

# Prof. Rex Li's Writings

**Category:** Psychology

**Sub-category:** Thinking and Learning

**Code:** Psy 02-004

**Title:** Summary of Steven Pinker's  
Data in *Enlightenment Now*

**Year Written:** 2020

**Summary/ Abstract:** Pinker has 75 charts in his book *Enlightenment Now* (2018) to show improvement of humanity in the past century. I herein pick 15 for easy reference.

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## Summary of Steven Pinker's Data in *Enlightenment Now*

His book is inserted with 75 charts pointing almost consistently to the improvement of human life. I have scanned 30. A few items stand out:

### (1) Life and Death

Life expectancy has risen (5-1, 5-4), while various form of mortality goes down. That includes

- |   |  |
|---|--|
| 5-2 Child mortality, 1751 – 2013                          | 11-2 Battle deaths, 1946 – 2016                                  |
| 5-3 Maternal mortality, 1751 – 2013                       | 11-3 Genocide deaths, 1956 - 2016                                |
| 6-1 Childhood deaths from infectious disease, 2000 – 2013 | 12-1 Homicide deaths Western Europe, US, and Mexico, 1300 – 2015 |
| 7-4 Famine deaths, 1860 – 2016                            | 12-2 Homicide deaths, 1967 – 2015                                |
|   | 12-8 Natural disaster deaths, 1900 – 2015                        |
|   | 12-9 Lightning strike deaths, US, 1900 – 2015                    |

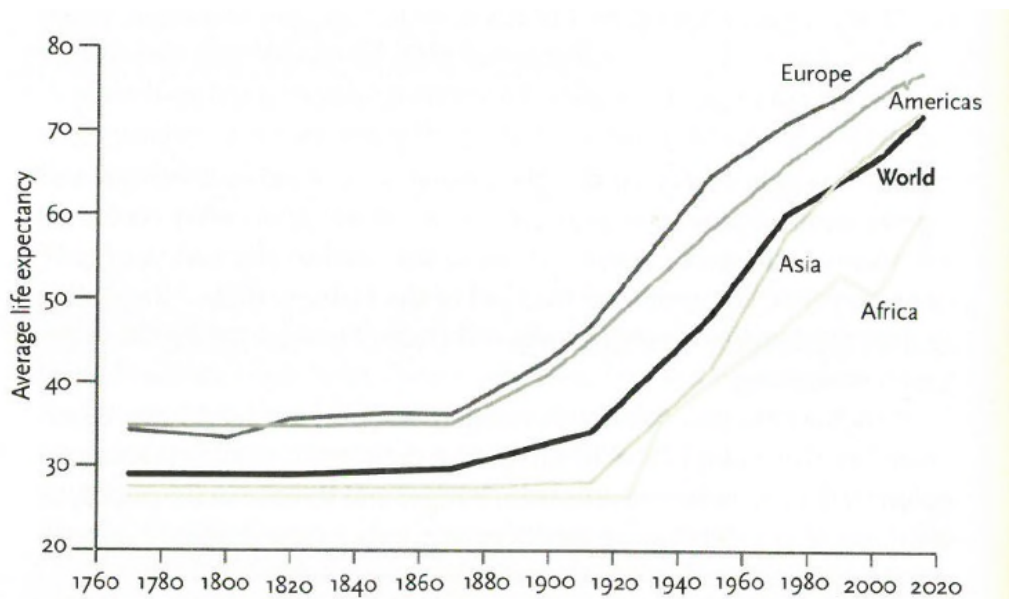


Figure 5-1: Life expectancy, 1771–2015

Sources: *Our World in Data*, Roser 2016n, based on data from Riley 2005 for the years before 2000 and from the World Health Organization and the World Bank for the subsequent years. Updated with data provided by Max Roser.

