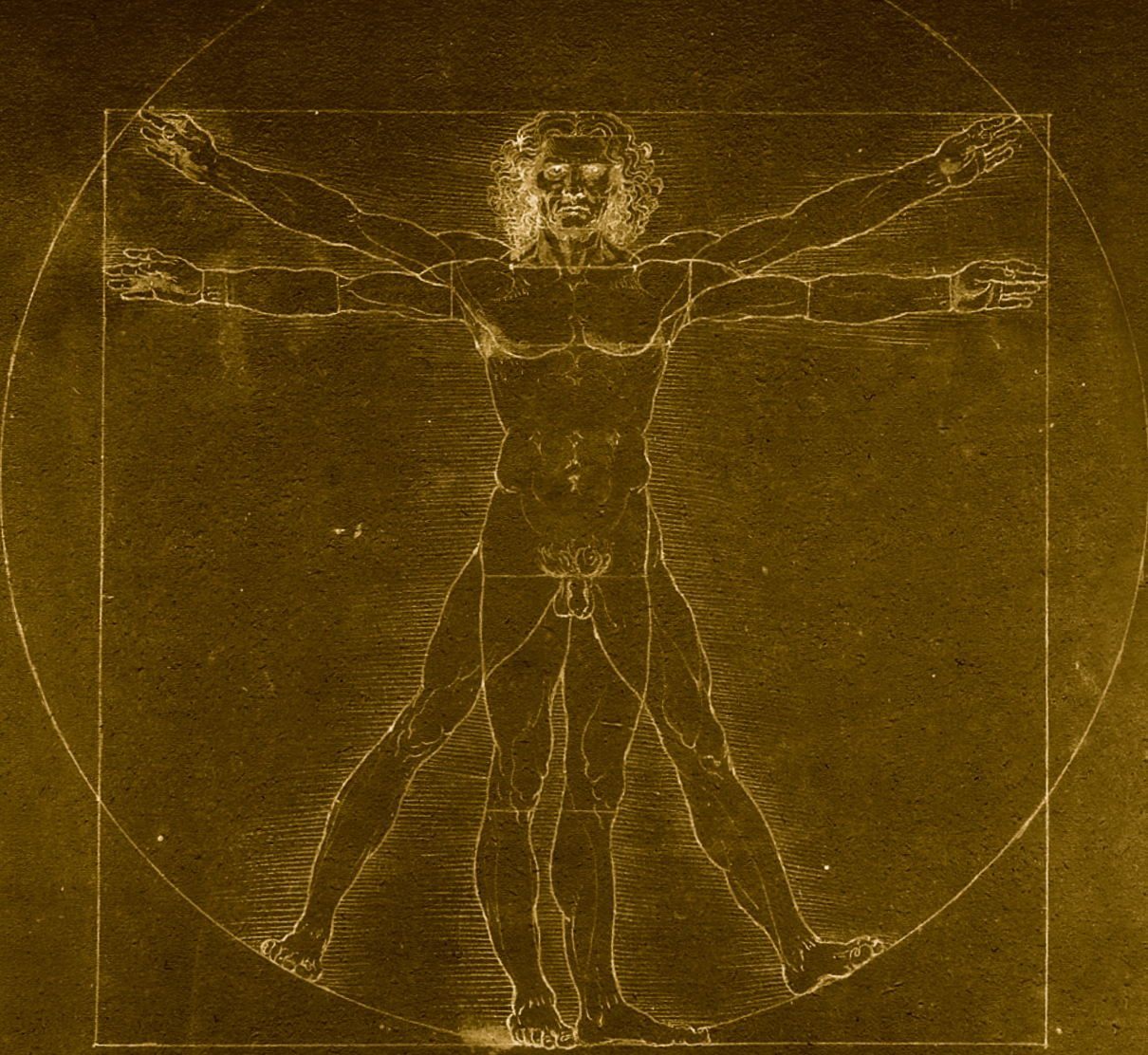
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What next for the human species? Human performance enhancement, ableism and pluralism

Gregor Wolbring

In thinking about 'What Next?', we also need to think about the future in terms of the direction of our own species and our relationship with other species and the environment – in what significant and fundamental ways may humans change over the next few years and decades, and what implications will this have for our societies, for equity, for our understanding of ourselves and, not least, for human diversity and pluralism? As I will show in this article, society as a whole has much to learn from the experiences of the disabled people's rights movement and their struggles for recognition of the fact that human diversity has a value. In a rapidly approaching future where everyone could be regarded as in need of being fixed and enhanced, everyone not enhanced will essentially be seen as impaired. This would mean a scenario where 'non-enhanced' persons – the vast majority who regard themselves as 'normal' today – are likely to encounter 'disableism' similar to what disabled people have always experienced. Disableism – the discriminatory, oppressive, or abusive behaviour arising from the belief that those who are not performing as expected are inferior to those performing according to the norm – will likely become one of the most striking human rights challenges as we look ahead. Our task as society is to counter these trends and ensure that pluralism, also when it comes to human diversity, is appreciated and accepted as a value.

'Human performance enhancement' – where are sciences and technologies taking us?

Few people are aware of current trends in human performance enhancement and what is happening in this particular field of science and technology. Through the convergence of a number of science and technology fields such as nanotechnology, biotechnology, information technology, cognitive sciences, synthetic biology, chemistry, material sciences and physics, science and technology products and processes are rapidly evolving to unimagined and often science-fiction-like realms. One development at the core of these dramatic

developments of converging technologies is the very notion of 'en-
hancement'.

The concept of 'NBIC' – or the convergence of nanotechnology
(Nano), biotechnology (Bio), informatics (Info) and cognitive and
neurosciences (Cogno) – was first formulated in connection with a
US National Science Foundation (NSF) conference in 2001. This
conference, entitled 'Converging technologies for improving human
performance' outlined future prospects for expansion of human cog-
nition and communication; human health and life extension; new
tools for national security and counter-terrorism; and whole new
possibilities for learning and education.[1] Since the 2001 conference,
several follow-up conferences and publications have further elabo-
rated these ideas to the point where '[T]he question raised at the first
conference – "if visionary activities related to NBIC would have im-
pact?" – has been replaced in the following meetings with "how and
when?"', as one of the leading figures at NSF, Mihail Roco, stated
in the introduction to the 2005 publication, *Managing Nano-Bio-Info-
Cogno Innovations: Converging Technologies in Society*.[2]

Market pressures are leading
to the rapid development
of human enhancement
technologies

1   Roco, Mihail C. and William Sims Bainbridge (eds), Converging Technologies for
     Improving Human Performance: Nanotechnology, biotechnology, information
     technology and cognitive science, National Science Foundation, Arlington, 2002.
     http://www.wtec.org/ConvergingTechnologies

2   Bainbridge, William Sims and Mihail C. Roco, Managing Nano-Bio-Info-Cogno
     Innovations: Converging Technologies in Society, Springer, Dordrecht, 2005.
     http://www.wtec.org/ConvergingTechnologies/3/NBIC3_report.pdf

What is nanotechnology – according to the International Standards Organization (ISO) ?

Nanotechnology is the collective term for a range of technologies, techniques and processes involving the manipulation of matter at the molecular (groups of atoms) level, systems that typically posses at least one physical dimension in the range 1-100 nanometres. Such systems may possess entirely new physical and chemical characteristics, resulting in properties that are neither well described by those of a single molecule of the substance, nor by those of the bulk material. This often results in new, exciting and different characteristics that can generate a vast array of novel products.

Nanotechnology is expected to evolve through four overlapping stages of industrial prototyping and commercialization. The first stage, already begun, involves the development of passive nanostructures: materials with fixed structures and functions often used as parts of a product. Products containing nanomaterials already in the marketplace mainly involve manufactured nanoparticles (metal oxides, quantum dots, carbon nanotubes, etc) serving as raw materials, ingredients or additives in existing products. The second stage, also already begun, focuses on active nanostructures that change their size, shape, conductivity or other properties during use. For example, drug-delivery particles that release therapeutic molecules in the body when they reach their targeted diseased tissues. The third stage (projected to begin around 2010) will see the further development of expertise with systems of nanostructures and the directing of large numbers of intricate components to specified ends (for example, the guided self-assembly of nanoelectronic components into three-dimensional circuits and whole devices). In the fourth stage (projected to begin around 2015-2020), nanotechnology will expand to include molecular nanosystems—heterogeneous networks in which molecules and supramolecular structures serve as distinct devices. Computers and robots could be reduced to extraordinarily small sizes.[3]

Many different sciences and technologies are expected to converge at the nano-scale and are set to increase our abilities to 'enhance' our bodies and brains in terms of structure, function and capabilities. They will do this beyond the boundaries of what we regard as 'species-typical', as normal for humans.[4]

Consider the following examples of what is already happening in the field of human enhancement:

- In February 2007 researchers at the University of Texas Medical Branch at Galveston (UTMB) and the University of Mich-

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3   International Standards Organization, ISO Business plan ISO/TC 229 Nanotechnologies, 2008.

4   Wolbring, G., 'Is there an end to out-able? Is there an end to the rat race for abilities?', *Media and Culture,* Vol. 11, No. 3, 2008.
    http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/57

igan announced that the world's first direct electrical link be-
tween nerve cells and photovoltaic nanoparticle films had been
achieved. This is seen as one way nano research can help in the
development of artificial retinas.[5] Similar examples abound.
As shown in Table 1 (see pp.146-147), new sciences and tech-
nologies with enhancement potential are envisioned across a
broad range of areas including medical intervention.[6]

Perhaps even more importantly, we are closer than many may
think to human performance enhancements becoming part of
the mainstream discourse and receiving public acceptance, as
the following two examples indicate.

• Recent prosthetics advances led the world governing body
for track and field (the International Association for Athletics
Federation, IAAF) to rule on 14 January 2008 – invoking its
rule 144.2 which deals with technical aids – 'that double-am-
putee sprinter Oscar Pistorius is ineligible to compete in the
Beijing Olympics because his prosthetic racing legs give him
a clear competitive advantage'.[7] This was the first time that a
'therapeutic' device that is linked to the body – the legs – used
by Paralympic athletes has been labelled a form of techno dop-
ing. This decision was later reversed by the Court of Arbitra-
tion in Sports.[8]

• In an on-line survey in early 2008 Nature magazine found that
20 per cent of the 1,427 readers responding had taken pharma-
ceuticals in order to enhance their capabilities by improving

Double-amputee sprinter
Oscar Pistorius

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5 'Nanoparticle films may lead to artificial retina', *AZoJono – Journal of Nantechnology Online*, 2007. http://www.azonano.com/News.asp?NewsID=3810

6 More than 50 references to applications and products envisioned for disabled people that have clear enhancement aspects are found in two of my publications:

Wolbring, G., *The triangle of enhancement medicine, disabled people, and the concept of health: a new challenge for HTA, health research, and health policy*, HTA Initiative No. 23, Alberta Heritage Foundation for Medical Research, 2005. http://www.ihe.ca/documents/HTA-FR23.pdf

Wolbring, G., 'Scoping paper on Nanotechnology and disabled people', Center for Nanotechnology in Society, Arizona State University, 2006. http://cns.asu.edu/cns-library/documents/wolbring-scoping%20CD%20final%20edit.doc

7 Casert, Raf, 'IAAF rules sprinter Pistorius ineligible', Associated Press, 2008. http://news.yahoo.com/s/ap/20080114/ap_on_sp_ol/oly_run_iaaf_pistorius

8 Wolbring, G., 'One World, One Olympics: Governing Human Ability, Ableism and Disablism in an Era of Bodily Enhancements'. in Miah, A., ed., *Human Futures: Art in the Age of Uncertainty*, Liverpool University Press. Liverpool, 2008. http://humanfutures.wordpress.com/

their concentration, focus and memory, and reduce their need for sleep. The survey focused on three kinds of drugs: the anti-sleep drug Provigil normally prescribed for narcolepsy and sleep disorders; beta blockers, which are used for cardiac problems but can also reduce anxiety; and Ritalin, normally prescribed for treating attention deficit disorder (ADD) and attention deficit hyperactivity disorder (ADHD) to increase focus and concentration. The survey also found that 79 per cent felt that healthy people should be allowed to take cognitive enhancers and one-third of respondents said they would feel pressure to give cognition-enhancing drugs to their children if other children at school were taking them.[9]

Many different forms of enhancement are proposed, with many different purposes. Each form and purpose of enhancement comes with its own sales pitches, social consequences, problems and implications.

However, the vast majority of the global population is unaware of what advances are being made towards human performance enhancement – and what are the worldviews and visions of those driving this development.[10] There is a clear need to map and keep track of the enhancement area, while also considering what critical questions need to be asked and what actions taken.

Table 1 (overleaf): A selection of technologies with human enhancement performance (HyPE) applications or potential

This table presents a selection of technologies that are currently available or are under development. Some technologies are being developed with enhancement in mind; in the case of others, the enhancement-potential was will be exploited after development. The list is not comprehensive and whole categories of enhancements have been omitted (e.g., cosmetic surgery, tissue engineering).[11]

9   *Nature*, No. 452, 2008, pp.674-675.

10   Wolbring, G., 'Why NBIC? Why Human Performance Enhancement?, *Innovation; The European Journal of Social Science Research*, Vol. 21, No. 1, 2008, pp.25-40.

11   Table from: ETC Group, Nanotech Rx – Medical applications of Nano-scale technologies: What Impact on Marginalized communities? 2006. www.etcgroup.org/upload/publication/593/01/etc06nanotechrx.pdf See this publication for further sources and references to data presented in the table.

