Politics, ethics and techno-optimism: transdisciplinary thoughts on the transition to sustainability

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Unsustainability

The transition to sustainability is better viewed as a transition from unsustainability

Putting front and centre our unsustainable present and existing trends

Like Freud's view of psychoanalysis as 'transforming psychosis into ordinary unhappiness', the task at hand is to make our carbon-dependent, climate-changing, over-consuming societies and ways of life LESS unsustainability as a necessary step towards achieving sustainability


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The Politics of Actually Existing Unsustainability

Human Flourishing in a Climate-Changed, Carbon-Constrained World

John Barry

Techno-optimism – greening 'business as usual'

Dominant response is to find a technological fix/solution to enable ways of life, social orders etc to continue

The technological 'greening' or 'ecologising' of carbon-fuelled, consumer capitalism within liberal-representative democracy

'Ecological modernisation' and 'green growth', 'green capitalism'

Techno-optimism as myth

The myth of Achilles Lance – a spear that could heal the wounds it inflicted

Modern version – technologically caused ecological harm can be rectified by more technological innovation

This mythic character of technology also central to another modern myth…that of endless economic growth and consumption

Problems with techno-optimism

Not always rationally grounded – dangers of arrogance and assumptions of agency

That is, they may not work

Sheer scale and speed of the transitions we have to make mean technology-optimism often shades into science fiction in terms of some of the technological claims made or needed for continuing and intensifying carbon business as usual and meet climate change targets for example

I = P x A x T formula and the Rebound Effect

I = environmental impact P = population growth

A = per capita affluence T = tech. efficiency of production

If we wish to reduce I, and assuming population increases to 9 billion by 2050, and assuming compound economic growth rate of 3% p.a., then….T will have to be 90% less than it is now

Production will have to be **90% more efficient** in terms of reducing energy and resources

There is no evidence that this is happening or can happen – 'myth' of decoupling (Jackson, 2009).

'Rebound effect' /Jevons Paradox

Increase in resource/energy efficiency in production swamped by increases in consumption e.g. of cars and fuel efficiency

Issue is scale of consumption and production not just efficiency

Techno-fixes… Addressing effects not causes

Pills for obesity rather than looking at the complex genetic, social, cultural, psychological root causes for obesity

The problem of growing hunger in the world and food insecurity – may be more due to political/institutional and economic issues and therefore these need to be examined alongside or indeed before the rush for technological solutions such as genetic engineering or intensive large – scale chemical –industrial agriculture

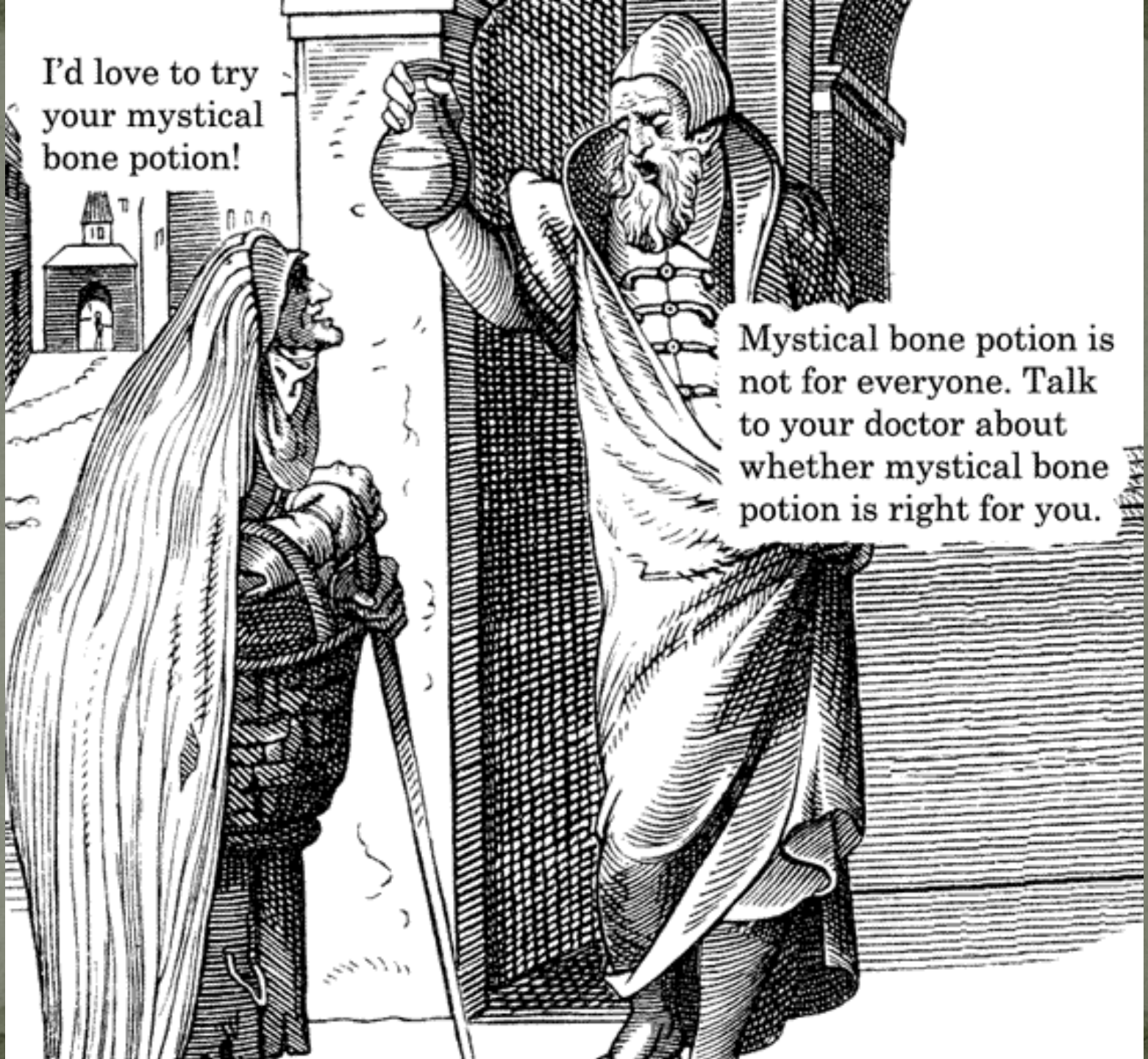
Techno-fixes allow one to bypass/ignore these political, ethical, cultural and social dimensions

