

Class#8

Alternative Indicators & An Emerging Worldview

Quote of the day

*« NOT A ERA OF
CHANGE BUT RATHER
A CHANGE OF ERA »*

Alternative Indicators

- ✓ **Limitations of Gross Domestic Product (GDP)**

- **Genuine Progress Indicator (GPI)**

- **The Human development Index**

- **The Happy planet Index**

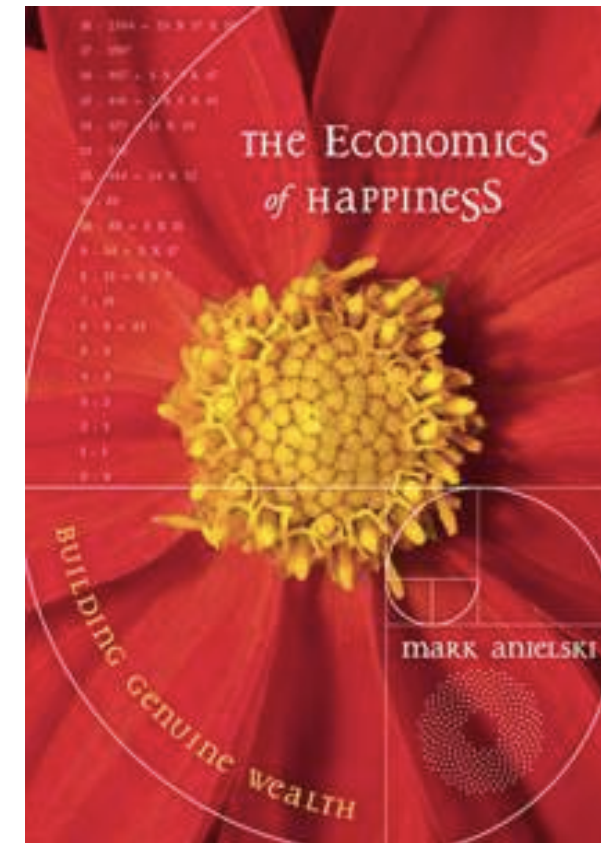
- **The Gross National Happiness**

- **Index of Sustainable Economic Welfare (ISEW)**

Alternative Indicators

5 Reasons Why a GPI Should Replace the GDP

- 1. The GDP only counts spending*
- 2. The GDP encourages layoffs*
- 3. The GDP celebrates disasters*
- 4. The GDP omits what matters most*
- 5. The GDP sets a bad example for businesses*