Table 1: A selection of technologies with human enhancement performance (HyPE) applications or potential

PRODUCT	COMPANY	ON THE MARKET?	INITIAL USAGE	OTHER USAGE
ORAL/TOPICAL MEDICATIONS, INCLUDING COGNITION ENHANCERS				
Beta-adrenergic blocking agents (beta-blockers)	Various companies	Yes	Congestive cardiac failure	Anxiety reduction, e.g., taken by orchestral musicians pre-performance
Aurorix (active ingredient: moclobemide)	F. Hoffman-La Roche	Yes	Antidepressant	Social phobias
Selective Serotonin Re-uptake Inhibitors (SSRIs), e.g., Celexa, Desryl, Effexor, Luvox, Paxil, Prozac, Serzone, Zoloft, etc.)	Various companies	Yes	Antidepressant	Anxiety disorders (e.g., Generalized Anxiety Disorder, Panic Disorder, Social Phobias (e.g., shyness), Obsessive-Compulsive Disorder, Post-Traumatic Stress Disorder
Rogaine (active ingredient: minoxidil)	Pfizer	Yes	Control high blood pressure	Promote hair growth
Viagra (active ingredient: sildenafil)	Pfizer	Yes	Treat erectile dysfunction, impotence	Sexual performance enhancement
HT-0712 (a phosphodiesterase-4 inhibitor)	Helicon Therapeutics, Inc. (US), Inflazyme Pharmaceuticals (Canada)	Phase IIa clinical trial	Treat Alzheimer's disease, Age Associated Memory Impairment	Expected to be used in various contexts that require mental alertness
Alertec (Canada), Provigil (US) (active ingredient: modafinil)	Cephalon	Yes	Treat Narcolepsy	Treating Apnea/hypopnea syndrome (OSAHS), 'shift work sleep disorder' (SWSD), depression, Multiple Sclerosis, Alzheimer's; allowing soldiers to go without sleep
Aricept (active ingredient: donepezil HCl)	Pfizer, Eisai Co., Ltd	Yes	Treat Alzheimer's	Experimentally, used by airplane pilots to improve recall of complex air traffic control commands
Various cognitive enhancers	Various companies	>40 in clinical development	Treat Mild Cognitive Impairments (MCIs), Alzheimer's, Age Associated Memory Impairment	Expected to be used in various contexts that require mental alertness
SPI-1005	Sound Pharmaceuticals (US)	Phase I clinical trial	Prevent and treat noise-induced hearing loss	
'INVASIVE' BRAIN-MACHINE INTERFACES				
Braingate Neural Interface System	Cyberkinetics Neurotechnology Systems Inc. (USA)	Pilot clinical trial	Sensor implanted on the motor cortex coupled with device that measures and interprets signals from the brain; allows a person to control a computer with thought in order to initiate a range of activities	
'NON-INVASIVE' BRAIN-MACHINE INTERFACE				
MAIA – Mental Augmentation through Determination of Intented Action	IDIAP (Switzerland), Katholieke Uni Leuven (Belgium), Uni Hospital of Geneva, Fondazione Santa Lucia-Rome, Helsinki University of Technology	In development	Using thought (EEG brain signals) to control a wheelchair in an indoor environment; control a robot arm; handle emergency situations (e.g., braking a vehicle or retracting the robot arm)	
Virtual Helmet	University College London	In development, 2011-2016	Brain waves (EEG signals) translated into actions, allowing severely disabled people to control wheelchairs, computers and artificial limbs through thought	
Mental Typewriter, Berlin Brain-Computer Interface (BBCI)	Fraunhofer Institute and Charité Campus Benjamin Franklin (Berlin)	Prototype	EEG signals are amplified and transmitted to the computer in order to choose letters (through moving a computer's cursor) by thought	

PRODUCT	COMPANY	ON THE MARKET?	INITIAL USAGE	OTHER USAGE
Galvanic vestibular stimulation	Nippon Telegraph & Telephone Corp. (Japan)	In development / prototype	Affecting a person's sense of balance by applying low voltage electric current to the ears through a special headset; for entertainment or as aid to those with balance problems	Warfare: Defense contractor (Invocon, TX, US) is exploring whether electromagnetic pulses could be fired into people's ears to subdue them
Cortically coupled computer vision system, known as C3 Vision	Columbia University, with funding from Defense Advanced Research Projects Agency (US)	In development / prototype	While EEG cap wearers watch streaming images or video footage, a computer tags images that elicit a brain signal and ranks them in order of the strength of the signal. Afterwards, only the information that was tagged is reviewed; intended for monitoring and intelligence gathering	
BRAIN–BRAIN INTERFACE				
Electrodes implanted in arms, linked by radio signals to a computer, connect nervous systems of Kevin and Irena Warwick	University of Reading (UK)		Early stage of computer-linked 'global brain'	
BIONIC BODY PARTS				
Bionic Ear, including software upgrades	Various companies, including Advanced Bionics, Cochlear, Inc. (Australia), MED-EL (UK), Laboratoires MXM (France)	Yes	Restore hearing to those with severe to profound hearing loss	In the future, bionic body parts may be used by those now called 'disabled' and those considered 'healthy' today to provide above-the-norm abilities
Bionic Leg	Various companies, including Otto Bock HealthCare (Germany), Victhom Human Bionics (Canada)	Yes	Replace legs of amputees or those born without legs and feet	
Bionic arm	US DARPA's Revolutionizing Prosthetics Program	Clinical testing planned for 2009	Replace arms of amputees	
Bionic eye (artificial retinas, retinal prostheses)	Various companies and universities, including Second Sight Medical Products (US), VisionCare Ophthalmic Technologies (US), IIP-Technologies GmbH (Germany), Sumipro (Netherlands); Univ. of Texas (US) attempting to replace light-sensing nerves with a combination of nanoparticles and carbon nanotubes	In development; some in limited clinical testing, some on market by 2008;	Restore vision	
Bionic knee	E.g., 'Rheo Knee' – Ossur (Iceland)	Yes	Replace damaged knees	
Bionic hand, 'Cyberhand'	European university consortium	In development, available late 2007	Replace damaged/missing hands	
Reconstructive brain surgery, using nano-scale fibers to connect gaps in brain caused by damage	MIT (US), Hong Kong University, and Fourth Military Medical University in China	In development; human trials ~2009	Restore lost abilities to stroke victims and others	
Artificial bone from ceramic composites	Materials Science Division at Lawrence Berkeley National Laboratory (US)	In development	Improve bone grafts for hip and knee replacements	

The enhancement discourse of today

The increasing appearances and readiness for enhancement products are an indication that the overall discourse around both health and the views of ourselves as humans are changing. What is happening?

Models and causes of health

One of the main arguments in the enhancement debate is that you can and should make a distinction between therapy and enhancement.[12] However, this might not be as easy as it sounds and it may even be impossible. Many therapies have enhancement aspects. Many enhancements can be classified as therapies and many therapeutic interventions can and are used later on for non-therapeutic purposes. The line-drawing also depends on the very meaning of health and disease, concepts that are highly contested. More and more variations of human body structure and functioning are labelled deviations and diseases. The meaning of concepts such as health, disease, disability, impairment, wellbeing and even medicine are thus of major importance in the enhancement discourse.[13]

Many therapies have enhancement aspects

So what is health? The World Health Organization (WHO) defined in 1946 health to be 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.[14] This definition – a social model of health – combines *medical* health and *social* health under the term health. This means that a person does not have to have a body that functions below the 'norm' to suffer from ill-health. For example, a woman who is a victim of sex discrimination at work may have a body free of physical illness but she would still not be healthy.

Increasingly, however, the policy world is moving away from the WHO definition of health and is treating wellbeing less and less as a determinant of health. Policy-makers are interpreting the term health in a much narrower way to mean 'medical health' or 'medical illness', thus embracing a *medical model of health*. 'Social health' and 'wellbeing' are not covered under this definition.

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12   Wolbring, G, *The triangle of enhancement medicine, disabled people, and the concept of health, op. cit*

13   For a glossary of some of the key terms I use, see: 'Wolbring, G., 'Glossary for the 21st Century', International Center for Bioethics, Culture and Disability, 2007. http://www.bioethicsanddisability.org/glossary.htm

14   World Health Organization, WHO definition of health, Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946. http://www.who.int/about/definition/en/

The original WHO social model of health does not cover just social causes of medical health, but also the social wellbeing – the 'social health' – of a person who is not medically ill. One can be in bad social health without having to be in bad medical health. Under the social model, disabled people are not disabled by their impairment but by society's inability to adapt to them. For example if one has no legs one does not necessarily have bad medical health or an illness. It is just that the body is different. But one might be in bad social health as one has to encounter prejudice and other negative treatment by others. Or one is body-wise medically healthy but living in a situation where one is oppressed, therefore being in bad social health. In these cases it is society and the social context that need to change rather than the unhealthy person. This understanding of health differs sharply from the current enhancement discourse.

The transhumanisation of health

Although the discourse around health models so far is mostly confined to the social and medical models, a third kind is now emerging and gaining ground.[15] Within the transhumanised model of health, health is no longer characterised as an endpoint, where someone is healthy if their biological system functions within the normal species-typical boundaries. No matter how conventionally 'medically healthy' a person is, he/she is seen as limited and defective and in need of constant improvement made possible by new technologies appearing on the horizon. Think of it as something like the constant software upgrades we do on our computers. Health, under this model, is the concept of having obtained maximum enhancement of one's abilities, functioning and body structure.

Under this model, technologies that add new abilities to the human body are seen as the remedy for ill-health. Enhancement medicine is the new field providing this remedy through surgery, pharmaceuticals, implants and other means.

This transhumanised model of health is gaining ground, as technological development is making what before only appeared as distant possibilities now much closer at hand. Philosophically, however, transhumanism has existed for quite a while. The World Transhumanism Association (now relabelled 'Humanity+') was founded in 1998, but builds on ideas formulated decades and even centuries ago.

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15 Wolbring, G., 'Three challenges to the Ottawa spirit of health promotion, trends in global health, and disabled people', *Canadian Journal of Public Health*, Sept/Oct, 2006; Wolbring, G, *The triangle of enhancement medicine, disabled people, and the concept of health, op. cit.*

What is transhumanism
– according to the transhumanists themselves?

The Humanity+ website states:

Humanity+ (the World Transhumanist Association) is an international nonprofit membership organization which advocates the ethical use of technology to expand human capacities. We support the development of and access to new technologies that enable everyone to enjoy better minds, better bodies and better lives. In other words, we want people to be better than well.

Through the accelerating pace of technological development and scientific understanding, we are entering a whole new stage in the history of the human species. In the relatively near future, we may face the prospect of real artificial intelligence. New kinds of cognitive tools will be built that combine artificial intelligence with interface technology. Molecular nanotechnology has the potential to manufacture abundant resources for everybody and to give us control over the biochemical processes in our bodies, enabling us to eliminate disease and unwanted aging. Technologies such as brain–computer interfaces and neuropharmacology could amplify human intelligence, increase emotional well-being, improve our capacity for steady commitment to life projects or a loved one, and even multiply the range and richness of possible emotions. On the dark side of the spectrum, transhumanists recognize that some of these coming technologies could potentially cause great harm to human life; even the survival of our species could be at risk. Seeking to understand the dangers and working to prevent disasters is an essential part of the transhumanist agenda.[17]

Ableism

Various forms of 'ableism' are another driving force in the present discourses on enhancement and transhumanisation. I define ableism as

> ...a set of beliefs, processes and practices that produce based on one's abilities a particular kind of understanding of oneself, one's body and one's relationship with others of one's species, other species and one's environment and includes one being judged by others. Ableism exhibits a favouritism for certain abilities that are projected as essential while at the same time labelling real or perceived deviations from – or lack of these essential abilities – as a diminished state of being.[18]

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16 http://humanityplus.org/learn/about-us

17 http://www.transhumanism.org/resources/FAQv21.pdf

18 Wolbring, G., 'Glossary for the 21st Century', International Center for Bioethics, Culture and Disability webpage, 2007. http://www.bioethicsanddisability.org/glossary.htm

  For more elaborate bibliography and various aspects of ableism, see, for example, Ableism Ethics and Governance blog: http://ableism.wordpress.com;

'Ableism' often leads to 'disableism',[19] the discriminatory, oppressive, or abusive behaviour arising from the belief that people who do not have 'essential' abilities are inferior to others. Obviously 'disableism' contrasts sharply with the equity-based 1946 WHO definition of health and the Universal Declaration of Human Rights core messages about everybody's equal value.

The increasing acceptance of the transhumanisation of health must be understood not only in terms of technological developments and the new possibilities this opens up. It is also closely linked to a landscape that cherishes competition on various levels, where certain abilities are seen as essential for obtaining the 'competitive edge'. For example, the 2002 NBIC report uses the term 'productivity' over 60 times, the term 'efficiency' 54 times and the term 'competitiveness' 29 times.[20] An American Association for the Advancement of Science (AAAS) publication on enhancement concludes that a number of market pressures such as global competitiveness, brain drain/depopulation economics, national security concerns and quality of life/consumer lifestyle demands are leading to the rapid development of human enhancement technologies.[21]

The increasing acceptance of the transhumanisation of health is also closely linked to a landscape that cherishes competition on various levels

The desire for certain, often commercially valuable, abilities is undoubtedly one factor that drives the direction and vision of science and technology, which in turn both reinforces and creates new desires. The increasing capacity of science and technology to modify the appearance and functioning of biological structures, including the human body, thus enables a new form of ableism. This transhumanised form of ableism is a set of beliefs, processes and practices that cherishes functioning beyond the traditional confines of the human species.

19 Miller, P., S. Parker. and S. Gillinson, S., 'Disablism: How to tackle the last prejudice', DEMOS, 2004. http://www.demos.co.uk/files/disablism.pdf

20 Wolbring, G., 'Why NBIC? Why Human Performance Enhancement?', *Innovation; The European Journal of Social Science Research*, Vol. 21, No. 1, 2008, pp.25-40.

21 Williams, Enita A., 'Good, Better, Best: The Human Quest for Enhancement', Summary Report of an Invitational Workshop Convened by the Scientific Freedom, Responsibility and Law Program, American Association for the Advancement of Science, 1-2 June 2006. http://www.aaas.org/spp/sfrl/projects/human_enhancement/pdfs/HESummaryReport.pdf (see also http://www.aaas.org/spp/sfrl/projects/human_enhancement/pdfs/HEandMeans_of_AchievingIt.pdf)

What Next? Some consequences of enhancement and needed responses

Human enhancement technologies cannot be prevented from hitting the mainstream by the development of regulations alone. Obviously, the pressures and attraction in favour of enhancement relate to deep-seated notions of ourselves, and are fuelled by such factors as competitiveness, the fear of losing out and ideas of the possibility of, and even the right to, individual self-fulfilment. Ultimately, a change in people's and society's priorities – away from cherishing competitiveness and individualism, to valuing community and diversity – is needed. However, a prerequisite for any social or individual behaviour change that might lead to a decrease in demand for enhancement products is first to understand what is happening, to show how it is linked to people's behaviours, and to outline various likely consequences and challenges. Here are a few of the challenges I foresee.