Problems ….continued

NOT proposing some luddite rejection of technology or technological innovation as a necessary element of the transition from unsustainability

But…we could make a good start on this transition with our existing technologies, reduce our energy and resource demands on ecosystems and the planet

That is we need to keep in mind that we may not need all the technological innovation conventionally seen as ‘necessary’ (nuclear power, CCS, GM crops etc.)


I'd love to try your mystical bone potion!
Mystical bone potion is not for everyone. Talk to your doctor about whether mystical bone potion is right for you.

"The most alarming sign of the state of our society now is that our leaders have the courage to sacrifice the lives of young people in war but not the courage to tell us that we must be less greedy and less wasteful" (Wendell Berry, in Astyk, 2008: 19)

Technological approaches alone, without political and ethical change/context, offer depoliticised and de-ethicised responses to 'actually existing unsustainability' and narrow therefore pathways to sustainability


AÇITATE
EDUCATE
ORGANISE

New objective/s for technological innovation - beyond orthodox economic growth…

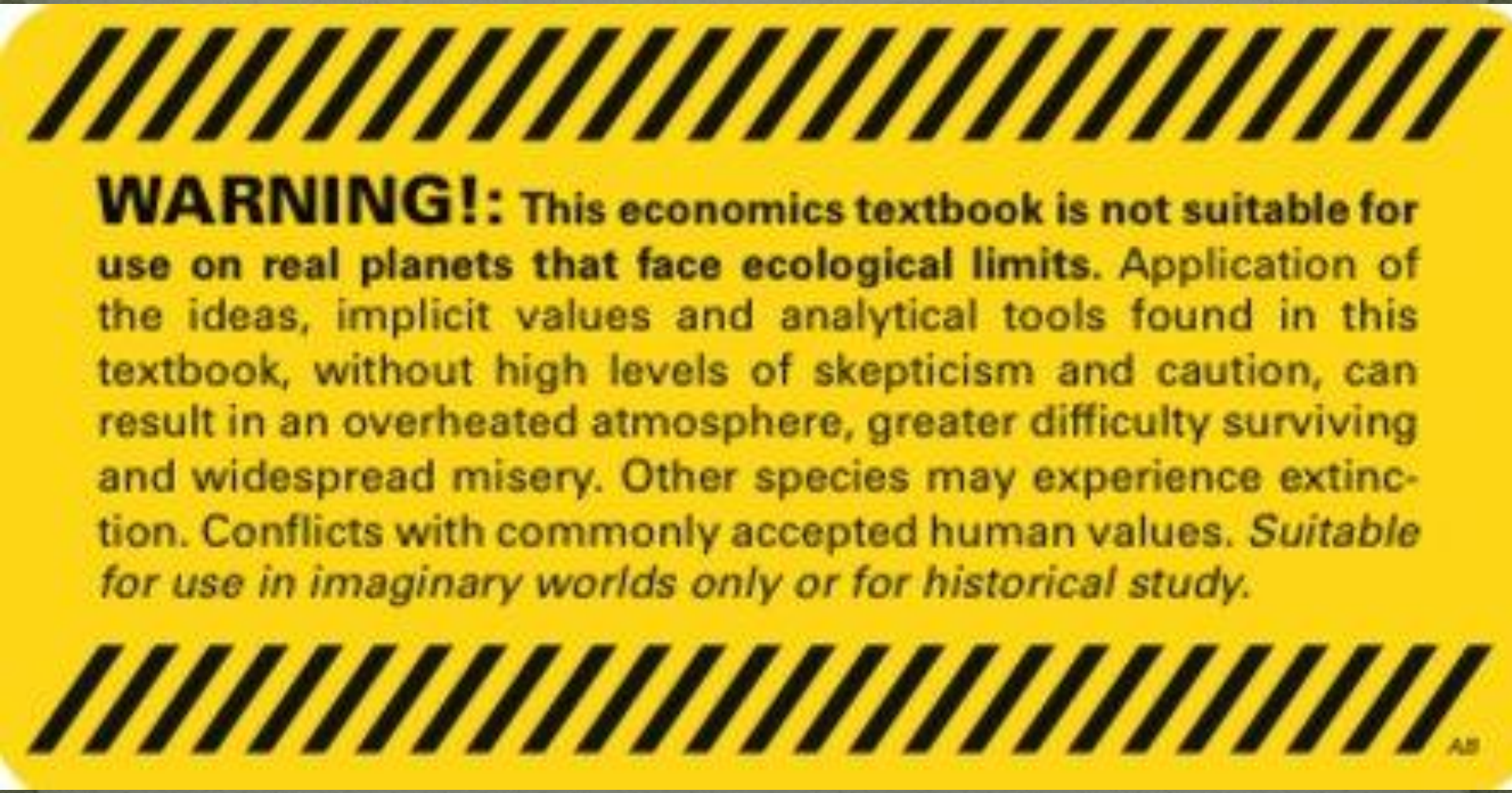
Technologically facilitated economic growth – social change without democratic politics (Ulrich Beck)