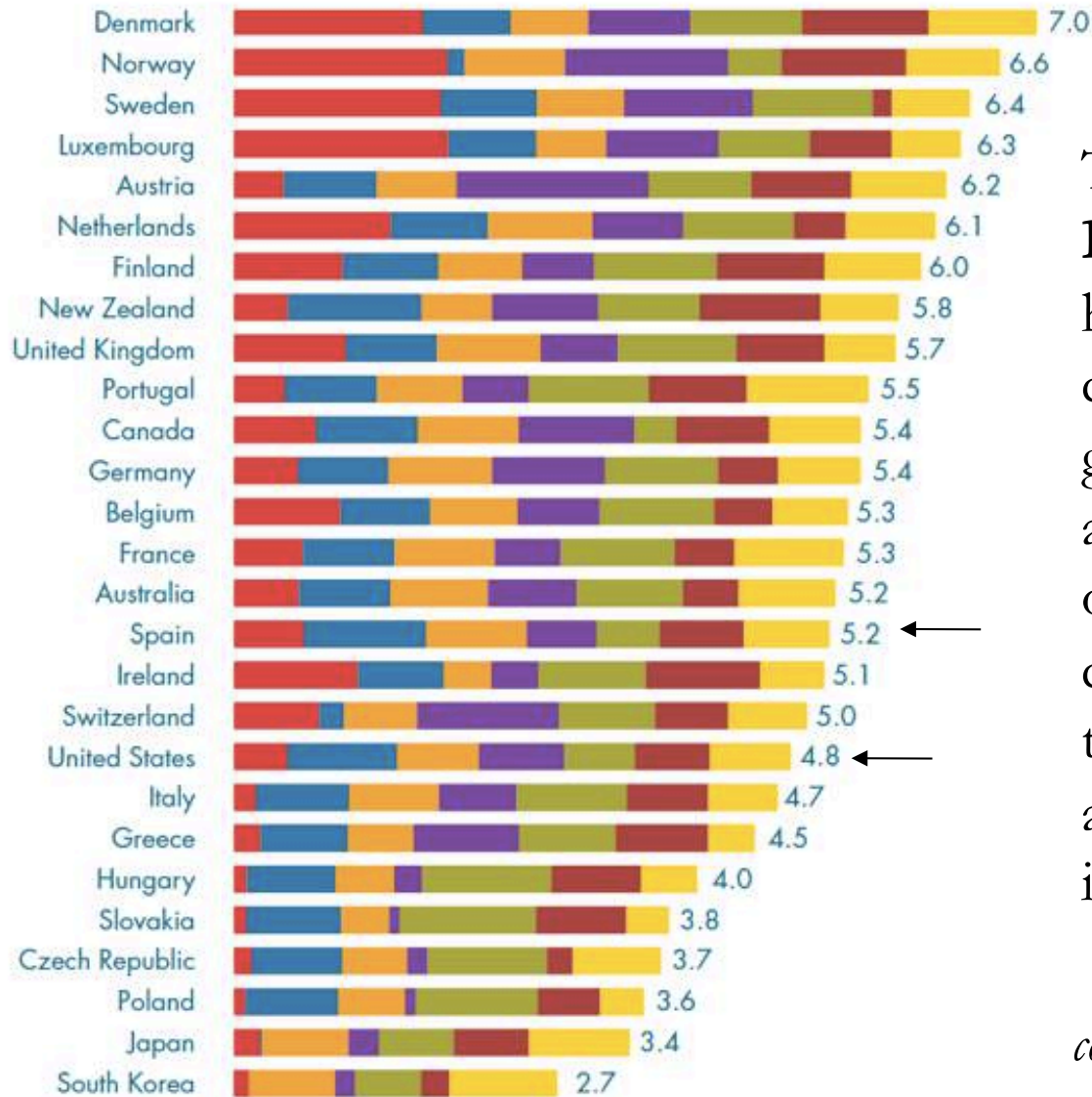
What the Genuine Progress Indicator counts that GDP doesn't ...

- Income distribution
- Public consumption expenditure
- Value of household and community work
- Costs of unemployment
- Costs of underemployment
- Costs of overwork
- Private defensive expenditure on health and education
- Services of public capital
- Costs of commuting
- Costs of transport accidents
- Costs of industrial accidents
- Costs of crime
- Costs of noise pollution
- Costs of irrigation water use
- Costs of urban water pollution
- Costs of air pollution
- Costs of land degradation
- Costs of loss of native forests
- Costs of depletion of non-renewable energy resources
- Costs of climate change
- Costs of ozone depletion
- Costs of problem gambling
- Value of advertising

Source: <http://www.gpionline.net/whatis.htm>

Alternative Indicators

The Barcelona Journey Towards Sustainability: Environmental, social and business Transformation