Ability divides and the techno-poor impaired

Enhancement technologies will very likely generate new ability divides. This would follow the pattern of the divides that developed after the introduction of many other technologies. As we seem incapable of narrowing most of the other divides (remember the vast majority of web pages that are still not accessible to blind people) and a large part of the world's population still do not have the ability to access clean water and electricity it is doubtful that we will be able – under current policies – to close new ability divides despite transhumanists and others stating that wealth will eventually trickle down.[22] Furthermore, the introduction of every new technology has led to a new group of marginalised people and to new inequalities. As much as human enhancement technology is set to become an enabling technology for the few, it will become a disabling technology for the many.[23]

'techno-poor impaired and disabled'

If we continue on the present trajectory of rapidly expanding application and commercialisation of enhancement technologies, we will certainly also see the appearance of a new underclass of people – the 'unenhanced', or to use another concept of mine, the 'techno-poor impaired and disabled' people, people who are labelled 'impaired' and who encounter disableism because they do not have the enhanced

22 World Transhumanist Association, 'The Transhumanist FAQ – A General Introduction', Version 2.1, 2003. http://www.transhumanism.org/resources/FAQv21.pdf

23 Wolbring, G. 'The unenhanced underclass', in Miller, P. and Wilsdon, J., eds, *Better Humans? The politics of human enhancement and life extension,* Demos Institute, 2006. http://www.demos.co.uk/projects/currentprojects/betterhumans/

abilities. A transhumanisation of ability divides can also be expected. Indeed, people and groups who promote human enhancement use the existence of other societally accepted divides to justify why an increasing divide stemming from enhancement should also be accepted. As the World Transhumanist Association argues in response to the risk of an increasing ability divide: 'Rich parents send their kids to better schools and provide them with resources such as personal connections and information technology that may not be available to the less privileged. Such advantages lead to greater earnings later in life and serve to increase social inequalities.'[24] I would argue strongly against this line of argument. Existing inequalities cannot be made an excuse for unleashing a technology and commercialisation trend that is likely to further exacerbate problems. It should be the other way round: before considering whether the technology is at all acceptable, careful assessments need to be made of the likely societal and equity and equality consequences. The fundamental and wide-ranging consequences of enhancement for all of society require thorough public debate and the taking of precautions. We need to ensure that no already privileged groups can gain positional advantages from enhancements and force their desires and self-perception onto others such as their children or children-to-be or society as a whole. And we need seriously to think about the consequences of distributive injustice and the impact of it on social cohesion and global stability.

Responsibility

Human performance enhancement will require changes to the concept of responsibility. The transhumanists consider it to be a parental responsibility to use genetic screening and therapeutic enhancements to ensure as 'healthy' a child as possible.[25] Under such a model, would it be child abuse if parents refused to give their children cochlear implants, if they felt there was nothing wrong with their child using sign language, lip reading or other alternative modes of communication? Would it be child abuse to fail to provide a 'normal' child early in life with a brain–machine interface? We need urgently to understand the possible scenarios and trajectories of the future and their implications. Are we ready for a society where we have full freedom – and thereby responsibility –to choose and design both our own and our children's abilities and traits? What are areas that should be left untouched and

24 World Transhumanist Association, 'The Transhumanist FAQ 3. Society and Politics: Will new technologies only benefit the rich and powerful?' Version 3.1, 2008. http://humanityplus.org/learn/philosophy/faq#answer_31

25 World Transhumanist Association 'The Transhumanist FAQ – A General Introduction' Version 2.1, 2003. http://www.transhumanism.org/resources/FAQv21.pdf

how do we, as a species, collectively determine the borders that we should not cross?

Transhumanisation of personhood

All UN-based documents use the term 'person' as a descriptive term to highlight certain rights. However, this term is not set in stone. Throughout history, many humans have not been seen as persons and in some places some are still seen as non-persons today. What are the criteria for personhood? May we end up in a situation where some people who are perceived as persons today become non-persons? Is there a limit to how much technological parts and modifications a person can have and still be considered a full human? Will one only be seen as a person if one has received certain enhancements? Will personhood depend on certain levels of cognition or other abilities? In this regard it is important to note that the Disabled People's Association (DPI) bioethics resolutions from the 6th World Assembly in October 2002 in Sapporo, Japan, states 'We defend and demand a concept of "person" that is not linked to a certain set of abilities'.[26] This demand is of particular importance as the transhumanisation of ability divides is a likely future scenario. A transhumanised version of personhood which links personhood to certain abilities beyond the species-typical might become part of the personhood debate of the future which might lead to various very problematic consequences.

Body politics, performance, disablement and pluralism

These developments will increase the number of people perceived as 'impaired', because as enhancement technologies are developed, the definition of who is 'impaired' will change. The transhumanist model of health sees every human body as defective and in need of improvement, such that every unenhanced human being is, by definition, 'impaired'. Impaired people are those who are not able to improve themselves beyond what is normal for our species (the 'techno-poor impaired'). This development has the danger of decreasing pluralism among humans. Tolerance and appreciation of human diversity is thus at stake.

Disabled people can opt to be seen as inherently defective and subnormal, in need of being fixed by science and technology towards a societal norm of the so-called non-disabled (for example, giving legs to amputees that will be as good as or worse than 'normal' biological legs). Beyond this, they can opt not only to be fixed to a species-typical norm but also to be enhanced, augmented beyond the species-

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26 http://www.bioethicsanddisability.org/DPI.html

typical norm (for example, giving bionic legs to amputees that work better than biological legs). Alternatively, they can opt for changing the physical environment, the interaction with the physical environment and the societal climate to accommodate their biological reality (for example, giving wheelchairs to amputees and making the physical environment wheelchair-accessible.

I think it's fair to assume that in a situation where 'impaired' people feel that an accommodation of the environment (physical and socially) is not realistic they will opt for enhancements. Indeed, many transhumanists are very aware of the potential to use disabled people as a trailblazer for the acceptance of transhumanist ideas and products.[27] As James Hughes, the former executive director of the World Transhumanist Association, writes, 'Although few disabled people and transhumanists realise it yet, we are allies in fighting for technological empowerment.'[28]

As many 'traditionally disabled people' are poor and live in low income countries they have far more to lose than gain from the new developments

However, as many 'traditionally disabled people' are poor and live in low income countries they have far more to lose than gain from such a shift. They might think that they are better off because they would share that lack of ability with others who can't afford the enhancement, but we can expect that resources would rarely reach people who are below the traditional norm. This is because with the same amount of money more people who already fit the traditional norm could be enhanced than people who are different.

As Murray and Acharya have written (Murray is the father of 'disability-adjusted life years' – a measure developed to give decision-makers a tool to judge whom money should go to in the allocation of health interventions), 'individuals prefer, after appropriate deliberation, to extend the life of healthy individuals rather than those in a health state worse than perfect health'.[29] If this is indeed true it means that society is likely to choose to enhance the lives of healthy individuals rather than those in a state of less than perfect health because it will be seen as better value for money. The push for enhancement versus cure might also make sense from a general market perspective. Healthy people very likely have more money to spend and therefore this group is more profitable than sick people. Companies mostly go

27 World Transhumanist Association, 'The Physically Disabled', 2004.
    http://transhumanism.org/index.php/WTA/communities/physicallydisabled/

28 Hughes, J., 'Battle Plan to Be More than Well: Transhumanism is finally getting in gear', 2004. http://transhumanism.org/index.php/th/more/509/

29 Murray, C. J. and Acharya, A. K. 'Understanding DALYs (disability-adjusted life years), *Journal of Health Economics*, Vol. 16, No. 6, 1997, pp.703-730.

where they can make money. That is why there is already more of a focus on diseases of the middle and high income countries than the diseases of low income countries.

The commercialisation and commodification of abilities

It is important to track and critically analyse the commercial, political and cultural landscape in which human performance enhancement takes shape – and what are likely future trajectories.

We currently see a legitimisation process taking place through the complex interaction of a broad range of actors, preparing the ground for wider acceptance of enhancement and its commercialisation. One important actor is the military, which is pursuing research and development of human enhancement to improve the capabilities of soldiers, but also driving a demand for technological fixes for war veterans impaired by combat. The gaming industry is another, quite different, actor that is simultaneously creating new demands and market opportunities for enhancement. The increasing sophistication of computer games, creation of virtual realities and new interfaces between player and machine are likely creating acceptance and temptations for a step-by-step move towards enhancements and increasing human-machine integration. Sport is a third factor that likely increases the legitimisation of enhancement. Although deeply contested, doping is already pervasive and is seen as something unavoidable by many, both among athletes and the public (it is interesting to consider how the roles and status of the Olympics and the Para-olympics may shift in the future; what will be the implications when the best performances and records are all being achieved in the Para-olympics by 'impaired' athletes with extraordinary enhancements?).[30]

The ground is being prepared for wider acceptance of enhancement and its commercialisation

In this legitimisation context it is of critical importance to anticipate the next moves by different interest groups. How, for example, will the pharmaceutical industry move into the realm of enhancement? This is where very likely a great deal of future profit will reside, and there are thus tremendously strong forces in motion. The commercialisation of the body is about to take another fundamental leap. Will we see a shift to enhancement drugs rather than 'sick people's drugs', with all traditionally 'normal' and 'healthy' persons as potential customers – if they can afford them?

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30 Wolbring, G., 'Oscar Pistorius and the Future Nature of Olympic, Paralympic and Other Sports', *SCRIPTed – A Journal of Law, Technology & Society*, Vol. 5, No. 1, 2008, pp.139-160. http://www.law.ed.ac.uk/ahrc/script-ed/vol5-1/wolbring.pdf

A look into the future...

My daughter is 10. Fast forward 25 years, and she is having her first child – early by the standards of all her friends, but she's keen on 'natural'. Of course, she did pre-implementation genetic diagnosis, and she and her husband (yes, very old fashioned, they married) had some agonising days deciding on whether to modify a genetic predisposition to depression and whether to splice in a gene for enhanced intelligence. In the end, they felt they had no option but to give their baby the best possible start in life.

Five years later, my little granddaughter is starting school. Again her parents have talked over the pros and cons of cognitive enhancement. A pharmcogenetic package is now routinely offered on the NHS after the government decided that, given international competition in the global knowledge economy, there was no option but to ensure the nation's schoolchildren had better powers of memory and concentration. I had my doubts, but I have to admit that my little granddaughter is proving a wonderfully clever creature – a constant source of amazement to me.

My doubts were in part assuaged by the fact that I had already started stronger doses of the same cognitive enhancement drugs. They've helped hugely with my forgetfulness (I'm just hitting my 70s). They are part of a cocktail of drugs I'm now taking to postpone many of the effects of ageing. I dithered a bit but in the end there was no option. I'm doing the childcare for all my five grandchildren and I need to be strong and fit for them. My age expectancy is now 110, so the plan is that I can help out a bit with the great grandchildren too.

What we've been unhappy about is that my daughter has been very tired trying to hold down her job and be a mum, and she's come under a lot of pressure from her boss to get help. What they mean is that she should go on to Provigil. They point out that if she was taking it, she could miss several nights of sleep without any problem. Her colleagues call her a bio-Luddite for refusing. She's already the only one not to have taken her company's early diagnosis – she said she didn't want to know whether she was going to get Alzheimer's disease in 30 years' time.

The other thing that concerns us is that many of the children in my grandchild's school have had much better enhancement programmes. The cleverest went to China for the latest technology. I can see that my grandchild is never going to keep up. At the moment, she doesn't mind that she's bottom of her class, but she'll be lucky to get to a good university. The one hope I've got is that they might introduce quotas for 'naturals' or 'near-naturals' like her. Anyway, to cheer her up I bought her the equivalent of what we called iPods in the old days – the chip inserted behind her ear gives her 24/7 access to stories and music. She downloaded a book I loved when I was her age, Little House on the Prairie. She thinks it's magical.

Sound far-fetched? It's anything but. This is the most conservative of a range of scenarios about the possibilities of 'human enhancement' that have prompted fierce debate in the US and are exercising many a scientist's mind around the world. The pace of development in four distinct disciplines – neuroscience, biotechnology such as genetics, computing and nanoscience – is such that many envisage dramatic breakthroughs in how we can modify ourselves, our physical and mental capabilities. We could live much longer and be much stronger and cleverer – even be much happier. A whole new meaning to 'Be all you can be'.

Madeleine Bunting
Guardian columnist[31]

31 Bunting, Madeleine, *Guardian Unlimited*, 30 January 2006.
http://education.guardian.co.uk/higher/comment/story/0,,1698065,00.html

The market logic behind these developments is powerful. Even if many people would be instinctively hesitant to take enhancement drugs or treatment to improve their capabilities, many would probably be inclined to do so if they were given the right reason or found themselves in particular circumstances. The rat-race of ability competition will make many feel obliged to join in – in order to keep the job, succeed in school or simply keep up with all the stresses of modern life. Those not able or willing to join in will lose out.

Science, technology, governance and democracy – ways forward

Human performance enhancement is only one aspect of new, emerging and converging technologies with implications for the disability and ableism discourse – and society at large.

For example, new technologies that enable constant monitoring of body functions and implanted chips that keep track of where a person is located may be justified as useful devices to help sick and 'impaired' people with illnesses such as Alzheimers, but there is also the danger of a slippery slope towards a surveillance society with massive centralised control of our lives. The social acceptance level of sensors and of being monitored, as well as public sharing of personal information, are increasing constantly – just consider the phenomenon of Facebook.[32]

New converging technologies will also play a major role in combating climate change. On the one hand, new large-scale, quick-fix solutions – 'geo-engineering' – are currently undergoing a legitimisation process, from having been completely taboo a few years back.[33] However, we can also foresee a development where 'adaptation' to climate change is not only confined to the physical and socio-economic environment but also to the human body. As living conditions change and become more extreme due to global warming, the demand and market for alteration of the human body and mind will likely escalate. The existential crises associated with a climate spinning out of control will open up possibilities for new, 'therapeutic'interventions.