Overarching aim and motivation behind techno-optimism is to enable the achievement of orthodox, undifferentiated economic growth

As opposed to achieving

- **high levels of human wellbeing;**
- **a low carbon , resource use;**
- **low socio-economic inequalities**

Beyond orthodox economics



Politics…visions of a sustainable society

The transition to a sustainable society is a transition to a **different type of society**…as opposed to the current one with some energy saving/green technological improvements

That is, to achieve sustainability (itself a dynamic, complex always provisional and revisable process, rather than some 'end state') is an inherently political, ethical as well as technological process

Whereas technological orientated approaches to un/sustainability are largely apolitical and depolitical

Danger of technological approaches delaying transition by enabling the continuation of long-term unsustainable behaviour , trends and expectations,

Putting off difficult political, transformative decisions

Ethics… equality

Techno-optimism – bypassing claims of distributive injustice and growing socio-economic inequalities economic growth manages but does not reduce socio-economic inequalities

In fact under capitalist conditions, economic growth requires the reproduction of inequality

Technological approaches usually offer 'supply side solutions' – increase productivity and quantity….but in so doing does not focus on issues of distribution or demand

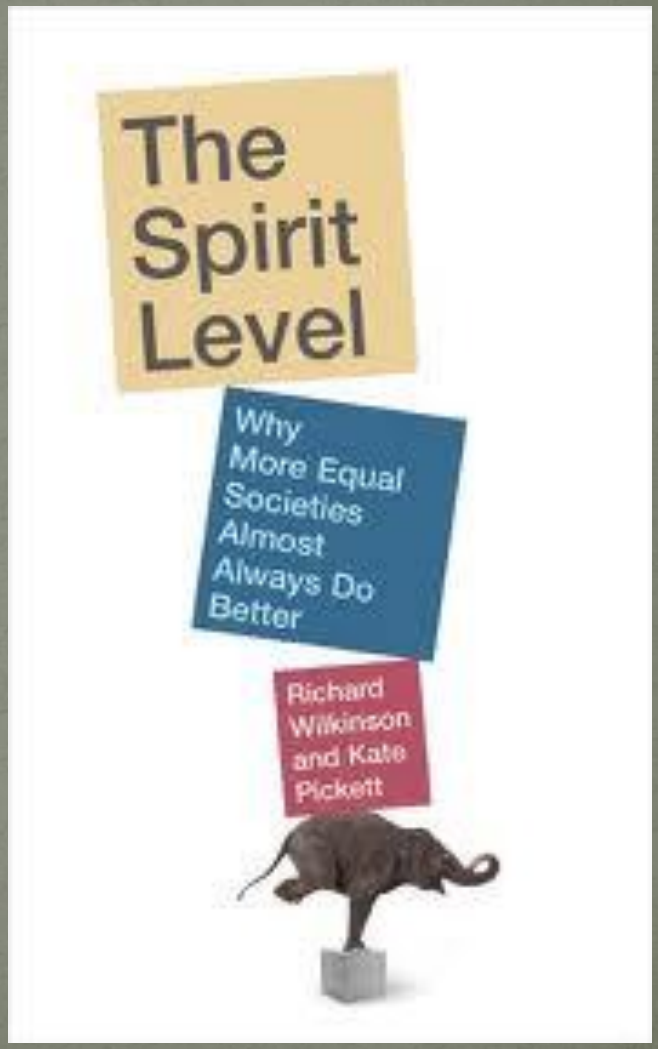
Is the problem (energy, food, urban development, housing etc) one of insufficient supply or excess demand or due to the unequal distribution of the good or resource in question?

If its excess demand or unequal distribution, then why not tackle that directly rather than using technologically-based economic growth?