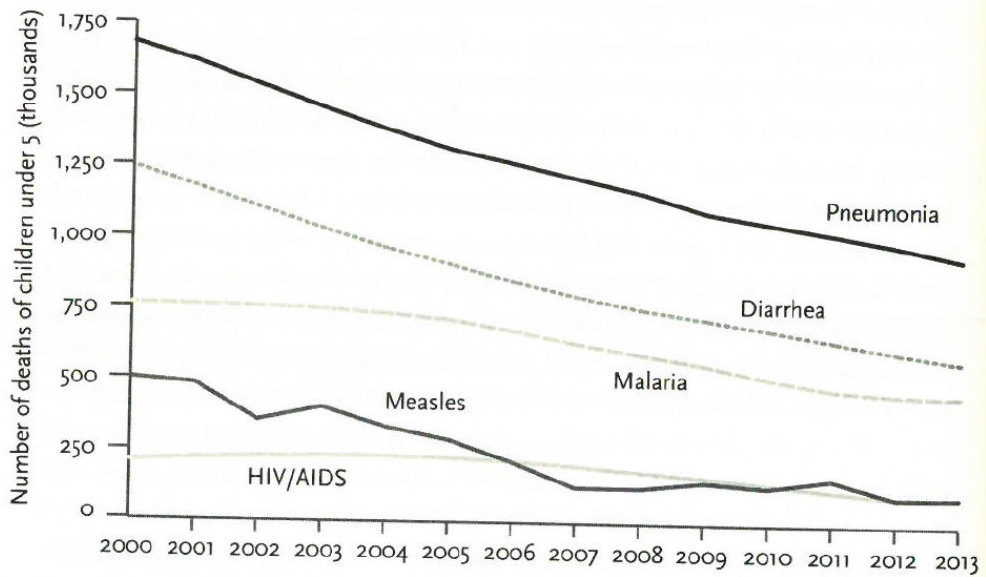


Figure 6-1: Childhood deaths from infectious disease, 2000–2013

Source: Child Health Epidemiology Reference Group of the World Health Organization, Liu et al. 2014, supplementary appendix.

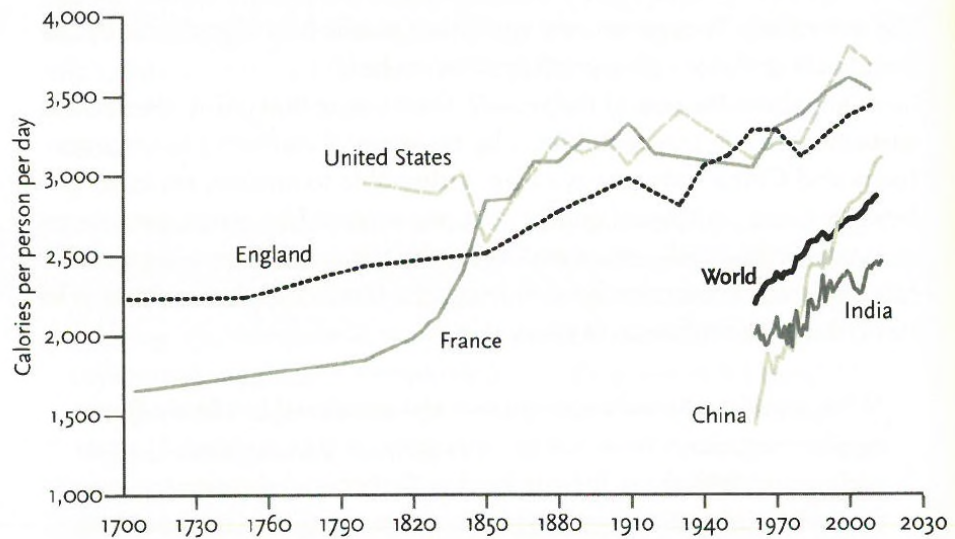


Figure 7-1: Calories, 1700–2013

Sources: United States, England, and France: *Our World in Data*, Roser 2016d, based on data from Fogel 2004. China, India, and the World: Food and Agriculture Organization of the United Nations, <http://www.fao.org/faostat/en/#data>.

## (2) Traffic Safety and Cost

There are less fatal motor accidents, plane crash, etc. Cost of travel goes down while tourism boom.