New technologies enable constant monitoring of body functions

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32 Wolbring, G., 'NBICS and Tele/e-Health, Medicine and Care', 15 July 2008.
    http://www.innovationwatch.com/choiceisyours/choiceisyours-2008-07-15.htm

33 ETC Group, 'Gambling with Gaia', ETC Communiqué No. 93, 2007.
    www.etcgroup.org/en/materials/publications.html?pub_id=608

Common to all these examples is a lack of discourse around social impact, risk and governance, as well as a lack of participation by marginalized and directly affected groups.

We need to ask what abilities we cherish and for whom they should be available when, for example, we discuss adaptation and mitigation to climate change. Do 'impaired' people have the same needs and are their needs assessments visible? What would a transhumanised model of ableism mean for responses to climate change? Would it mean the modification of the body beyond the species-typical as a means to adapt? Who would have access? What would this mean for other possible options?

All these possible trajectories force us to tackle some very deeply rooted notions that have significantly shaped our modern societies, for example the privileging of certain values – such as competitiveness – over others – such as empathy – and to think about what abilities are favoured and seen as progress. What kind of progress and knowledge is it that we most need, to deal successfully with the multiple challenges confronting us today? What is needed to create sustainable, equitable and resilient societies? What is development really about?

Clearly, the political, economic and ability context in which science, technology and social policy are developed is at the core and needs to be discussed in open, critical ways. This is certainly one of the most important conversations that should take place in our societies. Scientists, commercial interests, government decision makers, civil society organisations and social movements need a much broader, holistic analysis of the impacts of science and technology developments. As Wendy Harcourt exemplifies from the women's movement, this may not be all that easy and fast – but it is utterly necessary.[34] Civil society has a particularly critical role in mobilising and influencing other actors – but only a handful of organisations have so far grasped the magnitude of the NBIC challenges and applied a framework which puts ableism centre-stage.

It is my firm conviction that the confluence of challenges confronting us cannot be dealt with successfully without explicitly addressing various aspects of ableism.

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34 Harcourt, Wendy, this volume, p.163

Addressing ableism

Society needs to actively consider and engage in:

- Ability studies: we need to study economic, social, cultural, legal, political, ethical and other considerations that lead to favouring certain abilities over others and the consequences of these choices.

- Ableism foresight: we need to anticipate and understand shifting social dynamics enabled by advancing sciences and technologies and other developments that lead to a change in ableism and what abilities are favoured.

- Ableism ethics: we need participatory discussions on values and ethics in relation to our bodies and abilities, to favouritism for certain abilities, and to reactions towards humans and other biological entities that are seen to lack essential abilities, whether these are real or perceived.

- Ableism governance: we need frameworks, standards and practices for the governance of ableism – that is, how to handle the favouritism for certain abilities and the reaction towards non-favoured abilities.

Even the most techno-optimistic groups such as the World Transhumanism Association acknowledge that we are moving into realms where, wrongly used, the new powerful technologies may lead to catastrophic scenarios and an end to humanity.[35] This, if anything, justifies an approach where our options for the future are discussed in the most serious and critical way – and where we are prepared really to act with caution and say no until we are convinced about what is a reasonable direction for the future.

If we do not act now we are sleepwalking into a society which will move from today's – unacceptable – disableism to its transhumanised form, with direct and dire consequences for the large majority of the global population and the pluralism so needed among humans.

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35 World Transhumanist Association, 'The Transhumanist FAQ – A General Introduction', Version 2.1, 2003. http://www.transhumanism.org/resources/FAQv21.pdf

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He publishes the Ableism Ethics and Governance blog (http://ableism.wordpress.com) and a blog on NBIC and its social implications (http://wolbring.wordpress.com). He also frequently comments on new and emerging sciences and technologies at 'The Choice is Yours' (http://www.innovationwatch.com/commentary_choiceisyours.htm) and the What Sorts of People blog (http://whatsortsofpeople.wordpress.com/). He can be contacted at:

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Global women's rights movements – Feminists in transformation[1]

Wendy Harcourt

Introduction

I think I was born a feminist. My mother was one of two women who led the fight for abortion on demand in my home state of South Australia back in 1970. The same year I was reading Germaine Greer's *The Female Eunuch (1970)*. The significance of both I probably did not fully comprehend but they put me on the path, like many others in the 1970s and 1980s, to fight for women's rights. My path began as an Australian student fighting for the right to walk safely at night on the university campus and marching on the streets against rape in war. I also formed a feminist group to save the environment, protesting against logging and mining companies. Later, in Europe, I joined women at Greenham Common to stop US missile bases. I was lucky enough to continue my engagement with feminism and environmentalism through my paid work at an international NGO and as editor of an international journal in Rome. In this role for the last 20 years I have become involved in the transnational women's rights movement, lobbying and advocating for gender equality, ecology, and economic, social and human rights at national and intergovernmental level.

One could read this as just my personal trajectory, that of an accidental feminist so to speak, but as I look around me there are many other women who have taken similar paths. We have begun working at local levels and then, over the years, fuelled by the global communication technologies and the increasing outreach of transnational networking, found ourselves working both locally and globally. From marching to reclaim the night in our localities we find ourselves also meeting in huge halls of the UN to exchange experiences and strategies and to push for international agreements that have made what

were once silence issues, such as rape in war, not only visible but re-cognised as an international crime.

In this essay I would like to take the opportunity in response to the *What Next* project to reflect on my and other women's collective his-tory in order to think about where we, transnational feminists, are now. Where are transnational feminists mobilising now? Where are their sites of action? What types of strategies have emerged? Where do we want to go? What are some of the creative tensions and contra-dictions in our histories that are going to enable us to move forward and forge new paths? What are the issues we need to be considering in the future? How can the global women's rights movements work with others to make our visions and hopes possible?

First, some warnings

As this is a very personal view I feel the need to set out some of the parameters of how I will explore these histories before coming to 'what next'. First of all, the language you will encounter may seem too specialised. So bear with me, this essay is aiming to translate in-sider knowledge into outside knowledge. While I will do my best to explain the terminology, it is important to say up front that innova-tive and evolving ideas are being created by the discourse of feminism which is multilingual and multicultural. And, indeed, this deliberate and transparent contestation around language is part of the history of the global women's rights movement.

A second warning is about using the term global women's rights move-ment at all. Many would ask: is there a global women's movement? My reply is that there are many groups of women who are coming together from local struggles and have found it useful to strategise transnationally in the context of global opportunities and challenges. As I write this essay I am receiving many messages from around the world, about Iranian women's arrests, updates on the UN gender ar-chitecture from New York, messages about new publications in Ken-ya and upcoming meetings in Pakistan and Sri Lanka. I feel part of a global women's movement. Even if I recognise that there is great diversity among our struggles and interests, what some call fluidity, there is something vibrant which is engaging women and their strug-gles across many countries.

I need to clarify that I am talking about progressive, feminist women's rights organisations that have come together at the global level. These organisations interact with other women's groups such as the radical

There is something vibrant which is engaging women and their struggles across many countries

women-only organisations that do not accept outside funding, the professional women's organisations, and religious and charity organisations. However the feminist groups I am interested in here (and indeed work with) are defining and being defined by the transnational agenda that pivots around and away from international fora such as the United Nations (UN) and the World Social Forum (WSF). They address the UN and transnational processes as community-based and non-goverment organisations, some registered as NGOs, some not, connected through global networks that bring together feminists and feminist organisations or individuals committed to women's rights. One useful description of these groups is by Rosalind Petchesky, a feminist activist and intellectual based in New York, who calls them 'polyversal feminists' (2003: 273).[2]

Another warning is that it is very difficult for me to name names or ascribe specific ideas and historical moments to particular women, or even particular networks. They are a fluid group, with a shifting leadership depending on energies and issues, and one that consciously seeks not to be dominated by any one set of people and certainly not women identified as Western mainstream. There are core institutions physically situated near New York and the United Nations, which because of their proximity and access to the United Nations are pivotal in UN advocacy work, but in much of the analysis, campaigns and alliances Global South women's movements play a major role. Leadership, as many feminists acknowledge, is a contested issue within feminism, one most of us shy away from. But essentially, it is the knowledge of processes that is determining leadership, as well as proximity and strategic placement in the structures. Feminists work together in ways that are fluid and reliant on sharing histories and knowledge, and stress the need to work in open and inclusive ways and to recognise that power and knowledge has to be shared.

While power challenges are continually and healthily going on, I do not want to ascribe leading roles to any one group. I am more inter-

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2   See 'Window on the world', *Development: Place, politics and justice: Women negotiating globalization*, Vol. 45, No. 1, pp.143-147, March 2002, for a short description and websites of around 30 organisations and networks who fit this polyversal definition: including the Association for Women's Rights in Development (AWID), Centre for Women's Global Leadership, Development Alternatives for Women in a New Era (DAWN), International Women's Health Coalition (IWHC), Women Living Under Muslim Laws (WLUML), MADRE (an international women's rights organisation), Research Action and Information Network for the Bodily Integrity of Women (RAINBO), The African Gender Network, AMANITARE (coordinated by RAINBO), Women's Environment and Development Organization (WEDO), Women's Global Network for Reproductive Rights (WGNRR), WomenAction, Isis International, Network of East-West Women (NEWW) and Women in Development Europe (WIDE).

ested in the changes that are happening and in identifying some of the tensions, particularly the ambivalence around the UN as a major space for the global women's rights movement. In terms of 'what next' we have much to learn from how women negotiated their space in the UN and how they are coping with the disillusionment and where they are looking for new spaces.

Last warning: I am offering a frank insider's view, based on my own reflections, conversations, writings and interpretations.

What is 'body politics'?

My first task by way of translation is to explain three key terms that inform the paper. So, to begin with 'body politics'.

I use the term body politics to refer to the political struggles around the rights of women that are centred on the body. I include here feminist struggles to end gender-based violence, ensure women's autonomy, including sexual choice, and promote sexual and reproductive rights and women's health. I see these issues to be at the heart of what distinguishes women's rights movements from other rights movements. Many feminists enter the political arena through struggles around the body. The struggle against gender-based violence and for abortion and access to reproductive health care are often where women first find themselves battling for their rights and in the process find their political voice. Feminists find it difficult to prise this set of struggles from other political and economic concerns that impact on women. But many other movements and institutions do not understand how these bodily concerns inform their agendas. They ask: what has reproductive rights got to do with trade? Finance for development and sexual rights – but how are these connected? Globalisation and violence against women – how are they part of the social movement agenda?

Body politics emerges from various histories, cultures and struggles within Europe and America, Africa, Asia and Latin America, and through an exchange of writings and actions it has been woven into the transnational feminist discourse.[3] One of the first articulations of body politics can be ascribed (at least from my own experience) to the French philosopher Simone de Beauvoir's foundational *The Second Sex* and the second wave of feminism in the 1960s which explored and challenged the sense of the female body as 'the other'. Through

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3   I am exploring this history in a book entitled *Body Politics in Development: Critical Debates in Gender and Development,* (Harcourt, 2009).

Fighting for abortion rights

body politics or what Yvonne Underhill Sem, a Pacific feminist activist from DAWN, has described as 'fleshly politics', the lived experience of the female body becomes an entry point for political engagement (fighting for abortion rights, 'reclaim the night' marches, protesting against the use of rape as a weapon of war and protesting against beauty pageants). The use of the term deliberately moves away from the liberal notion of feminism based on women and men as 'different but equal'. Instead, it conveys a more complex concept of gender differences. These differences are marked out on the body, in cultural, social, economic and political positionings of the physical body. Such external markings, be they bruises and scars from violations, poisonings and worn–out limbs from exploitation in the field or factories, prolapses, high heels or the veil, are, for feminists, as much part of the political struggle as the demand for equal pay for equal work, gender quotas in parliament or drinkable safe water.

During the 1990s body politics which was essentially localised and invisible became a global issue. Global body politics became constructed through the UN arena via the programmes, policy and advocacy strategies around women in development, gender and development and women's empowerment.

I was an insider in this process through my writings, advocacy work and projects with grants from UN and private foundations. In pondering 'what next' I have felt the need to step outside and look at why it was I found the space to look at body politics at that particular moment with that kind of funding? And why, in the course of the projects and writings I undertook globally, did I find other feminists equally intrigued as to why we were once on the streets and being arrested but were now being invited into the UN and being given money and space to say the same things?

Introducing biopolitics and biopower

I have found the Foucauldian concept of biopolitics useful in my analysis of how body politics evolved within the UN discourse.[4]

Michel Foucault's concept of biopolitics, as set out in his *History of Sexuality* (2006), allows us to understand power as not only imposed vertically by oppressive hierarchical forces, but also as horizontally produced and embedded in language and practice. Biopolitics is the politics of the administering and governing of life through a number of processes that we tend in modern life to just take for granted. For ex-

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4   Foucault (1976); Harcourt (1986); Charckiewicz (2004).

ample, the idea of collecting statistics to produce the concept of the 'average' weight or height. This measuring of life is in itself, Foucault argues, a political process. It measures and analyses the body in an array of strategies that then produce the modern sense of both individual and social subjects. Biopolitics allows us to go beyond the body as a static given, locked into certain biological rhythms. Instead, in this process of biopolitics it is a fluid site of power and political contestation. Population statistics, medical records, thumb prints on our passports, identity cards that state our height and eye colours, magazines advertising ideal bodies, are all part of biopolitical strategies that categorise the body both as an individual and social subject. Body politics entered into the development discourse as the many biopolitical strategies around the body intersected in the 1990s. The language and practices of family planning, the medical professions, population statisticians and feminist advocates came together, producing gendered bodies as an interesting set of objects and subjects of study. The measurements, projects, documents, policy meetings (to name a few of the strategies) created a specific set of meanings of the female body, health and identity.