Economic growth is a ***substitute for equality***

Economic growth under capitalism ***reproduces and requires inequality***

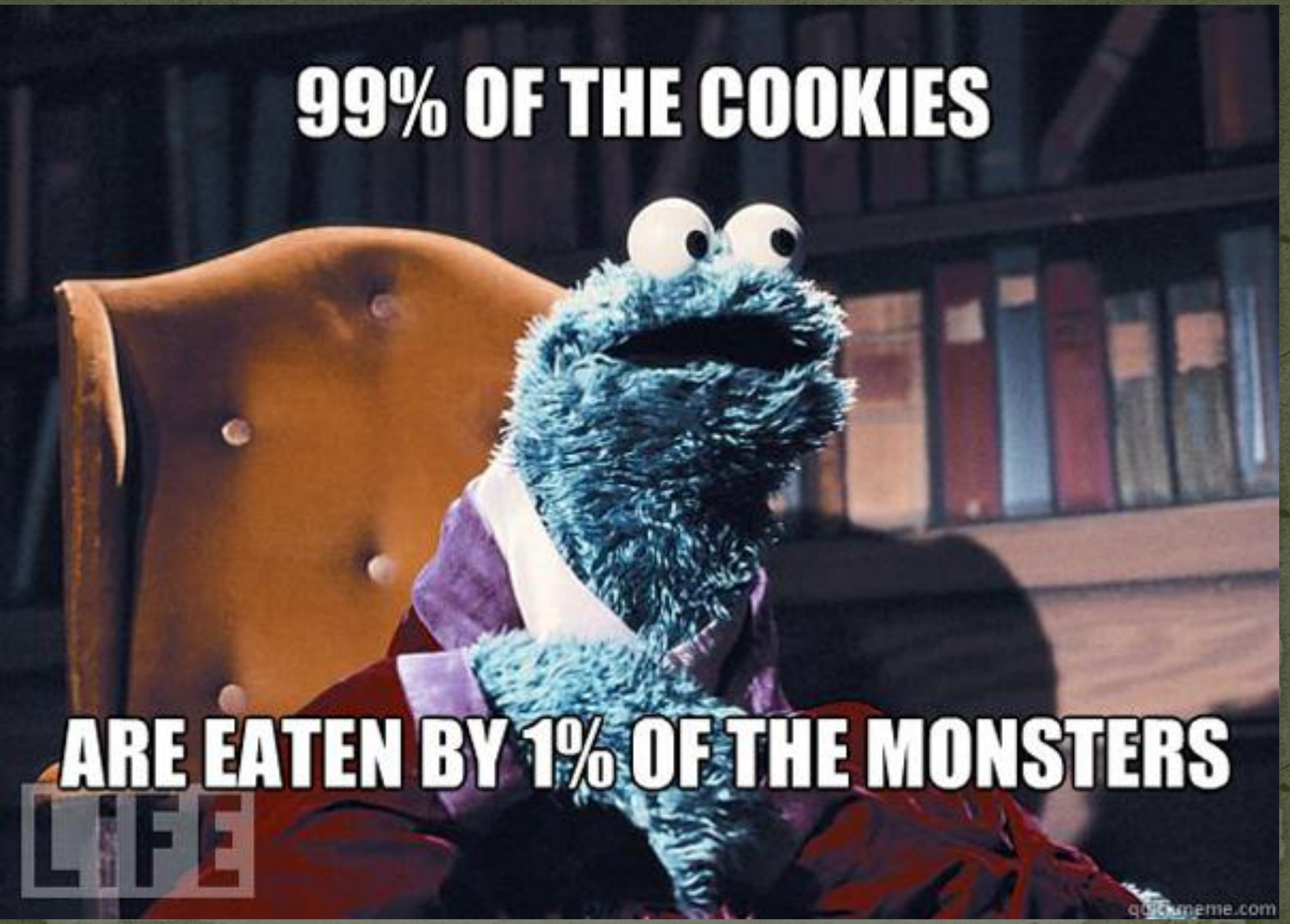
"Economic growth, for so long the great engine of progress, has, in the rich countries, largely finished its work. Not only have measures of wellbeing and happiness ceased to rise with economic growth but, as affluent societies have grown richer, there have been long-term rises in rates of anxiety, depression and numerous other social problems. *The populations of rich countries have got to the end of a long historical journey".* (Wilkinson and Pickett, 2009: 5-6; emphasis added)



Growth and inequality

We are addicted to growth because we are addicted to large inequalities in income and wealth. What about the poor? Let them eat growth! Better yet, let them feed on the hope of eating growth in the future!

[Herman Daly, 1991]


99% OF THE COOKIES
ARE EATEN BY 1% OF THE MONSTERS
LIFE

Beyond ‘win-win’ solutions

Political advantage (from status quo perspective) of standard techno-optimism and economic growth – views sustainability as a ‘win-win’ , no or minimal redistribution (Pareto optimality);

But what if the achievement of the social, economic and ecological dimensions of sustainability require redistribution, where some interests lose out (fossil fuel ones for example…including pension provision), i.e. Not ‘win-win’ but a political struggle

Power and struggle…

"Those who profess to favour freedom and yet depreciate agitation are men who want crops without plowing up the ground. They want rain without thunder and lightning…. **Power concedes nothing without a demand. It never has and never will".**

Frederick Douglas, freed slave and anti-slavery campaigner,

4th August 1857, ***North Star***.


Some of my best friends are poor.
AIRBRUSHED FOR CHANGE
Read our plan for change at

Thresholds and technology

What is the threshold beyond which technological innovation or further innovation within a specific field or area will perhaps undermine the goal of a transition to a low carbon, high quality of life, low socio-economic inequality sustainable society?

Technology has brought us many benefits and these must not be forgotten, but our fixation on only technological solutions and uncritical support for technological innovation ill serves the complex goal of the transition from unsustainability

What is the point beyond which some technological innovations undermines rather than adds to societal progress, which in thee 21st century is the transition from unsustainability ?