12-3 Motor vehicle accident deaths, US, 1921 – 2015

17-7 Cost of air travel, US 1979 – 2015

12-4 Pedestrian deaths, US 1927 – 2015

17-8 International tourism, 1955 – 2015

12-5 Plane crash deaths, 1970 – 2015

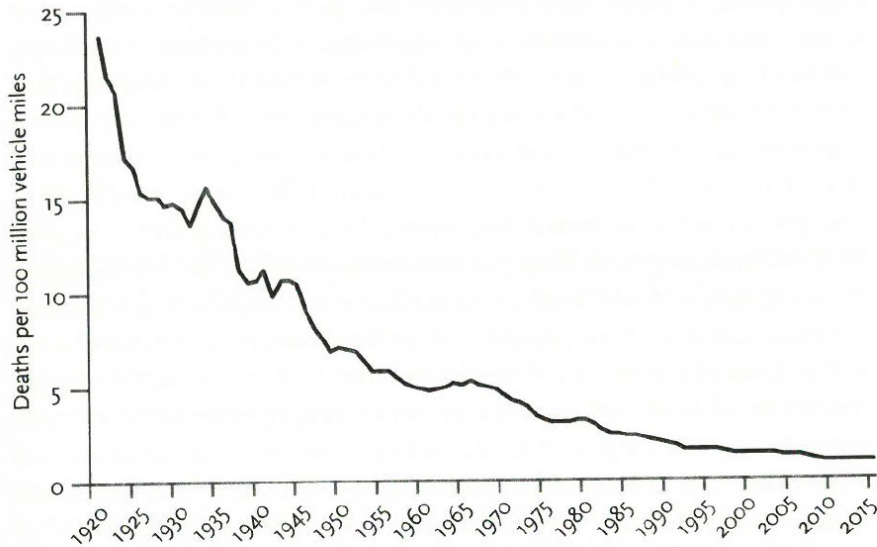


Figure 12-3: Motor vehicle accident deaths, US, 1921–2015

Sources: National Highway Traffic Safety Administration, accessed from [http://www.informedforlife.org/demos/FCkeditor/UserFiles/File/TRAFFICFATALITIES\(1899-2005\).pdf](http://www.informedforlife.org/demos/FCkeditor/UserFiles/File/TRAFFICFATALITIES(1899-2005).pdf), <http://www.fars.nhtsa.dot.gov/Main/index.aspx>, and <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812384>.

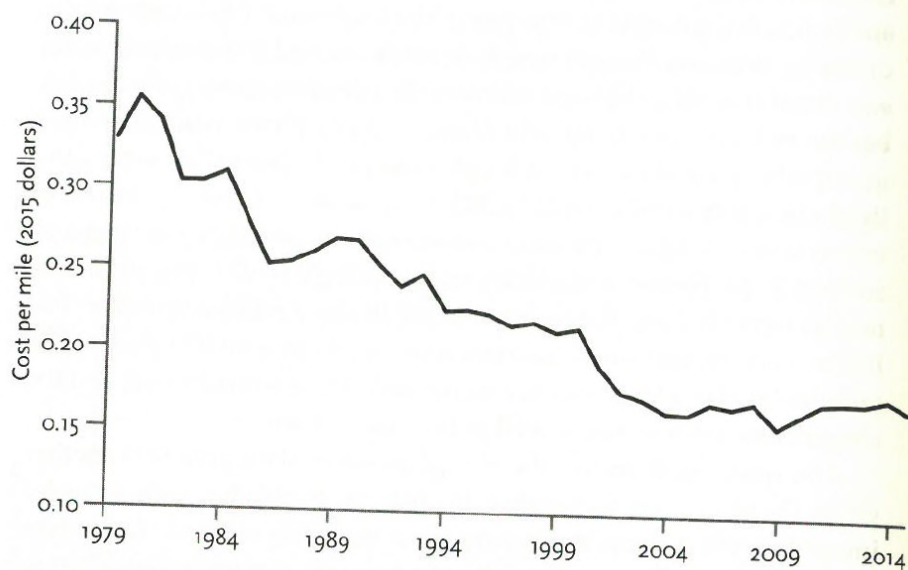


Figure 17-7: Cost of air travel, US, 1979–2015

Source: Thompson 2013, updated with data from Airlines for America, <http://airlines.org/dataset/annual-round-trip-fares-and-fees-domestic/>. Domestic travel, excluding checked baggage fees (which would raise the average cost for baggage-checking passengers by about a half-cent per mile since 2008).

### (3) Economic Growth

He shows that GDP has risen exponentially. Social spending is rising rapidly and gini goes down