A third concept which I have found useful is the related Foucauldian concept of biopower. The concept of biopower helps us to go a little further in understanding how body politics works in modernity. The strategies of biopolitics are by no means neutral. The specific set of meanings are being determined by institutions that are setting up the frame in which we understand the body. But it is not that a set of people – say white male security guards at the airport – are directed by governmental decree to treat with suspicion all veiled women who come into the airport. Biopower refers to the microphysics of relational understandings of power. Foucault sees power as immanent in everyday relationships, including economic exchanges, knowledge relationships and sexual relationships. Micro-level practices of power are taken up in global or macro strategies of domination. These power plays are not through centralised power, but through a complex series of infinitesimal mechanisms. These mechanisms of power continually change, linking micro and macro levels of power. Modern administration and government are exercised through a whole range of institutions, procedures, analyses, reflections, calculations and tactics. They compose a complex system employing a variety of modes to achieve a particular end – for example, the oppression of women, or the emancipation of women. In understanding how biopower is played out in body politics we need to dissect the many interconnecting micro-strategies and macro-strategies of power in the different practices around the United Nations and also how biopower operates in other fields where feminists are engaging, such as the WSF.

A personal chronology

What I am interested in is how biopolitical strategies around the female body are played out in the three chronological phases of the global women's movement as I have experienced them:

The first period is the late 1980s to the early 1990s. This was a time when I and many others in diverse civil society movements became engaged in global processes, beginning with the preparations for the 1992 United Nations Conference on Environment and Development (UNCED).

The second period, from 1992 to 1999, takes place around the series of UN conferences on different facets of development (environment, human rights, population, social development, women, food security). This was a complex and fraught period marked by the hope that intergovernmental promises and policy could be 'put into practice on the ground'.

The third period dates from 1999 to the present, beginning with Seattle and other mass demonstrations against the World Bank, the International Monetary Fund and corporate-led globalisation. Here the WSF emerged as a potential site to develop these debates and for women to bring body politics into economic justice concerns, and for a strong critique of neoliberalism and the various forms of fundamentalisms.

Engagement with sustainable development

My starting point is the World Women's Congress for a Healthy Planet in Miami, Florida, in late 1991; and the series of meetings hosted in the Planeta Femea (the Women's Tent) at the Global Forum, the non-governmental forum of the Earth Summit of UNCED in Rio de Janeiro, Brazil, in mid-1992.[5]

The Miami and Rio de Janeiro women's events were marked both by an enthusiasm over different women coming together and by a strong ambivalence about women entering and supporting the global develop-

The Miami and Rio de Janeiro women's events were marked by an enthusiasm over different women coming together

5   The World Women's Congress for a Healthy Planet was held on 8–12 November 1991, convened by the Women's International Policy Action Committee with 54 women from 31 countries and organised by the Women's Environment and Development Organization. The five-day congress drew 1,500 women from 83 countries. It produced the Women's Action Agenda 21 and was seen as a major preparation for the 3–14 June 1992 UNCED in Rio de Janeiro. Planeta Femea was organised by the local Brazilian committee, together with WEDO and DAWN. The Women's Declaration was issued on 10 June at the conclusion of the 1992 Global Forum of the Earth Summit. It built on the Women's Action Agenda and was closely linked to Chapter 24 of the Earth Summit final declaration under the section 'Strengthening the Role of Major Groups in the Agenda 21 Programme of Action for Sustainable Development' . The final text of agreements was negotiated by governments at the 3–14 June 1992 UNCED in Rio de Janeiro.

ment agenda. The meetings were critical of the mainstream develop-
ment model that treated women, the environment and population as
technical subjects within the overarching goal of improving global eco-
nomic growth. They decried elitist technical solutions to poverty, injus-
tice and environmental degradation (WEDO, 1992; APDC, 1992).[6]

In terms of understanding the play of biopower it is interesting to see
how the different tensions between progressive and mainstream de-
velopment were tackled by these early transnational feminists. In the
process of establishing the legitimacy of the ideas coming out of these
meetings women created new types of political processes in order
to engage with larger-scale UN and other institutional political and
economic processes.

Though the stated goal was to produce texts to infiltrate and change
the official Rio de Janeiro process, women's groups engaged in the
process designed actions decidedly differently from UN official prac-
tice. The opening ceremony in Miami was led by indigenous women
of the land where the Hyatt Conference Centre had been built. There
was a song of welcome to the audience of a thousand or more women
from around the world. Leading women from each region gave mov-
ing testimonies on the damage wreaked by development on their land,
culture, people's bodies and the balance of nature.[7] The women judges
– judges by profession from Australia, Guyana, India, Kenya and Swe-
den – presented their findings, and this was followed by a series of cau-
cus statements by women from each world region, including women
of colour and indigenous women. The reports were put together by a
team of women and circulated to ensure consensus, read at the final

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6   The Women's Agenda reported in the Asia Pacific Development Centre (APDC)
     that 'Planeta Femea...was a success for all it set out to do and more... Meetings,
     debates, panel discussions, smaller workshop groups brought over 1,200 women
     daily for a week and a half to consolidate their perspectives on environment and
     development issues and to provide a platform for women (and men) to voice
     grievances and frustrations, share experiences and strengths and provide support,
     advice and critique to one another... [T]here is now going to be a new focus on
     "sustainable development" and NGOs, especially women's NGOs, should use this as
     an opportunity to define it as an alternative to the dominant model' (WEDO, 1992: 6–9).

7   These carefully staged testimonies and judgements began with a code of Earth
     Ethics where speakers included the 2004 Nobel Peace Prize winner Wangari
     Maathai and continued with elegant statements on how women are saving natural
     systems in the environment and contributing to positive development and then
     how science, technology and population are constructing regimes that women are
     resisting. The conclusion was: '[W]omen have a wealth of knowledge and experience
     in environmental issues. Their expertise should clearly be utilised in planning
     and implementing the policies necessary to overcome the problems identified'
     (WEDO, 1992: 13). The outcome was an intriguing mix of strategies aimed at the
     establishment, and at the same time at building women's own autonomy to act.

ceremony and assembled in a report ready to be delivered to the media, governments, the UNCED Earth Summit, women's and social movements as 'a compilation of the work, ideas and values of 1,500 women' and as a 'challenge to women and men to work together to create a safe and sustainable future' (WEDO, 1992: 16).

In this process, the power of women's knowledge as well as the differences between women were acknowledged and even celebrated at the same time as consensus was built through these practices. As one of the participants I can testify that there was a strong sense of excitement that there could be a collective voice and strategy, despite the different histories and values.

Local Brazilian women staged demonstrations against Nestlé and in favour of breastfeeding

Planeta Femea, organised by the group that arranged the Miami meeting, was the largest central tent among the hundreds of tents set up at the NGO Global Forum at Flamingo Park in Rio de Janeiro. It hosted heated debates among representatives of women's networks on economic, political and social issues, leading to successful inputs to the women's chapter of Agenda 21 – the official outcome of the UNCED governmental meeting. The speeches and panels were interspersed with an international marketplace of discussion and trading of crafts and books, with interludes where local Brazilian women staged demonstrations against mining companies or Nestlé and in favour of breastfeeding. At Planeta Femea, women's networks and organisations met across different concerns and, in the Global Forum, they intermingled with ecologists and representatives from peace movements, trade unions, youth organisations, development NGOs and local community groups in what was to become one of the first in a series of counter-events to UN meetings in the 1990s.[8]

The women's rights agenda that emerged was far-ranging, bringing together in a holistic and critical account all of the 'women's issues' – sexuality and health, reproductive rights and reproductive health issues, fair pay and access to work outside the home, violence against

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8   There are many reports written in 1992 and after on the Earth Summit process besides the official publication of the Earth Summit (UNDPI, 1992). As editor of the WIDE Bulletin, I wrote a series of reports (WIDE, 1992), and the Society for International Development produced a special issue of the journal *Development* on the Earth Summit (1992, Special Issue No. 2). Other international NGOs that wrote about the Earth Summit from a critical perspective include the Third World Network and the Northern Alliance for Sustainability; among those that wrote about women's contribution to the Earth Summit are WEDO, DAWN, Isis and the APDC Gender and Development Programme. Much of the grey literature, where most of the spirit of the Earth Summit was captured, is now archived or lost as NGOs close down or move on. The Oxfam journal *Gender and Development* covered aspects of the debate in its 1992-1994 issues.

women, legal rights to land and to political decision-making, the fight against big corporations destroying community and nature, the struggle for peace, the basic needs of the economic poor, North-South inequalities, gender blindness of economics and development policy. The concept of environment and development was pushed far beyond the sustainable development paradigm introduced by the Earth Summit as women's experiences and shared knowledge combined with a political sophistication of how to tackle mainstream ideas and policy. The focus was on militarism, debt, trade and inequality, and the meeting was conscious of the North-South spilt, particularly around population issues.

The danger was that the sense of celebration and inclusion of all women could lead to a naive essentialism – that is, that women were closer to nature or naturally more peaceful than men just because of their being women. The emphasis was, therefore, on finding strategic common ground, along with a shared sense of optimism that the women's movement could take on the establishment. Interestingly, although the Women's Environment and Development Organization (WEDO) was the main organiser, it was Development with Alternatives for a New Era (DAWN), the Global South research-based women's network that provided much of the strategic analysis of the final document (Antrobus, 2004).

Several alliances were formed in order to achieve this goal

The practices that emerged during the ensuing years in order to put these ideas into motion in the official arena were complex, requiring the wherewithal to negotiate with governments, UN agencies, international financial institutions (IFIs), the private sector and academic institutions. Several alliances were formed in order to achieve this goal, some with funding to form organisations with offices in the power hot spots – largely Washington or New York. WEDO, made up of key women from the environment, reproductive rights and economic justice movement, emerged to play a strong role in motivating women around the UN processes centred in New York (WEDO, 1992). An alliance among European, American and Southern networks, which was coordinated from New York and fed into the multiple processes around the United Nations, eventually evolved into the Women's International Coalition for Economic Justice (WICEJ).[9] The Center for Women's Global Leadership at Rutgers University in New Jersey brought a strong global focus to women's human rights.[10]

9   www.WICEJ.org

10   www.cwgl.rutgers.edu

And many other groups, such as DAWN[11] and WIDE,[12] were visibly strengthened through the networking at Miami and Rio de Janeiro, as was evident in their work, which spun off into other global and regional events.

The Miami and Rio de Janeiro meetings were historic moments that fostered a collective feeling of hope and excitement and sense of power that women could negotiate with government, learn about diverse women's lives, cut through the gender bias of research, and ultimately bring about transformative practices that would end the boxed-in categories of women, population, health, rights, environment, economics and culture.

Entanglements with the gender and development discourse

In the 1990s, the progressive global women's movement emerged as one of the visible players in the UN arenas. The effort made to engage with the global development agenda and to produce a process of empowerment that countered the hegemonies of knowledge and power that had been analysed in Miami and Rio de Janeiro is evident. Referring again to the Foucauldian notion of biopower, in these years women became embedded in the dominant development discourse. Some saw it as co-option; certainly, it was a time-consuming and difficult process for those women who were engaged in it. Even while protesting against the disempowering impacts of development, producing counter-knowledge and proposing other practices, women were tied into what a Foucauldian reading would call an array of procedures, analyses, reflections, calculations and tactics. In these many engagements, the global women's movement became caught up in micro-strategies that brought their issues into the UN arena. As specific expressions of biopower these discourses defined the female body as an individual and social subject of development.

In the negotiations within the intergovernmental processes, the global women's rights movement aimed to empower women, change the gender bias and inequities in development policy and achieve gender justice. Essentially, in UN-speak it was about 'mainstreaming' gender in development or making women's work and lives visible in development policy and arguing that women were key to putting 'sustainable' development 'into practice'. If women were the key, it therefore followed that women's lives and rights should be more acknowledged

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11 www.dawn.org.fj

12 www.wide.org

and considered, more resources should reach women – particularly in poor and marginalised communities – and more women should be in decision-making positions. The global women's rights movement took up each UN conference in turn and gender-mainstreamed it as well as highlighting different regionally specific needs. It was a highly organised strategic process.

The set of slogans around the 1990s UN conferences illustrates the strategic way that women mainstreamed women's rights and gender concerns, for example, 'women's rights are human rights' at the World Conference on Human Rights in Vienna in 1994, placing women and reproductive rights and health 'centre stage' at the Conference on Population and Development in Cairo in 1994, working with social movements to bring gender concerns into 'human centred development' and 'fair trade' and 'decent work' at the World Summit for Social Development in Copenhagen in 1995, adding the previously unspoken issues of sexual choice and violence against women to the more acceptable peace and women's political representation at the Fourth World Conference on Women in Beijing in 1995 and underlining women's key role in food security at the World Food Summit in Rome in 1996. These represented major shifts in UN approaches and, as the lobbying and advocacy continued in the series of five-year reviews, there was an overall agreement that women and gender as defined by these core global women's rights networks working closely with the UN and government bureaucracies could no longer be ignored.

As the UN conferences moved through different topics, so did the gender and development expertise expand from the environment to rights, population, social development, habitat, women, food, trade and finance. Women, as both objects and subjects, became part of the public sphere of development discourse.

This involved careful organising and thematic, regional and global women's caucusing. WEDO, as a New York-based network with a dynamic visible leadership working with others 'in the know' took the lead here, particularly at the UN global conferences. It, along with other key networks, held briefings and caucuses, often distributing the texts that were to be negotiated on computer disc so that the women would have 'their text' ready to hand when meeting often much less organised government delegations. Such processes meant daily information-sharing, dealings with the official governmental delegations and knowing how and with which governments to liaise. In between meetings it meant strategically seeking out the sympathisers in the UN bureaucracies in order to decide which issues to

lobby for and which ones to let go. This ongoing process was time-consuming and, therefore, also involved the search to find funds to build the capacity of different representatives of the women's movements around the world to visit New York and other UN conference venues.