Gestures towards a political and democratic context for technological innovation-


MAKE
TEA
NOT
WAR

Reclaiming 'innovation'

Why is it the dominant understanding of innovation is technological and/or economic

When we will see policies for the transition from unsustainability focusing on 'social innovation'?

We need 'full spectrum innovation' not just technological innovation in the service of greening business as usual

Why are 'disruptive technologies' ok in the commercial sphere but not disruptive social or political innovations?

A world of possibilities within a recognition of planetary boundaries and ecological-energy limits

Use technology to reduce our footprint – to increase human flourishing , lower our carbon and resource footprint and reduce socio-economic inequalities

Democratising scientific and technological innovation

- Up streaming citizen and other user group involvement in the research process as opposed to dissemination and consultation at the end
- Post-normal science – extended peer review beyond the scientific community
- Increasing scientific/mathematical/statistical literacy and lay understanding of the peer review process, how science and technology develops
- More open source and less proprietary forms of patenting innovation – example of private versus public sequencing of the human genome

Conclusion: The importance of narrative

Transitions from unsustainability need to be expressed on positive storylines for this transition, but not necessarily 'win-win'....

Martin Luther King did not begin his famous speech with 'I have a nightmare'

And while I don't believe in the motivating power of negativity and pessimism (I'm not myself a pessimist...but may be a carrier!)

The end of the world as we know it...is not the end of the world

What sort of societies do we wish to create in the transition from unsustainability ?

Or as another beardy leftie politician once put it 'What is to be done' (Vladimir Lenin) as there is no 'automatic' transition mechanism away from unsustainability towards sustainability

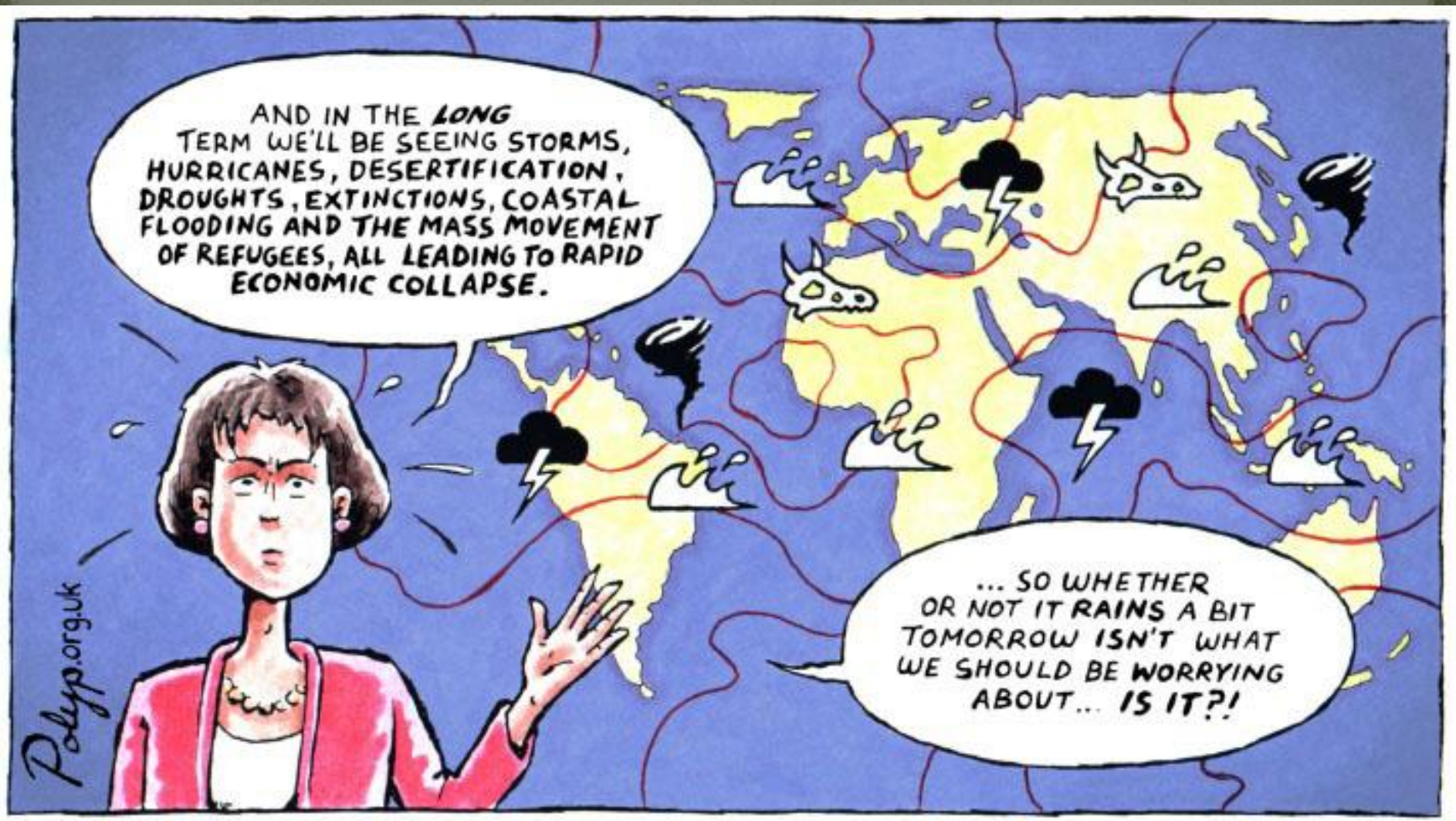
If FOX News was around in 32 C.E.