8-1 Gross World Product, 1 – 2015

8-2 GDP per capita, 1600 – 2015

9-1 International inequality, 1820 – 2013

9-2 Global inequality, 1820 – 2011

9-3 Inequality, UK and US, 1688 – 2013

9-4 Social spending, OECD countries, 1880 – 2016

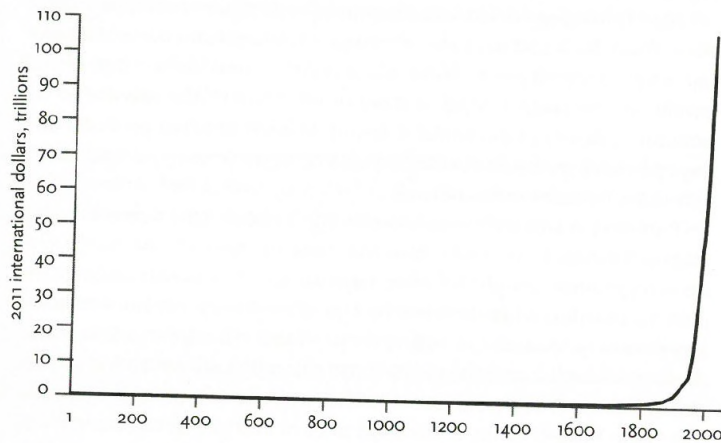


Figure 8-1: Gross World Product, 1–2015

Source: *Our World in Data*, Roser 2016c, based on data from the World Bank and from Angus Maddison and Maddison Project 2014.

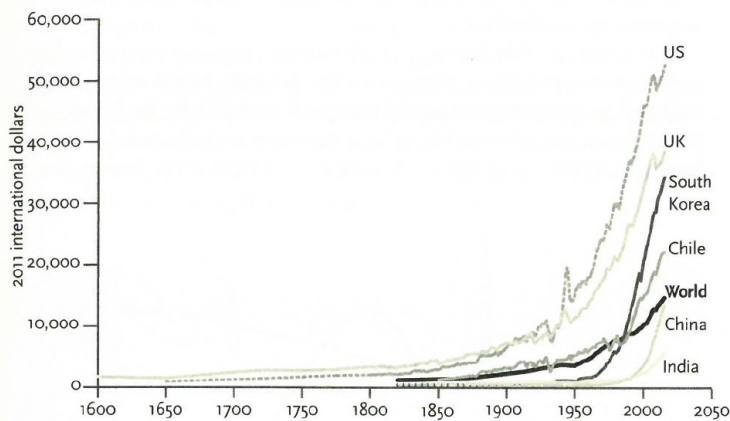


Figure 8-2: GDP per capita, 1600–2015

Source: *Our World in Data*, Roser 2016c, based on data from the World Bank and from Maddison Project 2014.

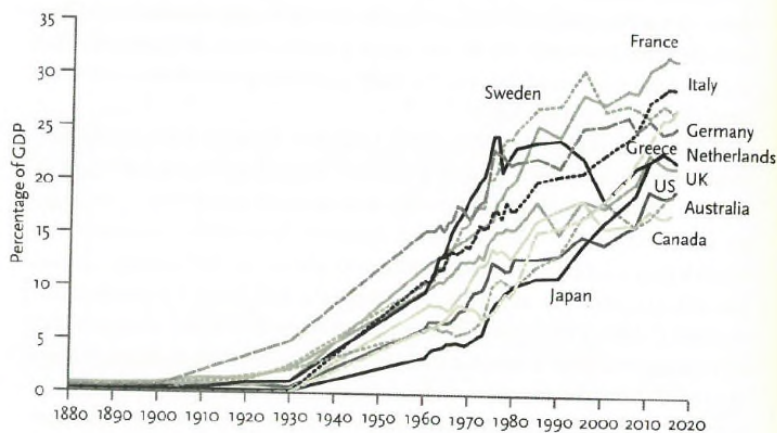


Figure 9-4: Social spending, OECD countries, 1880–2016

Source: *Our World in Data*, Ortiz-Ospina & Roser 2016b, based on data from Lindert 2004 and OECD 1985, 2014, 2017. The Organisation for Economic Co-operation and Development includes thirty-five democratic states with market economies.

R: Sure, but extreme poverty stay in 500 million people. It 7% of world population (8-3, 8-4, 8-5); undernourishment stays at 12% (7-3) in developing countries.