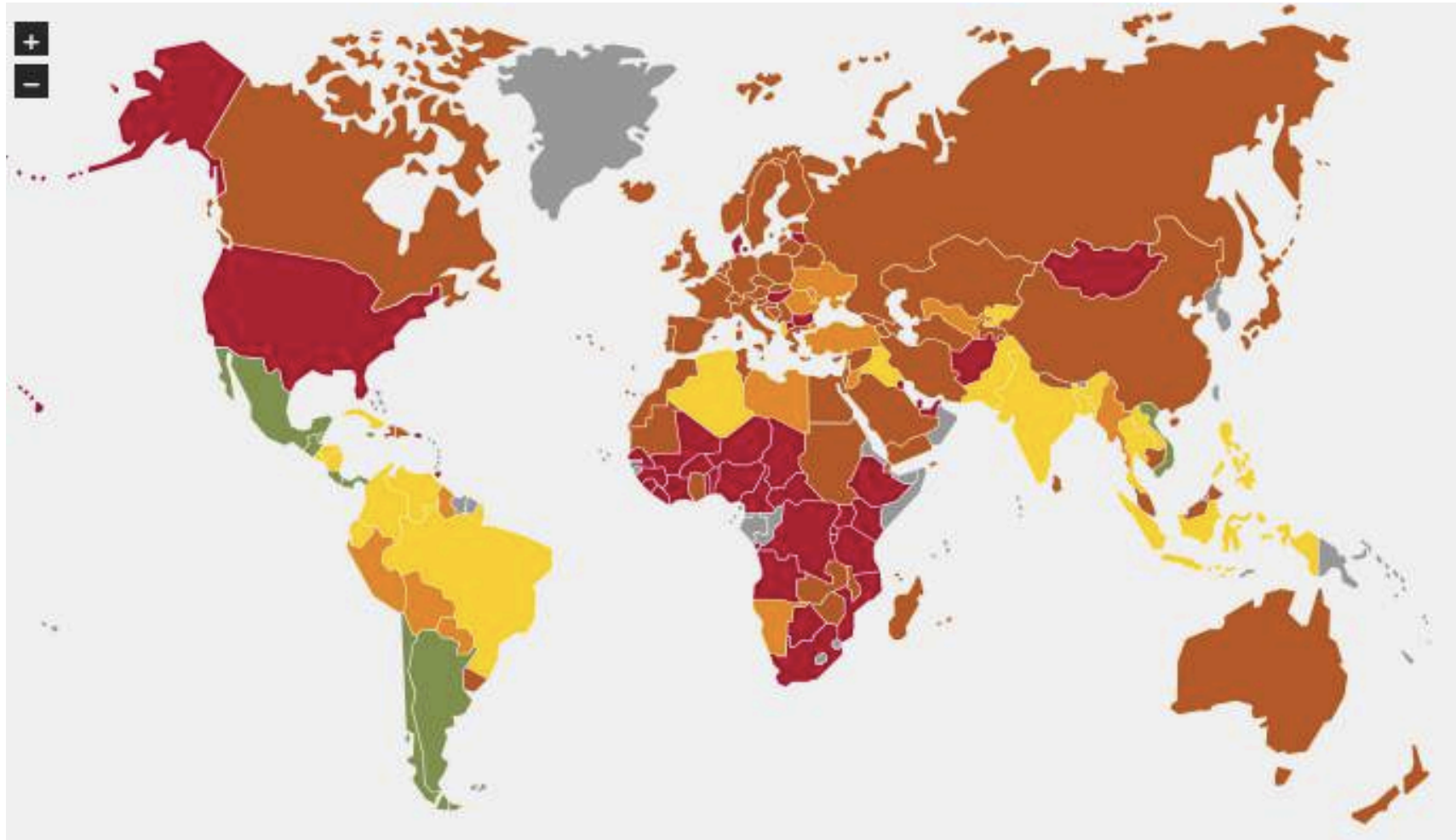


The **Human Development Index** has had a significant impact on drawing the attention of governments, corporations and international organizations to aspects of development that focus on the expansion of choices and freedoms, not just income.