These were the women who could negotiate the maze of corridors in the basement of the United Nations

In these discursive practices, the discourse around women and global development – whether on rights, population, social development, food security, empowerment, environment or trade negotiations – grew into a small industry of proliferating NGOs, institutions of gender experts and women's networks closely attached to the UN processes. These were the women who could negotiate the maze of corridors in the basement of the United Nations. They understood who was who in the agencies and, at times, they also worked for those agencies. They knew the moment to enter the assembly room of a UN event and when to have a coffee or chat in the corridor. They were the ones who organised and briefed the newcomers and called for caucuses. They could liaise and, perhaps, eventually join the delegations. And as the media became more effective, they were the ones who could report efficiently and quickly, cut through the maze of jargon and link women at home to the debates. These were the women who defined the global 'women's' or gender position. They were able to interpret and explain the trends of the discussion. They were the ones who lobbied for women's voices to be heard, who could advise on how to mainstream gender and were among those trusted in government and among the bureaucracy to recommend the funded participants for the regional and global meetings; they were the experts who could take the message back home, if indeed they returned home.

These micro-practices of talented and committed women helped build a new set of biopolitical practices around the female body, as women negotiated their way through the UN processes. This opened up officialdom, provided a space for women to meet and share, debate, provoke and advocate and to put their agenda on the global UN arena. It was these efforts that put the issues of violence against women, sexual choice, reproductive rights and health, maternal mortality, access to natural resources, gender justice, gender and trade, and the care economy on the global development agenda. By the end of the 1990s, women were no longer in the official parlance the 'the poorest of the poor' victims and not the subjects of their own lives. The global process also gave political support to many concerned about injustice locally – it was a way to move from often intractable national-level problems to the global arena. The UN conferences gave credibility to women's issues, which were usually safely ignored on

the local front. And, at the same time, the proliferation of UN meet-
ings and the political need to 'engender' the debate provided jobs and
careers and visibility to those engaged, as, indeed, had been the case
for male colleagues for years.

Given the roots of many of the women engaged in local body political
struggles, it is not surprising that in the end there was a sense not of
achievement, but of frustration. Reviewing those years, it is possible
to see how women's groups entered into a dominant set of biopoliti-
cal practices, and in doing so reinforced many of the oppressive tech-
niques they were challenging in the first place. The women engaged
in these essentially bureaucratic processes were no doubt aware of the
dangers of becoming part of the system, and knew that the time spent
on these large meetings was detracting from other actions. It was a
strategic choice, but one that misjudged the way in which power and
knowledge work through bureaucracies, negotiations and the infini-
tesimal mechanisms that are continually renewing and reinvesting
power in procedures determining 'green rooms', pass systems, invited
guests and lobbying procedures, among others. Essentially, this meant
that the very process of dialogue that would allow women to voice
concerns would then turn it into an elaborate process of committees,
agreements, loans and projects, creating a straitjacket of terms so that
the concern, however genuinely expressed, was lost.

Images of women scrounging in rubbish heaps or walking in deci-
mated forests with a jar of water on their heads and a baby on their
back, young girls leaning over factory assembly lines or crouched in
sweatshops making Nike shoes, a dying pregnant woman, the scarred
face of a victim of acid throwing, the pained eyes of a girl who has
undergone female genital mutilation, the plea of a sex worker dying
of AIDS and the huddle of ragged women and skeletal babies in refu-
gee camps were codified into reports and documents as the realities
that the Vienna, Copenhagen, Cairo, Beijing, Rome and New York
conferences could restore to well-being.

The discourse in this codification simplified the vastly different ex-
periences of women around the world who come from so many dif-
ferent cultures and backgrounds. Through the UN official texts, back-
ground reports, statistics and evidence, these experiences became the
generic gendered female body – the poor woman with an expertly un-

She was no longer a victim in need of aid, but a working subject with productive potential

derstood set of needs and rights. She was depicted in various guises.[13] She was no longer a victim in need of aid, but a working subject with productive potential, a willing and useful agent for development. These were the messages, often not so hidden, that reinterpreted the women's rights movements' arguments for autonomy, rights and gender equality. The complex links between health, reproductive life cycles, the caring economy, the market economy, the environment and what was increasingly known by the end of this period as globalisation were repackaged by technical expertise into understandable development concerns. They were put through the UN machine of debate and policy making and came out as the issues that governments could agree to, but, it has to be said, very often did not follow up.

The gender and development discourse, despite all of the attempts to connect social, economic and gender justice, smoothed away the links in its practice and language. In the biopolitics of the management of gender, women's rights, the female body, women and gender issues remained as the 'soft' issues of development. So, when it came to why there were no real reforms that took these concerns into account, or even why there was less and less money to train women, provide health services and counter violence against women, the answer could always be that there were other more pressing concerns to deal with – for example, war, failed states, internal conflict, economic crisis, restructuring, liberalising markets, security, trade agreements – all of which did not seem, in the end, to have much to do with women's demands, figures and case studies, which were mostly considered still as micro-level adjuncts to the 'hard' macro-development issues.

The global women's rights movements' attempt to bring women's multiple needs and concerns into the development discourse became translated in the process of development body politics into an essentially passive 'productive, reproductive and sexualised female body'. This female body was managed and understood through various mechanisms created in development discourse as engaged in particular types of work with specific health and education needs as well as needing special protection from conflict, violence or unfair work practices and sexual exploitation and domestic injustice.

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13 As Betsy Hartmann, environmentalist and feminist research activist based in the US describes in her paper, 'Eve is black, primitive and pregnant and her reproduction is the Original Sin', published in the *Indian Journal of Gender Studies*, the negative images have a reservoir of core stereotypes that resonate deeply in the psyche of believers, in this case, the religious power in the United States concerned about overpopulation (Betsey Hartmann, email correspondence, 20 May 2005).

The specificities of the actual lives lived by these representative female bodies are hard to discern. Even if the claim was for regional and cultural difference, the demands of a global discourse brushed away the differences. The gender-aware global development discourse spoke broadly of different concerns and characteristics of 'women in' South Asia, sub-Saharan Africa, the Arab region, Central and Latin America, East Asia, the Pacific and East Europe. In this sense the female body was able to be compared across regions. Discussions were held on what the average woman could expect in the different regions from different experiences during moments in her life cycle. In this way development policy could predict, monitor and try to change and better her life with more education, better health, more solid investments and more advantageous markets and trade regimes. Interestingly, women who lived in North America, Europe and Australasia were not part of this set of biopolitical strategies. Nor, at this point were migrants or indigenous women who became self-defined as 'Fourth World' women and were largely outside official UN debates. The women from the 'Global North' were lumped together as the 'developed woman' representing the wealth and values of the West. They did not need 'developing' as they had, more or less, the money, access, rights and status for which these other groups of women in the rest of the world needed to strive.

Even if the claim was for regional and cultural difference, the demands of a global discourse brushed away the differences

These biopolitical prescriptions were the unsatisfactory result of the different practices and types of knowledge that the global discourse of gender and development of the body politic centred around the UN produced.

Joining in the movement of movements

By the early 2000s the global women's rights movement after a decade of UN negotiations was clearly conferenced out and sceptical about the Millennium Development Goals and other bureaucratic processes. In their fifth global monitoring report, which is bluntly called 'Beijing Betrayed', WEDO in 2005 called loudly for an end to a policy environment that is increasingly hostile to women's rights.

There was a weariness not just of UN conferences, but of all of the official talk shops and committees and commissions that hardly consult. The task of 'engendering' global development seemed too daunting, requiring too much energy, and there appeared to be a retreat sounded from the UN arena. It was not a complete retreat. Of course some members of the progressive women's rights groups continued to participate in the Millenium Development Goals (MDG) processes, specifi-

cally those who were gender experts in the Millennium Project during 2005. In 2006 and 2007 women's rights movements joined together to strategise around UN reform processes in the push for new gender architecture and a UN agency for women. However, these processes no longer seem to be at the hub of transnational feminist excitement and action.

Going back to the concept of biopower as a way to understand this shift, a reverse locus of biopower has emerged. This can be understood as a counter-politics that is part of biopolitical strategies, as explained above. In the sense that the women's movements was part of creating the dominant power knowledge, there were also nodes of resistance created within it. In the skills learned and knowledge gathered in those micro-practices, there was also resistance. Biopower can be understood as a fluid disorder where power resides not only in the dominant hegemonic structures, but also in the engagement and resistance to them.

As the women's movements confronted, analysed and resisted the growing rise of economic and religious fundamentalism, the spread of neoliberal dogma, the weakness of the United Nations in the face of the undeniable dominance of the United States, the unravelling of women's rights and the continued victimising and sexualising of women's bodies, new biopolitial strategies began to be formed.

After 2000, the global women's movements moved out of the halls of the United Nations and began to engage in other movement processes such as fair trade, the care chain linking migrant women and globalisation and campaigns to end debt. Women's movements began to join up with the 'new' social movements in a combined struggle against neoliberal globalisation, in defence of the community and the common people.

At the same time global women's movements began to define and make their own spaces. AWID reformed dramatically under a dynamic new leadership and transformed a professional Northern-based women-in-development institution into a transnational feminist movement led by Southern-based rights groups, now headed by a young Colombian and working from decentralised offices around the world.[14]

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14 See www.awid.org and *Development,* Vol. 49, No. 1, for an
     account of the changing agenda of AWID.

Another important feature of this period is the emergence of new so-cial movements, or the global justice movement, during the mass pro-tests against the WTO ministerial in Seattle in 1999.[15] These move-ments came together to contest neoliberal globalisation and, later, post-11 September anti-war coalitions and made up the broad alliance of movements that forged the WSF processes.

Mass protests against the WTO ministerial in Seattle in 1999

This new global justice movement is in itself a product of globalisation, working in horizontal and decentralised structures or network struc-tures aided by globalised communication systems such as the Internet, which are decentralised and built on an open cooperative infrastruc-ture. In their actions of resistance, they are part of a countervailing locus of power that responds to the movement and flow of capital and investment. The rapid transformation of companies globally has led to new alliances between North and South trade unions, movements of consumers, environmentalists and farmers' organisations.

In relation to the development discourse, the global social justice movement has a focused resistance to the big international institu-tions, with major demands such as cancellation of debt or rejection of the International Monetary Fund interventions. The movement grew quickly with the massive international mobilisation against the war in Iraq and the growing global protest against the George W. Bush ad-ministration's 'war on terror' and aggressive intervention or nation-building. The protests aimed to challenge the economic and political blueprint largely designed by the multilateral financial institutions in Washington backed by military and strategic implementation.

Strategically, the focus of the global women's movements shifted and global women's strategies for bringing about change diversified. After Seattle women began to engage in the new forms of global politics emerging around the WSF processes. Women's holistic concerns reso-nated with the social movements' critique of neoliberal fundamental-ism. Increasing geopolitical tensions and conflicts post-11 September meant that new alliances and new processes were required, something which the UN MDGs and UN internal reform-led agenda could not provide.

However, although the alternative globalisation movement looked to be an important space for feminists it did not prove to be as welcom-ing as perhaps one might think. The complex forms of gender oppres-sion in modern society that produce, fix and co-opt gender relations

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15   See the June 2005 issue of *Development* on 'The Movement of Movements', Vol. 48, No. 2.

through various techniques of biopower are not only in the United Nations, but also in the social movement processes. Patriarchal hegemonic power is not only played out in the rule of law, but also through horizontal, fluid and disordered micropractices. Women's strategies of resistance to patriarchal practices are also needed in this new domain and, as with the United Nations, the resistance itself becomes a process of shaping new practices and new possibilities for gender relations. The attempt of the WSFs – the seventh was held in Nairobi in January 2007 – to break away from single ideological narratives of the traditional left such as Marxists, trade unions and ecologists, among others, and their efforts to build a new politics from diverse points of view, struggles and tension, was clearly attractive.

As I am an active participant in these debates I can only say these ideas are at best part of a moving feast, but the feminist agenda within the WSF has been to try and bring in what Virginia Vargas, a Peruvian feminist leader and writer, calls 'cultural subversion'. The aim is to include gender equality and sexuality as an integral component of the agenda of the broader movement for social and economic justice; in other words, for the WSF to understand the impact of neoliberalism, not only in relation to social and economic rights, but also in relation to the gender dimensions of social change and cultural struggles over meanings, including feminist struggles around sexuality and equity.

In the WSF in Nairobi in 2007 it is interesting to note that many commentaries (that is, blogs and newsletters; there was little mainstream media coverage, due to lack of mainstream press interest and major logistical problems) recognised the space women and feminist politics now inhabit in the Forum.[16]

The WSF is not only a terrain of engagement, but also one of contestation between new and old structures of thought and action. The Feminist Dialogues (FDs) held around the WSF were created in 2004 because the global women's rights agenda was not being taken on board by many others in the WSF. The FDs have been held prior to three WSFs in order to define and elaborate a transnational feminist agenda and also to understand the role of feminists in the larger social movements, and specifically to bring feminist concerns much more centrally to core WSF concerns. To date the FDs have focused on neoliberal globalisation, militarism and war, and fundamentalisms.

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16 See references to the Feminist Dialogues and other women's meetings: for example, on the websites of the daily newsletter of the WSF by IPS, *Terra Viva,* OpenDemocracy, Pambuzuka and AWID.

Cross-cutting these themes is the body as a site of politics that acts as a mediator of lived social and cultural relations.

It is interesting to note that whereas the first aim to deliberate on a transnational global agenda was somewhat questioned earlier, a decision was taken at the FDs 2007 in Nairobi for participating feminists to explore how to work together beyond the WSF space. As a result joint campaigns with various themes leading up to 8 March and beyond were agreed on. The success of the second, more complex aim, to integrate the feminist agenda into the WSF, is less easy to judge. The struggle for women's rights and sexual diversity and abortion continues within the WSF, but many feminists noted with concern the large presence of Church groups, including one anti-abortion booth at the WSF in Nairobi.

The challenge of how to continue to engage the broader global social movement in discussions and actions that understand gender relations as transversal and cross-cutting – starting with the body – within the many struggles of social justice movements is thus very real. The challenge continues to be how to make an analysis of body politics inherent in the social movements' concerns with the feminisation of labour for example, or how to engage the alternative movement in struggles to end fundamentalist ideology that goes beyond the religious sphere and opens up spaces for oppressive and exclusionary practices that impact on women's lives and bodies in multiple ways. Although the evolution of the transnational women's movement is largely positive and in many ways impressive, we women must continuously ask ourselves 'what next?' – particularly concerning the many new challenges facing society.[17] These questions take us to considerations of 'what next?'.