LIVE

FOX NEWS FOX NEWS

SOCIALIST HIPPIE EXECUTED

TX GOV.: "He got what he deserved."


AND IN THE LONG TERM WE'LL BE SEEING STORMS, HURRICANES, DESERTIFICATION, DROUGHTS, EXTINCTIONS, COASTAL FLOODING AND THE MASS MOVEMENT OF REFUGEES, ALL LEADING TO RAPID ECONOMIC COLLAPSE.
... SO WHETHER OR NOT IT RAINS A BIT TOMORROW ISN'T WHAT WE SHOULD BE WORRYING ABOUT... IS IT?!
Polyp.org.uk

'YOU'RE FIRED'

Mission led, ethically attuned and politically contextual technological innovation

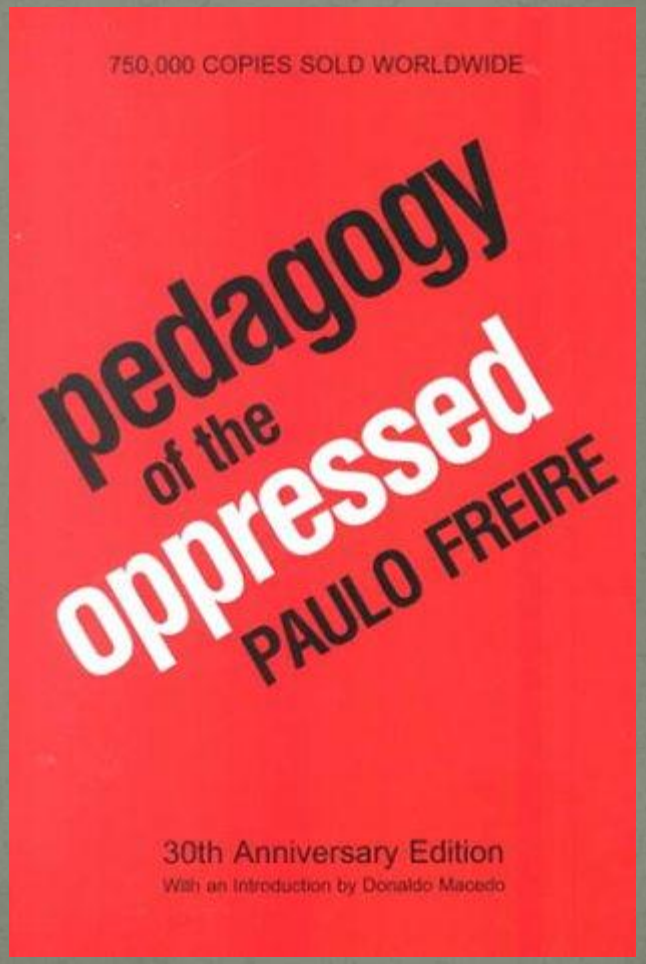
- A plea for humility and precaution – 'its better for a blind horse to be slow', St Thomas Aquinas
- Human-scale technology … But also larger scale infrastructural requirements
- Technology on 'tap not on top'

Post-normal science

- Technology and technological innovation are not political or ethical free/neutral issues
- Goal of technology and technological innovation, to make the world a better place, not increase profits or productivity per se
- More speculative and primary research
- Greater interdisciplinarity, collaboration needed
- Importance of spaces for such conversations to happen such as this conference
- Transdisciplinarity and moving outside the university/academy
- New aims such as 'sufficiency' rather than 'maximisation'

"Education either functions as an instrument that is used to facilitate the integration of the younger generation in to the logic of the present system and bring about conformity to it, or it becomes 'the practice of freedom' the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world."

Paulo Friere



"One could argue that, as a culture, we are addicted to technology for the purpose of providing illusory solutions to our problems, even if these problems are fundamentally social, psychological, or spiritual in nature. Since all addictions involve denial, it is possible that our collective 'techno-addiction' is one of the main reasons we are unwilling to critically question the negative aspects of technology in society and in our lives." (Heuseman and Heuseman, 2011: 221)

- What are the human interests behind technological innovation
- How is the world, other human beings, non-human beings etc revealed to us via technology?

- As Heidegger notes in his famous essay *On the Question of Technology*, "Technology is therefore no mere means. Technology is a way of revealing" (1977: 5)

Politics and struggle

"the oil and gas sector is by far the most heavily capitalized. What this suggests is that despite concerns over global warming and peak oil and questions about the overall sustainability of our current civilization order, investors continue to see a future shaped by the owners and directors of hydrocarbon energy" (DiMuzio, 2011: 379)

This issue, as with the broader transition from unsustainability, is not a technological issue, but a deeply political one