<http://www.cgdev.org/publication/commitment-development-index-2012>

Alternative Indicators

Happy Planet Index



Alternative Indicators

The term "gross national happiness" was coined in 1972 by Bhutan's

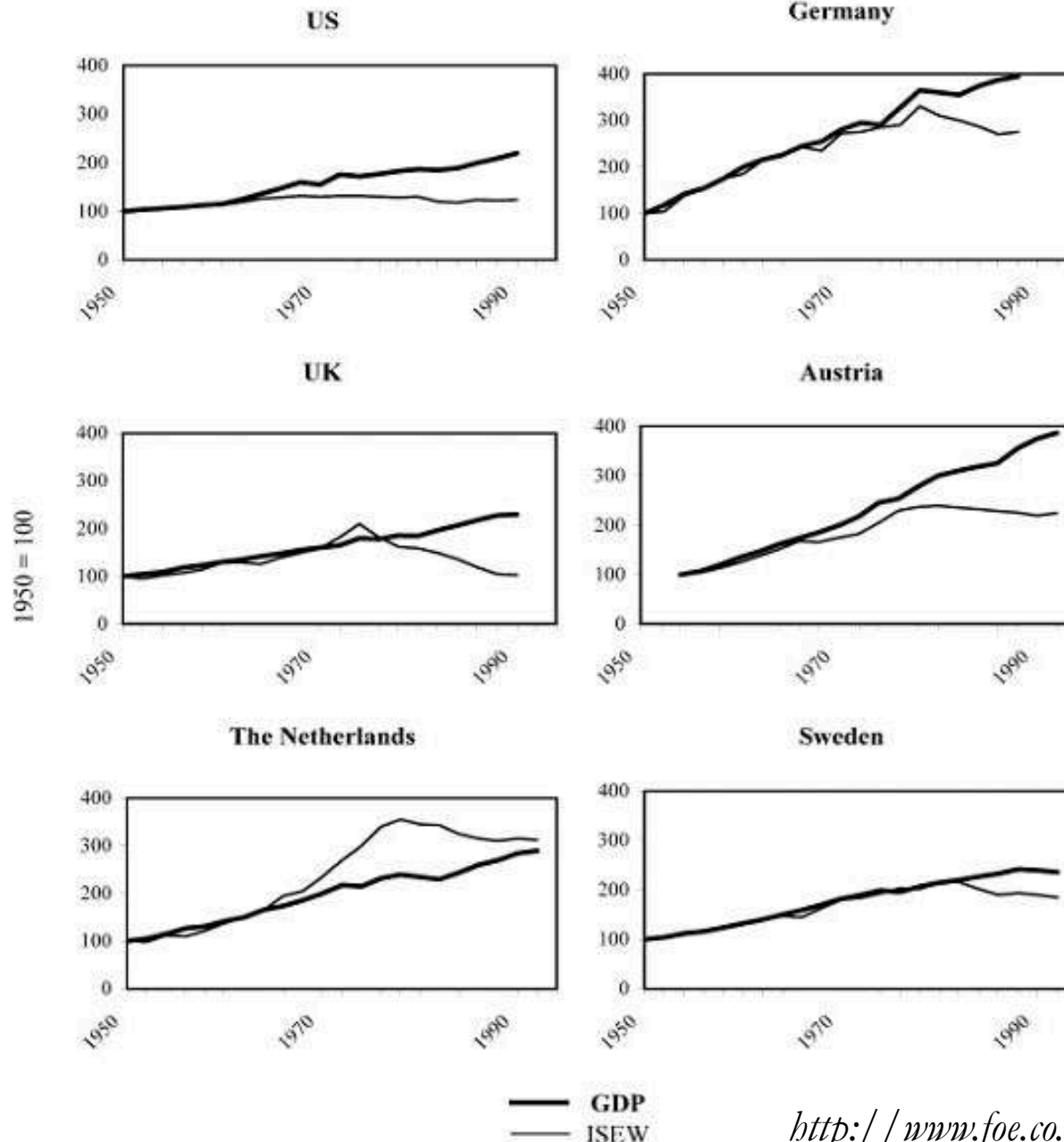
Gross national happiness in Bhutan: the big idea from a tiny state that could change the world

Bhutan measures prosperity by gauging its citizens' happiness levels, not the GDP. Now its ideas are attracting interest at the UN climate change conference in Doha

Annie Kelly Thimphu, Bhutan
The Observer, Saturday 1 December 2012 14.30 GMT



Alternative Indicators



The Index of Sustainable Economic Welfare (ISEW), which has been calculated for 8 countries, and has just been revised in the UK by CES, NEF and Friends of the Earth.

The Emerging Worldview

The concept of "worldview" evolved in modern times from the work of physicist Thomas Kuhn, whose 1962 book talked about **paradigm** for a worldview which is essentially a belief system that defines the way any particular culture interprets the world at a particular time.

5 Monkeys and Bananas Experiment

- It is very resistant to change
- Changes only when severely challenged
- Those interpreting the world by it do not think of it as characteristic of their culture and time, but rather see it as "the way things are"
- He observed that science did not evolve in a simple linear fashion, but rather with occasional quantum jumps. These jumps he called **paradigm shifts**.

The Emerging Worldview

The period from roughly mid 13th century to the early 16th century in Europe was characterized by what might be called the “**scholastic paradigm**”. This was a period when the Catholic Church was a dominant international power with great influence on the European monarchies till...

The discovery of the
“New World” by
Columbus in 1492



Martin Luther's
challenge to the
pope's infallibility in
1517.



Copernicus, who
claimed that Earth
rotated around the
sun.- 1543



The Emerging Worldview

Until **Newton's work in the 1670s**, several pioneering scientists and philosophers contributed to the paradigm shift.

- ✧ **Giordano Bruno** brought the Italian renaissance to France and England. He tried to create a science of life by removing the superstitions of the time and create a religion of love but was incarcerated by the Catholic Church and burnt at the stake. Bruno's writings are still banned by the Vatican.
- ✧ **Francis Bacon** introduced the then novel idea of learning from nature by experimentation and observation.
- ✧ **Galileo and Kepler** confirmed and extended Copernicus' work.
- ✧ **Descartes** introduced the idea of humans as separate from Nature

The Emerging Worldview

Newton developed the mathematical methods and physical laws of motion that would become the foundation of a new paradigm, sometimes referred to as the Cartesian/Newtonian paradigm, which dominated European culture for over 300 years, and is still the dominant way of looking at the world by part, but not all, of the scientific community.