We women must continuously ask ourselves 'what next?'

What Next?

Much has been learnt in these years by feminists about how to work transnationally, how to deal with tensions and differences and how

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17   Following a *What Next* seminar at the Dag Hammarskjöld Foundation in January 2008, a What Next feminist alternatives working group formed which looks at the nexus between economic globalisation, environment, new technologies and embodiment. This independent initiative aims to provide space to think through some of the implications of the What Next work from diverse feminist positions and thematic entry points. Examples of topics to be explored could be biotechnology, stem cell research and enhancement medicine, environment/geo-engineering issues in relation to food security, biopiracy, biodiversity loss and climate change, the effect of nano-scale technologies on food and commodity production and markets in the Global South, local women's resistance movements, intersectionalities of new technologies with other feminist concerns around fundamentalism, body politics, etc.

to strategise together in order to move complex and changing global agendas. In considering 'what next' we need to identify and discuss the challenges for the feminist movement such as internal movement – organising, as well as identifying the external factors that need to be taken on board. The *What Next* project of the Dag Hammarksjöld Foundation opened up a space for feminists to engage with some key environmental, economic and social issues defining these concerns, away from UN arenas and among social movement research activists. In these debates there are several challenges, both internal and external, that need to be considered.

Internal movement-building challenges

Creating feminist spaces

It is critical that the transnational feminist movement continues to find its own space to analyse, strategise and build trust and thereby strengthen resolves in what promises to be an increasingly complex world. The UN spaces have provided an important forum, but although some feminists continue to engage around the Commission of the Status of Women and in lobbying for a UN agency for women, there is the need for transnational feminists to meet autonomously.

Continuing to meet face to face and claiming space, leadership and history remain a vital internal strategy. The use of the Internet helps vastly to keep people in touch, support each other and launch global campaigns that impact vitally on local struggles. While technology remains cheap and accessible with the use of free telephony and webcams, dynamic feminist collaborations can be built through cyberspace – however, face to face meetings are necessary to keep feminists together and to help them face the future together.

AWID is providing one such transnational space every two to three years. The global AWID Forum held in Bangkok in October 2005,[18] with nearly 2,000 women, was full of an excitement around newer, younger and tougher feminist agendas. Even in the internal criticisms of how the transnational women's agenda is operating, there was an all-embracing sense of belonging to a community and knowing that feminists are making change happen. The Forum showed that the injustice of globalisation, the institutionalised discrimination and racism, and the widening of a North–South divide are at the centre of feminists' everyday struggles. African and Pacific women played major leading roles in the discussion. Young women led conversations

18 See *Development,* Vol. 49, No. 1 for a collection of essays
    and reflections on the AWID Forum.

about networking through blogs and websites. In AWID body politics was clearly discussed; Lesbian, Gay, Bisexual and Trans (LGBT) issues were integral to the debate. One major message was about demystifying money and finance for the movements, looking at who has money and how they use it, and taking into account the historical relationship of the women's movements to money and of course its power.

One network and one Forum cannot embrace all issues, but through conscientious networking, acknowledgement and openness about internal power plays, AWID is a visible mover in relation to the global women's rights agenda. It effectively provides genuine space for the women's movement, overlapping with but in contradistinction to the alternative fora set up in connection with UN conferences.

Other spaces are being built by the Feminist Dialogues internationally and other regional Feminist Forums. These forums have a strong regional basis but many of the women coming together in the regional forums have met through transnational processes. Their agendas reflect and build on regional ones while often making linkages with the global agendas. The challenge will be both to acknowledge differences within and among regions and to translate the commonalities across the regions without falling into the trap of diminishing specificities both of the issues and of the moment in which the coming together transnationally is important.

In Latin America for many years Fiestas have been held that have gathered together Latin American feminists. The results of these collective gatherings translated very evidently in transnational forums particularly around body politics. The Latin Americans led the work on the Beijing +10 statement and they are a strong force in the WSF context. Their collective work inspires many and shows the importance of maintaining feminist spaces and autonomous initiatives.

A much newer initiative is the African Feminist Forum (AFF), first held in November 2006. This proved a very exciting and innovative feminist event not only for the African women who attended but also for those within the transnational movement.[19] The 'Charter of Feminist Principles for African Feminists' that came out of the meeting offers an important statement on how to build collective action with a responsible use of power and a commitment to one's own growth, trust, respect, support and constructive criticism, as well as a celebra-

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19   See http://www.africafeministforum.org

Celebrating feminism

tion of feminism with fun and joy. It is a charter on how to build movements, defining feminist ethics and processes as well as ways of leadership built on specific African issues and struggles.

A European Feminist Forum (EFF) has also been established in order to bring together feminists from vastly different experiences in Europe to reenergise a feminist women's movement in Europe. The EFF is beginning on the ground with affinity groups, building up to a face-to-face meeting in 2008.

It is important to recognise the tensions and contradictions within these spaces, also within Internet. There are tensions between those active at the local level and those that operate in the international arena. Inevitably, the best-placed and most able people and institutions dominate. Although the aim is to be as inclusive as possible, there is also the need to be able to scrutinise who is an ally and who is not. This tends to depend on the level of trust built up over time so that a total outsider to the key networks would not be able to self-select in this process. Those who can speak with and connect to others will more easily gain acceptance and trust within the movement.

This means it is crucial to build up ways of renewing feminist movements and introducing new actors. Institutes for training young women feminists have emerged as one dynamic innovation for renewal of feminist analysis and practice through multi-generational discourse and for gaining entry for new actors.[20]

Within these spaces critical strategies can be considered. For example, the debate around sexualities and fundamentalisms continues to shift as new experiences inform women's struggles at different ages and within different cultures. Feminists continue to need safe spaces to discuss these issues frankly and without fear of subversions that put some feminists in danger.

Closely connected with effective meeting spaces are the challenges of language. To effectively include women from all kinds of backgrounds and areas, tolerance and trust must be linked to an acceptance of difference and the problems of language. English continues to dominate in transnational feminist discussions, so that those with English often assume leadership. Though this problem is recognised the expense of translation makes this a long-term concern. One proposal is to start encouraging young feminists to learn to translate or at

20 DAWN and CWGL now have annual meetings of training institutes for young women. AWID holds a meeting of a young women's institute just before their global meetings.

least speak other languages. For many this is critical if a transnational movement is to continue.

Linking up and forming alliances

There is a need for much more thought and strategy on how feminists move from their ideologically diverse 'epistemological community' to form alliances with other social movements and if it is important and necessary at strategic moments to bring others into feminists' spaces to dialogue and debate intersections between different movements' agendas.

Transnational feminists are clearly aware of this need, as they fight within the hegemonic democratic frameworks to overcome systems of exclusion of women from the public/political space. While retaining autonomy, feminists need to negotiate alliances on a number of critical issues ranging from hard macro-economic issues of finance, trade and economic development to labour, environment, peace and human rights.

To return to my core interest in body politics it is, for example, important to understand how the different facets of body politics inform the broader social, political and economic discourse of global 'development'. Feminists working with others on technologies, for example, need to confront the promises and traps offered by technology and science, not the least biotechnology. Feminists need to bring out how poor women's bodies and 'disabled' bodies have become the battleground for many bioethical and genetic issues, especially around assisted reproduction, the implications of nanotechnologies, disabilities and trafficking in body parts.

Feminists working with others on technologies, for example, need to confront the promises and traps offered by technology and science, not the least biotechnology

These are complex processes, and within them there are many contradictions and many power plays. Knowledge about the different realities on the margins and the centre are crucial, and constant dialogue, debate and openness to contradictions in the struggle are necessary in order to move forward. This means essentially recording her stories (that is, focuses on women's actions in the past as opposed to the traditional male bias of 'his'stories), and building up knowledge that is recognised and valued from within and outside the feminist movement. This means feminists will need to work more outside safe feminist spaces, armed with collective knowledge that can be translated into other social movement spaces. Feminists need to investigate the questions that other movements ask of them. So that when those earlier questions I posed are asked – 'What has reproductive rights got to do with trade?' 'Finance for development and sexual rights – how are
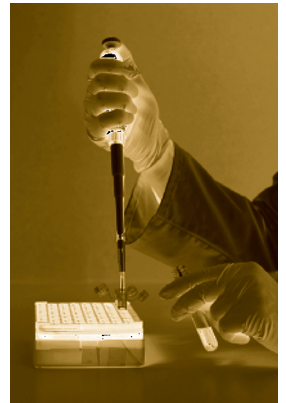
these connected?' 'Globalisation and violence against women – how are they part of the social movement agenda?' – they can be answered and understood, and subsequently agendas are changed.

Engaging in place-based struggles

Linked to these negotiations with other movements is how the global women's rights movements reflect 'place-based' struggles of women in their communities and localities around their reproductive and sexual health, livelihood, home and rights. This is what I and others refer to as the politics of place.[21]

The women and the politics of place (WPP) framework is based on a collective analysis of political movements (women's movements and women working in economic and social justice movements, including those active in the World Social Forum processes). WPP documents how women understand place in multiple ways as their body, home, local environs and community, the places which women are motivated to defend, define and own politically.

WPP challenges the assumption that women's rights are solely about women as victims of social and economic inequalities and issues, violence against women and sexual discrimination, and so on. By bringing to the fore women's place-based struggles, WPP challenges what we may call 'globalocentric' frameworks. The agents of transformation in these dominant narratives are markets, corporations, the big governments of the Global North, the global economy, financial capital and new technologies. These are indeed real forces transforming the world. In these globalocentric perspectives there is little that people in localities can do. In the conventional form of market-driven globalisation, places, communities and regions have to adapt or perish. The strategies of local and regional development must be devised with the aim of integrating into the global economy according to this or that comparative advantage. Given worldwide circumstances of unequal power, this often means that in order to find their 'competitive niche', places and communities are forced to accept integration into an exploitative global economic system that affects women and their bodies, community livelihoods and the environment in often virulent and unseen ways.

WPP asks that we see anew the multiple forms that political struggles around the body, environment and economy take on today, particularly those that challenge neoliberal globalisation. Place-based strug-

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21 See Harcourt and Escobar, 2005.

gles reveal that people do not act as victims but rather as conscious agents that own the integrity of their lived bodily conditions (including health, sexuality, the right to rest, and so on) and their environments, and act as economic subjects through practices that are often quite different from the mainstream. There are many thousands of women's networks that have entered into diverse international agenda-setting arenas from their own regional, local and place-based perspectives and which, in various self-defined ways, are engaging in political and social transformation that the WPP seeks to describe. They come from environmental, economic, health, alternative economic and rights-based movements.

Fluidity through networking, resistances, innovations and mobilising around global events has limits, and it is clear that individuals often engage in many different political strategies, of which their contribution to the global women's rights movements is just a part.[22] This is where a more nuanced sense of politics is required. As long as one is aware of how power is operating, through not just impositions and force, but also through processes and practices of what I have identified as biopolitics, redefining and resisting bureaucratic negotiations in the UN, entering in the power plays of hierarchical decision-making processes, then it is possible strategically to use sites of power through engagement in order to change from within. But essentially the transnational movement has to be linked closely to 'place', otherwise it loses meaning on the ground.

From experiences in Papua New Guinea, Eastern Africa, Pakistan, the Dominican Republic, the Colombian Pacific, Canada, India, South East Asia, the United States, Finland, Mexico, Europe, Palestine and the Middle East, WPP shows how women in their various struggles are defending, transforming, redefining, and recreating place in locations where their journeys have taken them. In a globalised world, place can be experienced in many different ways: in a locality where people are born or to which they migrate; in the spaces where political negotiations are undertaken, such as in the UN; or in networks formed through cyberspace. The thesis of WPP is: as women are mobilising for change, they are creating a new form of politics. This type

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22 See Harcourt and Escobar (2005) for an exploration of some of these new forms of politics. The edited collection looks at the experiences of women's mobilisations around sexual and reproductive rights, land and community, contested economic terrains, rural and urban environments and global capital that highlights the interrelations between place, gender, politics and justice. The book is intended as a contribution to the analysis of political movements – women's movements and economic and social justice movements, including those evolving around the WSF processes.

of politics challenges dominant social, cultural and economic trends that are defining women's rights, access to resources, employment, and bodily security at regional, national and global levels.

Jeffrey Sachs

Analytically, WPP exposes how patriarchal institutions disempower women, as well as men who are not dominant within the system. This disempowerment includes established academic frameworks (for instance, medical science, mainstream economics, and studies on globalisation and empire). Traditional academic analysis and the policy that is often advised by prominent academics (take the role of Jeffrey Sachs as one extreme example) can fail to highlight women's positions. It neglects their struggles in different communities and identities, including their fight against definitions of self and behaviour defined by dominant patriarchal social, cultural and sexual norms. Nor does most mainstream analysis take into account the institutionalised discrimination in mainstream politics. Such analysis thus obscures, even reinforces, the disempowerment of women.

Patriarchy varies from place to place, but the unequal relations of power between men and women, as well as among women and among men, are always present. In focusing on the stories of women in place-based movements who are resisting expressions of patriarchy and economic globalisation, WPP aims to show how women engage creatively with globalisation in many ways. There are many thousands of women's networks that have entered into diverse international agenda-setting arenas from their own regional, local and place-based perspectives and which, in various self-defined ways, are engaging in political and social transformation. Their activities suggest a way of understanding politics to include projects that are embedded, contextualised and localised, but also linked and networked.

The place-based connections between the local and the global are central to the nexus of gender, environment and conflict that inform international women's rights networks such as WEDO, DAWN and AWID. Working with women at the community level who have gained the most experience – often at great cost – of the multiple effects of gender discrimination, poverty, environmental damage and conflict, these transnational networks seek to build on and document their experience on the ground and promote an alternative approach to the growing majority of environment-related conflicts that recognises the central role of women at the local level in conflict prevention, resolution and reconstruction.