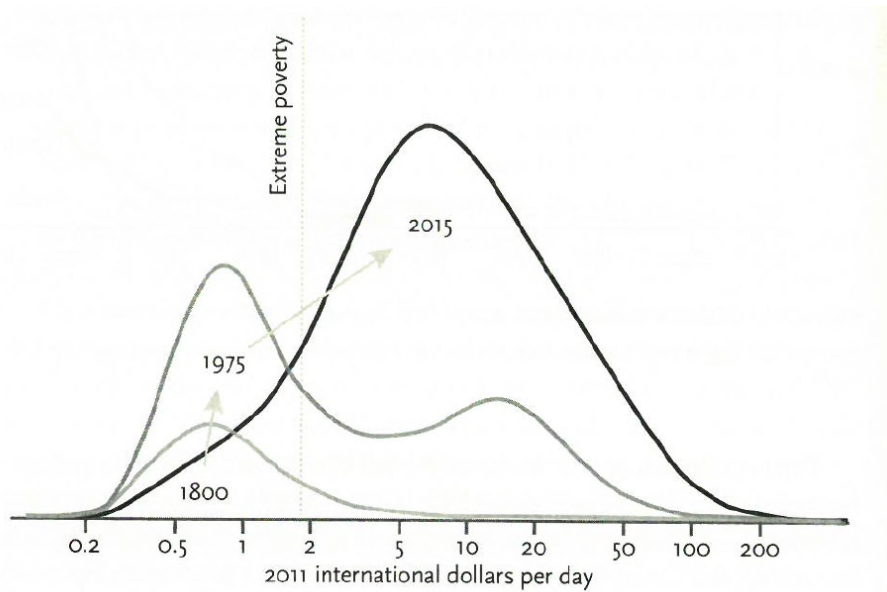


Figure 8-3: World income distribution, 1800, 1975, and 2015

Source: *Gapminder*, via Ola Rosling, <http://www.gapminder.org/tools/mountain>. The scale is in 2011 international dollars.

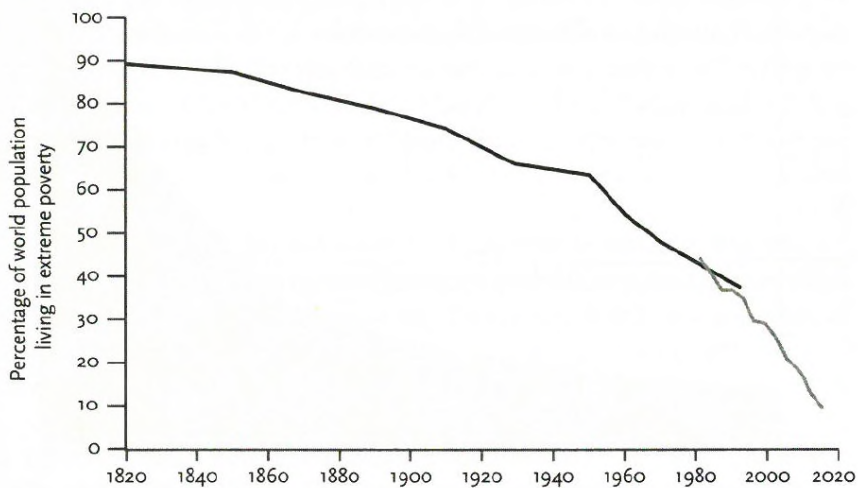


Figure 8-4: Extreme poverty (proportion), 1820–2015

Sources: *Our World in Data*, Roser & Ortiz-Ospina 2017, based on data from Bourguignon & Morrison 2002 (1820–1992), averaging their “Extreme poverty” and “Poverty” percentages for commensurability with data on “Extreme poverty” for 1981–2015 from the World Bank 2016g.