The politics of technology

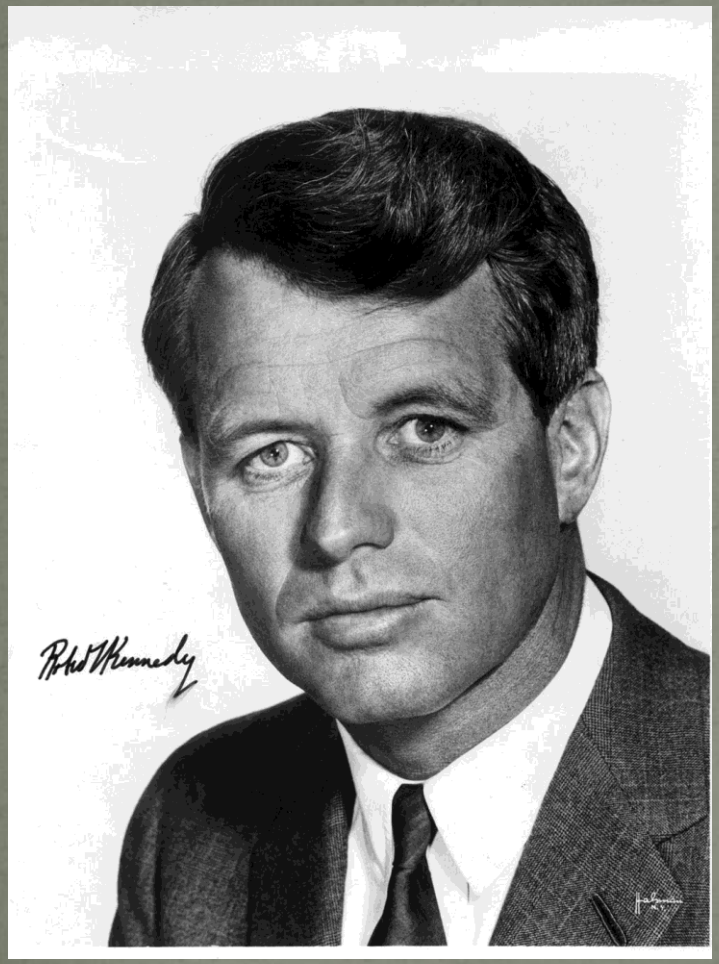
Who decides and how is it decided about what types of technological innovation society gets and uses?

The political economy of innovation favours large-scale, pro-system, commercially exploitable forms of technological innovation

Witness the radical reduction in funding for basic scientific research and the increasing commodification of scientific knowledge, even within the university

World Map by Aircraft Travel

More isn't always better…

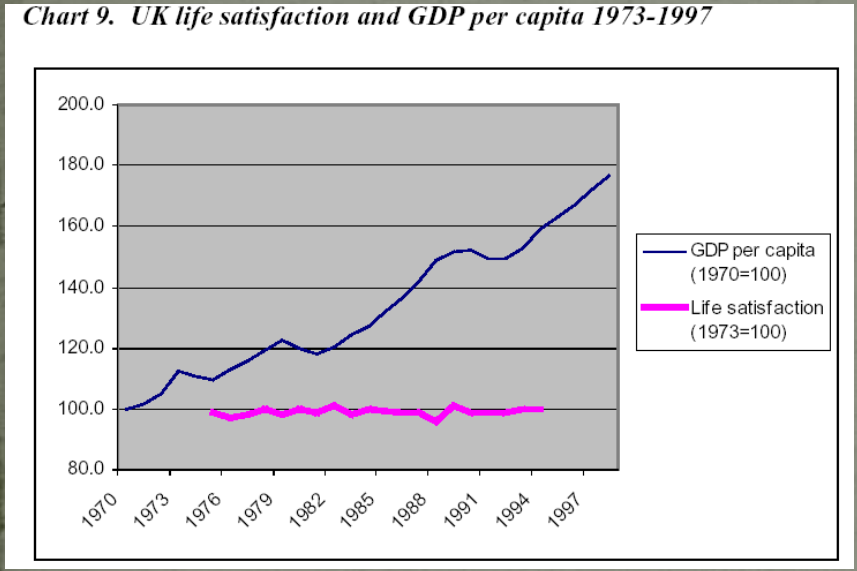


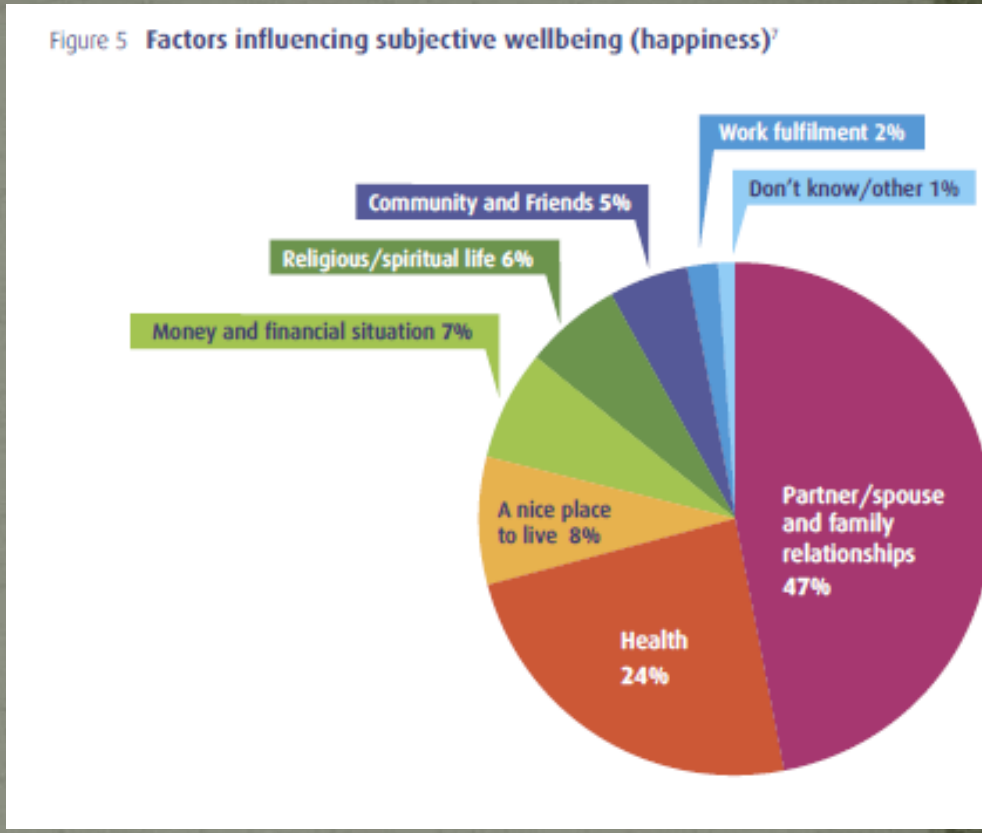
worth taking a bullet for?