In this view, the universe is seen as a mechanical clock, gradually unwinding, with no divine plan behind it.

Processes are broken down into smaller parts which can be analyzed separately with Newton's methods.

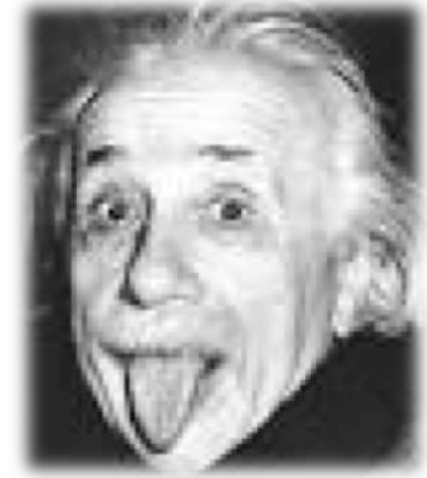
Nature is seen as a resource to be exploited and conquered, an attitude some have called "a science of death".



The Emerging Worldview

By the early 20th century, cracks were beginning to appear in the mechanical view of the world.

Einstein's theory of relativity, confirmed experimentally in 1919, and the emergence of a radically new quantum physics to explain subatomic phenomena, could not be explained by Newtonian mathematics.



Then in 1927, a dagger to the heart of the reductionist, mechanistic paradigm was delivered by **Werner Heisenberg**, who formulated the Uncertainty Principle of quantum physics, which in essence said that we cannot separate the observer from the observed, contrary to Descartes' assumption

The Emerging Worldview

The currently dominant **mechanistic worldview** is in opposition to a gradually emerging, new **holistic worldview** of interconnectedness and oneness.

A worldview is important because it is **not just about science**. Its affects are felt in every aspect of society, for example, in our attitudes to education, religion, politics, human relationships, living conditions, production technologies and much, much more.



<http://www.mechanicmeetsgardener.com>

The Emerging Worldview

NEW PARADIGM THINKERS

Many people have contributed to the emerging worldview

- ❑ **Rudolf Steiner** developed a whole education system, in use today in many countries (Steiner schools, also known as Waldorf schools in the USA). Biodynamic farming is also due to Steiner.
- ❑ British Climatologist **James Lovelock** was the first to come up with the concept of the Earth as a self-regulating system.
- ❑ **Thomas Berry** is an American historian. He is one of the pioneers of deep ecology and ecospiritualism
- ❑ Norwegian philosopher **Arne Naess** contributed to the new paradigm with the 'deep ecology' concept, which sees humans as directly integrated with the environment— not separate from ecology

The Emerging Worldview

NEW PARADIGM THINKERS

- ❑ **Bill Mollison** invented permaculture, a new design principle based on working with nature.
- ❑ Eco-philosopher and Buddhist scholar **Joanna Macy** introduced her “Council of all Beings” workshop to illustrate the principles of deep ecology
- ❑ Psychiatrist **Stanislav Grof** brought the concepts of transpersonal psychology to thousands through his holotropic breathing techniques, which often lead to deep spiritual experiences.
- ❑ **Vandana Shiva**, along with **Satish Kumar**, has been defining Earth Democracy and a spiritual lifestyle

The Emerging Worldview

While the **new worldview was formulated originally within physics**, it has taken a long time for it to manifest in the social sciences, economics, politics, social structures, and lifestyles.

- ❑ **The United Nations** made a major effort: Environment and Development (Rio 1992); Human Rights (Vienna 1993); Population and Development (Cairo 1994); The Social Summit (Copenhagen 1995); Convention of Parties (COP)
- ❑ Contributions from the **business sector** have been quite limited. The ultra-short planning horizon of the business world does not encourage manifestation of long term shifts, and when it does it is mostly reactive and adaptive.
- ❑ **Governments and politicians** in our day are very much allied with the business world and subject to the same tendencies to prioritize the short term and personal power and be generally reactive.
- ❑ **Universities** are traditionally ultra conservative. New paradigm thinkers have had to or have chosen to work outside the universities.

The Emerging Worldview

The Barcelona Journey Towards Sustainability:
Environmental, social and business Transformation



"Blessed Unrest"

Paul Hawken
Natural Capitalism

<https://www.youtube.com/watch?v=w5L7XIjV4Jw>