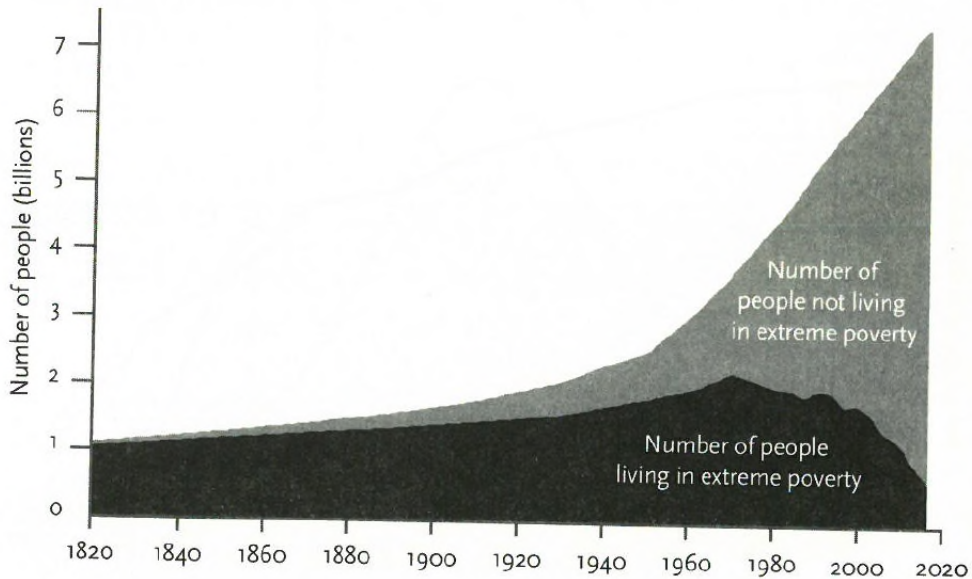


Figure 8-5: Extreme poverty (number), 1820–2015

Sources: *Our World in Data*, Roser & Ortiz-Ospina 2017, based on data from Bourguignon & Morrison 2002 (1820–1992) and the World Bank 2016g (1981–2015).

#### (4) Population and Environment

Annual population rate peaked in 1962 (2.1%) and fell sharply, in 2010 (1.2%). It is predicted to fall further and world population may peak off to 9.5 billion in 2070. (Fig 10-1)

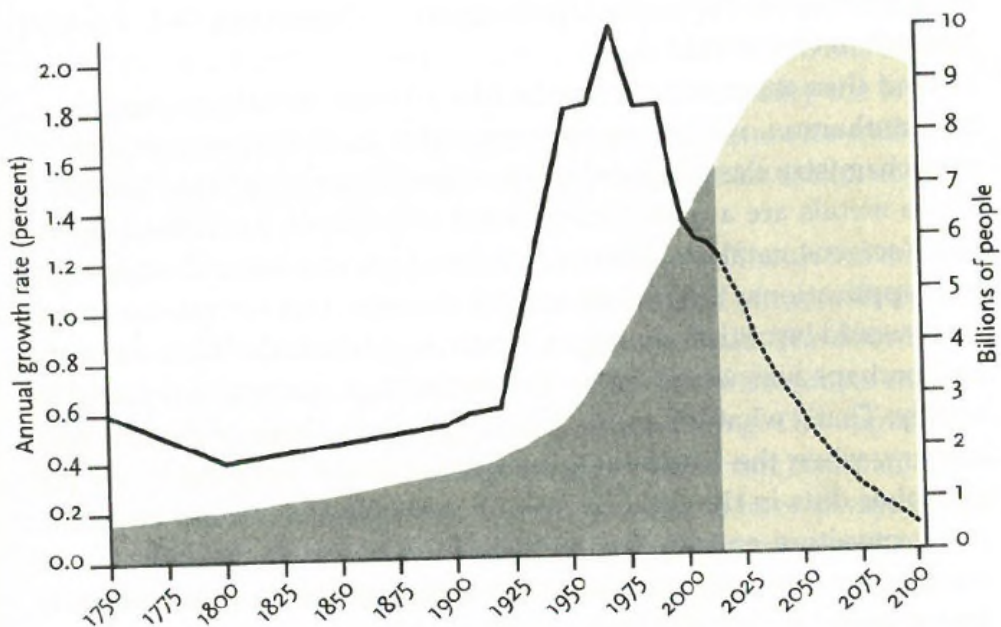


Figure 10-1: Population and population growth, 1750–2015 and projected to 2100

Sources: *Our World in Data*, Ortiz-Ospina & Roser 2016d. 1750–2015: United Nations Population Division and *History Database of the Global Environment (HYDE)*, PBL Netherlands Environmental Assessment Agency (undated). **Post-2015 projections:** International Institute for Applied Systems Analysis, Medium Projection (aggregate of country-specific estimates, taking education into account), Lutz, Butz, & Samir 2014.

CO<sub>2</sub> emission has stabilized, leveled off, or gone down. (fig 10-7, 10-8)