'GDP measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything in short, except that which makes life worthwhile.

Senator Robert Kennedy
1968

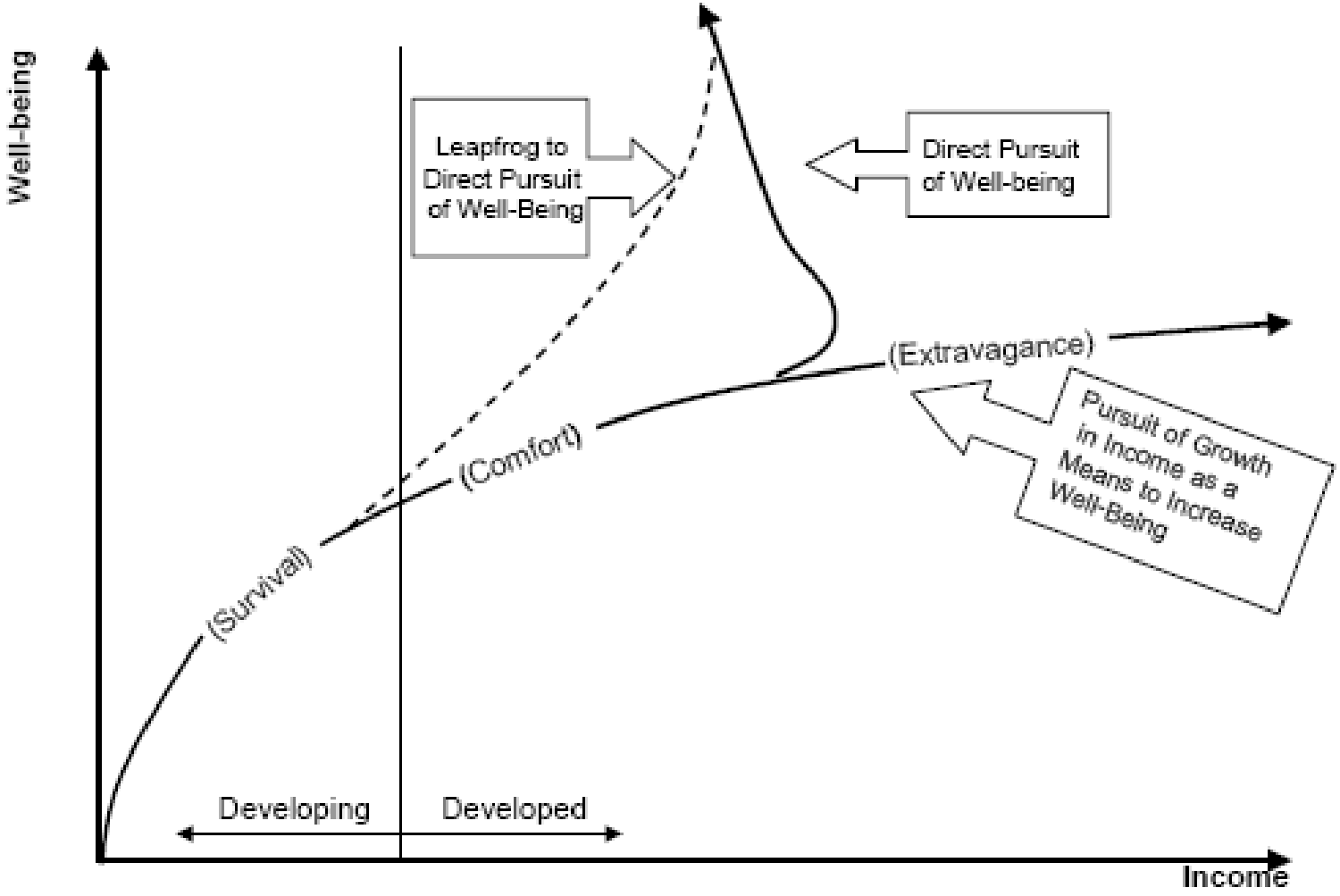
Well-being





Jackson, (2009), Prosperity without Progress, p. 31

Income and well-being…disruptive social innovation



Technology, ethics and resources

Food

Non-food

Proscribed food

Resource

Non-Resource

Proscribed resource