Shifting relations between women in the Global North and the Global South

Transnational feminism is in many ways being led by women from the South, both in terms of organisations and in terms of positioning of the issues. One could argue that this is an important reversal of mainstream hierarchies; however, I see the need for a revisiting of some of our assumed placements of women, and thinking anew about the divides. In particular the whole issue of migrant and indigenous women is emerging as an important issue in the North and the South. Globalisation is asymmetrical in its privileging; it is not always geographical place that determines access to power and privilege. Europe is going through major changes as it expands, creating different and uneven positions among women who come from very different economic, cultural and historical places. To be a feminist in the USA is not the same as being a feminist in Canada or Australasia; these types of differences need to be understood as part of transnational difference. Economic insecurity and racial discrimination cut across all societies, North and South. One problem to resolve is how to engage Northern feminists in the transnational feminist debate that is happening in their own place – that is, to engage with migrant and indigenous women. At the same time to understand what are the specific responsibilities of feminists in the North as citizens of particular places with access to more money and power – though sometimes it seems that Southern feminists have more access and strength than their Northern counterparts. These perceptions of difference need to be honestly argued out and heard as part of the transnational strategy, with no one place necessarily privileged.

External challenges: looking ahead – feminism in tomorrow's world?

Feminists also engage in the macro-battles that are happening today. Feminists are grappling with ways to understand and change profound inequalities within the home or community in starkly violent and poor urban and rural environments. Feminists are looking for a renewal of thinking about what institutions, what forms of governance, what forms of democracy, what forms of science are needed. Such visions are based on the knowledge that place-based groups are building up about how to negotiate (gender, racial, economic, cultural) differences and the sense of the other.

Thinking about 'what next' is a complex undertaking, partly because of the different types of knowledges informing the debate, all of which have their own truths and understanding of political reality, and all of which are grounded in a vastly complex and changing

social, economic and political world. A major challenge in relation to body politics is to understand the institutional, ethical, political, scientific, economic and social practices of biotechnologies. Feminists need to look more closely at the political and ethical and cultural consequences of biotechnology. For example, how and where does biotechnological research fit into questions of addressing gendered social determinants for health such as sound nutrition, exercise, healthier work environments and better housing and by reducing poverty and violence which affect the overall wellbeing of so many women? Are there creative and effective ways to develop critical public awareness about the political economic and scientific drivers of biotechnology research and its applications? How do we debate the alternatives? What are the responsibilities of the North towards poor women and men in the South who are bearing the brunt of the unregulated and unethical practices of biotechnological research and industry? Is it possible to articulate a transnational feminist analysis on the nexus between new technologies and the global economy, environment and body politics?

A critique of the new biotechnologies is essential as they are conditioning the quality of life in medicine, agriculture, animal husbandry, zootechnical production, pharmaceutical industry, energy and environment, in short permeating all areas of our lives. Biotechnology covers scientific disciplines, industrial research and production, and, in addition, it is a social concept with a strong public policy concern – one in which women and feminists need to engage. We have to ensure that the conception, development, dissemination and application of biotechnologies meet ethical democratic standards that ensure gender equality. In order to do so it is important to see the economic interests at play, national interests as well as the private interests of medical and pharmaceutical technologies, and to be conscious of possible gender inequalities and gaps in how and where biotechnological research is happening. Too often that analysis does not take on board a feminist approach. We need more information on the effects of biotechnologies on women's bodies and our environment as well as a broader global responsibility on the part of feminists to engage in framing the debate.

There are examples of how feminists are engaging in productive relationships with science that hopefully will produce new feminist thinking and theorising on biotechnology, building on the work of

What are the responsibilities of the North towards poor women and men in the South who are bearing the brunt of the unregulated and unethical practices of biotechnological research and industry?

Donna Haraway[23] and Rachel Carson[24], two feminist thinkers who
have led the way in productive, particularly in the North, feminist
engagement with biology, medical science and technology.[25] Major
concerns are raised around how to monitor the research, issues of
transparency, commercialisation, ethical review boards and how to
nurture a critical consciousness.

For example, some feminists looking at the impact of biotechnology
on disability have argued that we need to challenge the concept of
progress and improvement within science and medical science, which
informs biotechnological research and modern society, by question-
ing stereotypes of perfection. In defence of difference they propose
a vision based on who we are rather than a vision of what we might
be (embedded within a particular concept of what is perfect). They
question assumptions about perfection and women's bodies in relation
to genetic and other invasive technologies, and the expanding market
of research into new biotechnologies, in the pursuit of a better life
through technical fixes that could fundamentally and permanently
change humanity and the environment.

The new areas of 'human performance enhancement' and 'trans-
humanism' point to scenarios of a dramatically different future
where traits and human capabilities can be 'improved' and perfected
through technology. To hear and see better than 'normal', increase
memory and cognitive capacity, reduce the need for sleep, and ma-
nipulate such things as nervousness and past traumas can be appeal-
ing to many. With aggressive commercialisation and an increasingly
competitive society many may feel obliged to 'enhance' themselves.
For women, these scenarios are of particular concern given the cul-
tural pressure already not to be satisfied by their body shape and size.
'Enhancement' directly relate to body politics and issues around bio-
logical reproduction. There will not only be huge ethical dilemmas
around whether to manipulate one's body further through these new
technologies, but also whether to allow or force this onto one's chil-
dren. We can imagine some frightening scenarios for future parents:
Should one stay 'natural' and lose out or join the enhancement trend?
Is it 'fair' to prevent one's children from succeeding as well in school
as their enhanced friends and schoolmates?

For women, these scenarios
are of particular concern
given the cultural pressure
already not to be satisfied by
their body shape and size

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23 See Haraway, 1991.

24 See Carson, 1962.

25 See Sara Franklin's book, *Dolly Mixtures*, published in May 2007, which presents
an exciting study of how to understand the links between capital, technology and
health through a historical and anthropological study of Dolly the first cloned sheep.

At the forefront of feminist responses to biotechnology are women activist groups that are concerned about how the rapid changes brought by the new science and technologies are affecting gender equality and women's rights. They ask questions about increasingly proficient genetic technology as well as the underlying racism and eugenics in some of these practices. They question the drive behind the industrial and medical interest in these technologies as well as querying the 'choice mantra' leading to genetic manipulation, designer babies and so forth, as well as the 'virtual holocaust of girls' in Asia where access to sonograms and amniocentesis has allowed families to carry male foetuses to term and terminate female ones.

The use of genetically modified (GM) food is another contested area for women in environment movements in both the North and South. For the Northern consumers the blurred lines between medicine and food, with the use of terms like functional foods and neutraceuticals, enticing food processors, agbiotech firms and drug companies to merge complementary interests in food, biotechnology and pharmaceuticals, are of increasing concern.

In the context of the South, feminist advocates are raising concerns about genetically transformed food and agricultural systems and the long-term effects on environment, biodiversity and human health as well as the benefits to women subsistence farmers in developing countries. They point out how new high yield crops often displace subsistence farms, putting their livelihoods and their families in jeopardy. With the industrialisation of agriculture more women perform the hard labour in the fields and are exposed to chemicals and pesticides specific to GM crops. The gendered implications of their livelihoods and health issues are impacting on poor women's health, food and security rights. Feminist advocates argue that such genetic engineering is not easing the food insecurity of poor communities but rather helping prosperous larger-scale farmers, harming natural environments and magnifying hunger by shifting to cash crops. They propose, for example, that land reform would do more to alleviate hunger.

Looking ahead, there are several areas of technology development with profound implications for women. Already, major concerns are arising on the possible, or even likely, toxicity of nanoparticles and their impact on both health and the environment. A rapidly expanding area of converging technologies is that of nano-biotechnology (exploring the merging of living and non-living on the nano scale), an area of intense investment and research and development. Closely related to nano-biotechnology is the new field of 'synthetic biology',

a term only coined a couple of years ago, which deals with the design and redesign of life forms with a much more sophisticated approach than past biotechnologies. The idea is to view life as similar to Lego, where building blocks ('biobricks') can be shuffled around and DNA synthesised according to new, 'better' designs. Already patent claims have been filed for the first construction of life forms from scratch – that is, creation of life. Advocates are hailing the promises of new, constructed photosynthesising and CO_2-absorbing bacteria as solutions to the climate crisis, while others see incredibly dangerous possibilities for disturbing ecosystems. Of course this new technology will have dramatic implications for women both directly and indirectly. Women's movements need to begin to grasp the possible implications of these new technologies, and bring feminist perspectives into these very new debates.

A specific problem for feminist advocates' entry into biotechnology debates is the perceived level of expertise and specialisation that is required, or even 'technophobia'. The ability to dialogue with women scientists who are engaged in the knowledge production of biotechnologies is therefore very important as we map out 'what next'.
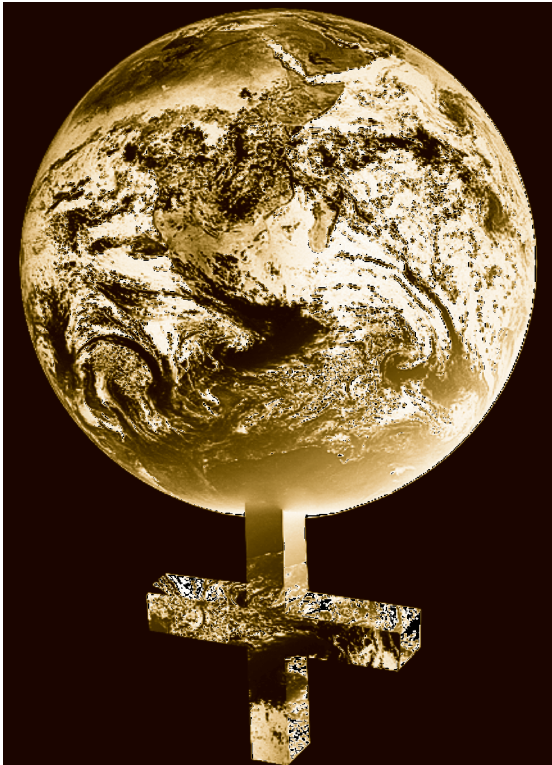
Making the personal political

Redefining democracy is a key domain where feminists can continue to build new forms of politics and transform power relations. In engaging in redefinitions of democracy feminists can change patriarchal power relations to processes of shared authority in all ways of life. In other words, within and outside the movement feminists need to bring a feminist ethics into other political movements through the praxis of micro-practices that inform our bodily lives. Although this may sound very abstract here, it is essentially about making the personal political. Such a transformation is happening, but it needs to be deepened and strengthened in the face of opposite trends (fundamentalisms, or cultural, political and economic violence). This needs to happen on different levels, beginning with the family and moving through all social relations as we learn how to challenge the complex gendered authority in the family, workplace, community and broader public. Feminists have a very strong history and culture in making the personal political, from providing space to explore private emotions as part of the feminist struggle (consciousness-raising groups, capacity-building for young feminists) to naming private oppression in public (rape, domestic violence, and so on). It is a very powerful strategy that needs to be documented and celebrated as a way to break down vertical hierarchies that cultivate competition and silence as strong virtues. There is much to learn from feminist ways of organising for other social movements who are looking for alternative ways to organise the break down of dominant hierarchies.

Lastly, I wonder very personally 'what next' for me, and in particular for my two daughters aged 12 and eight. As European, able, white and educated they (like me) should be in a privileged position to learn and take up responsibility in challenging inequities but they are also in the privileged position to ignore the gaping inequalities, the techno fixes, the escalating environmental destruction, the growing violations and oppressions. How can we act honestly given our immediate environs of a big Western city (Rome)? Our daily lives are shaped by ecologically careless wealth, consumerism, supermarkets, advertising and unthinking Eurocentrism.

Probably the toughest question of all is how to try and build political will and reach the privileged minority so that they make the connections. The minority rich need to see that the majority, poor oppressed and exploited, are struggling to live and survive the oppressive economic and technological processes that provide the comforts mostly for those who had the luck to be born in a particular place. How do we break through global complacency and greed? Transnational fem-

inism provides one entry point. At least in coming to grips with the differences among women's experiences and politics there is also in the recognition of the similarities around body politics and the collective and individual struggle against the fear of rape, of sexual oppression, of violence against women, a shared sense of outrage and, in expressing that outrage, also hope. I recall the women's rally at the WSF in Nairobi January 2007, speaking out against fundamentalisms, the dances, songs, whistle blowing and chanting, and the numbers of men and women who joined us. It became a celebration of being women as much as anger at what was done to women. By acting with a sense of integrity and commitment to humanity, despite much personal and collective pain we will find ways to continue to transform current hierarchies of knowledge and power.

Abbreviations

APDC	Asia Pacific Development Centre
AWID	Association for Women's Rights in Development
CEE	Commonwealth of Independent States
CIS	Central and Eastern Europe
FD	Feminist Dialogues
DAWN	Development Alternatives for Women in a New Era
G8	Group of 8 industrialised countries
GCAP	Global Call for Action against Poverty
MDG	Millennium Development Goal
RAINBO	Research Action and Information Network for the Bodily Integrity of Women
SID	Society for International Development
UN	United Nations
UNCED	United National Conference on Environment and Development
UNDP	United Nations Development Programme
UNDPI	United Nations Department of Public Information
US	United States
WEDO	Women's Environment and Development Organization
WID	Women in Development
WIDE	Women in Development Europe
WICEJ	Women's International Coalition for Economic Justice
WPP	Women and the politics of place
WSF	World Social Forum
WTO	World Trade Organization

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what
next

This volume brings the Dag Hammarskjöld Foundation's *What Next* project to an end. Based on the Foundation's longstanding tradition and continued commitment to Another Development, it pursued the search for alternatives by re-thinking and thereby challenging dominant notions of development and progress. There are no easy answers to the many pressing challenges facing humanity. So much of the current debates and international negotiations – even those explicitly dealing with environment, development and global inequalities – are framed within certain constraints and limited by assumptions we seldom realise or question.

Beyond the obvious problems of hunger, environmental destruction and poverty there are many layers of challenges where 'solutions' may turn – or may already have turned – into new problems. We would do well to anticipate these potentially disastrous trajectories and pitfalls and look for alternative paths that can take us to a decent and sustainable future. This requires unconventional thinking, and the consideration of a broad range of alternatives – a strong case for pluralism. This is what this final What Next volume is all about.

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