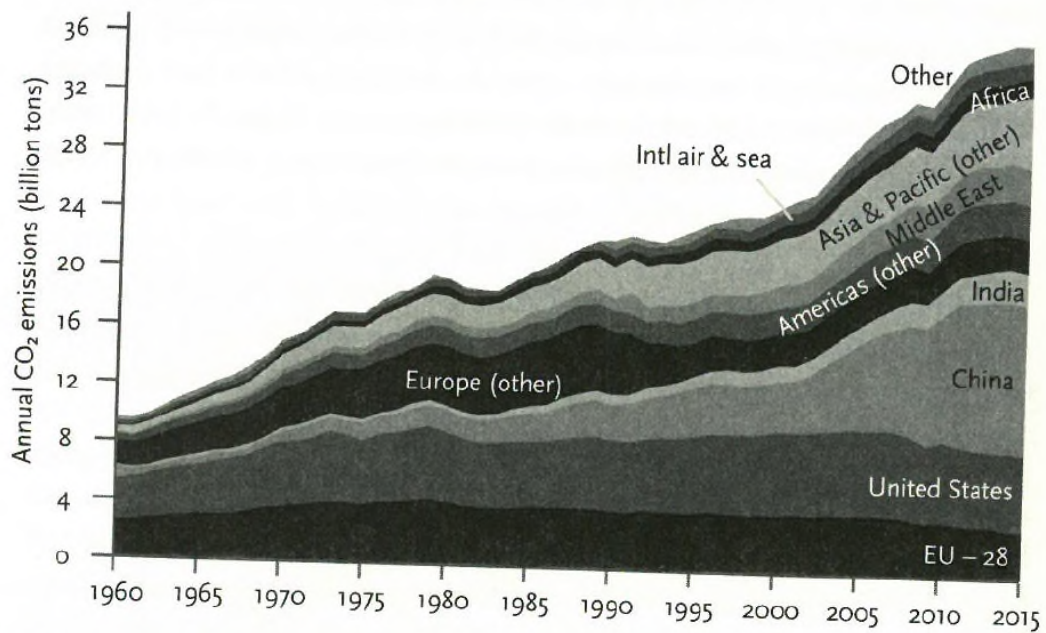


Figure 10-8: CO<sub>2</sub> emissions, 1960–2015

Sources: *Our World in Data*, Ritchie & Roser 2017 and <https://ourworldindata.org/grapher/annual-co2-emissions-by-region>, based on data from the Carbon Dioxide Information Analysis Center, [http://cdiac.ornl.gov/CO2\\_Emission/](http://cdiac.ornl.gov/CO2_Emission/), and Le Quéré et al. 2016. “International air & sea” refers to aviation and sea transport; it corresponds to “Bunker fuels” in the original sources. “Other” refers to the difference between estimated global CO<sub>2</sub> emissions and the sum of the regional and national totals; it corresponds to the “Statistical difference” component.

Summary of Steven Pinker’s position – humanistic environmentalism supported by science:

Despite a half-century of panic, humanity is not on an irrevocable path to ecological suicide. The fear of resource shortages is misconceived. So is the misanthropic environmentalism that sees modern humans as vile despoilers of a pristine planet. An enlightened environmentalism recognizes that humans need to use energy to lift themselves out of the poverty to which entropy and evolution consign them. It seeks the means to do so with the least harm to the planet and the living world. History suggests that this modern, pragmatic, and humanistic environmentalism can work. As the world gets richer and more tech-savvy, it dematerializes, decarbonizes, and densifies, sparing land and species. As people get richer and better educated, they care more about the environment, figure out ways to protect it, and are better able to pay the costs. Many parts of the environment are rebounding, emboldening us to deal with the admittedly severe problems that remain.



## (5) Quality of Life

Working hours have reduced from 70 to 40 hours per week; retirement age went down from 75 to 65 (fig 17-1, 17-21) and housework becomes so much less (fig. 17-3); less than 35% of income are spent on necessities. (17-5) We have over 30 hours of leisure time per week (17-6)

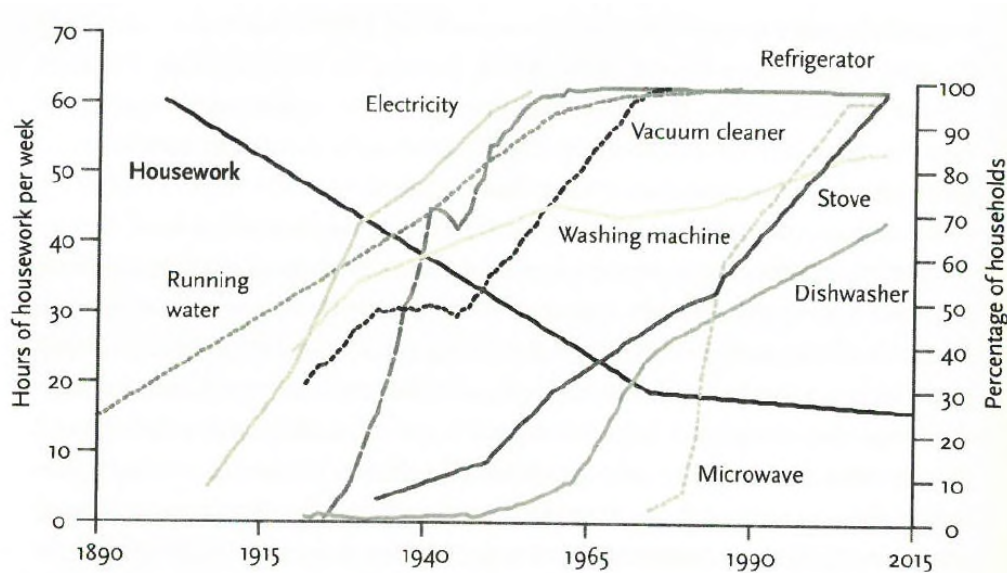


Figure 17-3: Utilities, appliances, and housework, US, 1900–2015

Sources: Before 2005: Greenwood, Seshadri, & Yorukoglu 2005. Appliances, 2005 and 2011: US Census Bureau, Siebens 2013. Housework, 2015: *Our World in Data*, Roser 2016t, based on the American Time Use Survey, Bureau of Labor Statistics 2016b.

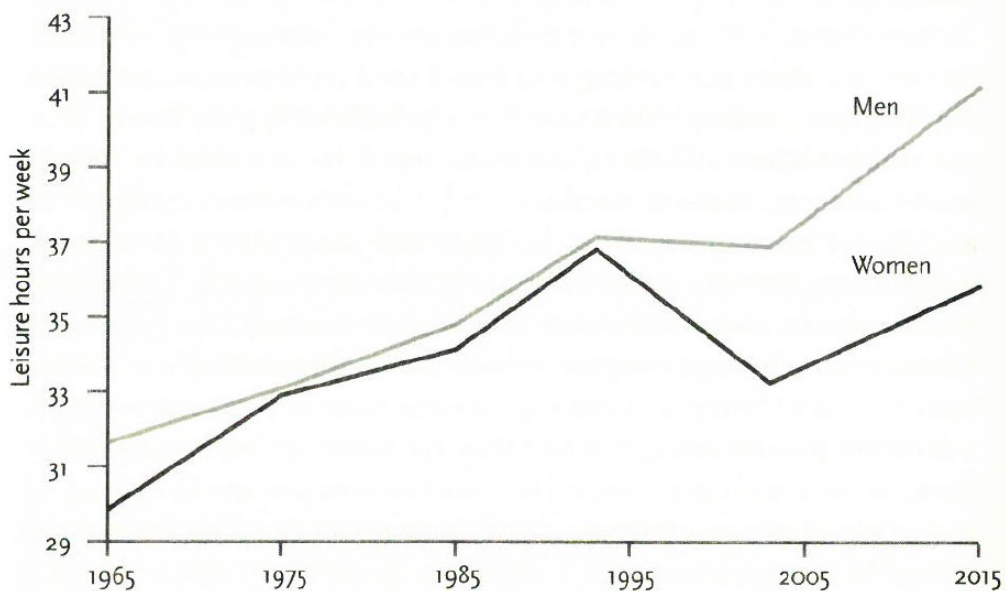


Figure 17-6: Leisure time, US, 1965–2015

Sources: 1965–2003: Aguiar & Hurst 2007, table III, Leisure Measure 1. 2015: American Time Use Survey, Bureau of Labor Statistics 2016c, summing Leisure and Sports, Lawn and Garden Care, and Volunteering for commensurability with Aguiar & Hurst's Measure 1.

## (6) Happiness (Chapter 18)

To be reviewed

R:

In conclusion, Steven Pinker did make a convincing case of humanity making progress; catastrophe while to be cautioned, is unfounded. He dispels many myths in the media by doomsayers. Point is to go deep and popularize his ideas.

## (7) Humanism (Chapter 23)

Pinker's humanism is based on the Humanist Manifesto (2003):

- Knowledge/ science/ rational analysis
- Humans as part of nature in evolution
- Ethical values derived from human needs, interest and experience
- Life fulfilment
- Happiness by reducing suffering and developing global community (p.410-411)

The goal of maximizing human flourishing—life, health, happiness, freedom, knowledge, love, richness of experience—may be called humanism. (Despite the word's root, *humanism* doesn't exclude the flourish-

There is a growing *movement* called Humanism, which promotes a non-supernatural basis for meaning and ethics: good without God.<sup>1</sup> Its aims have been stated in a trio of manifestoes starting in 1933. The *Humanist Manifesto III*, from 2003, affirms: