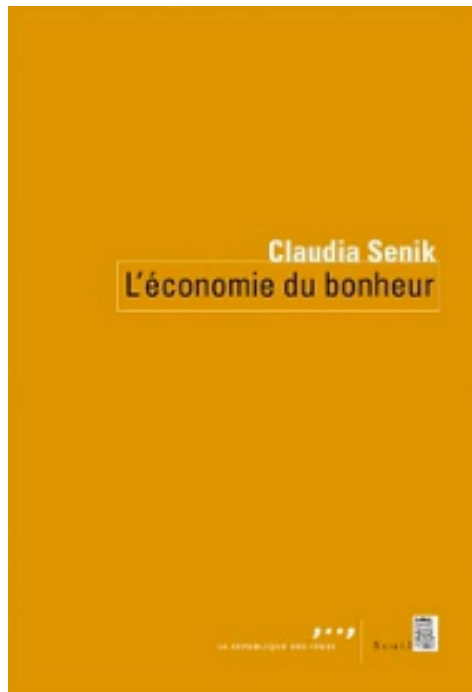


2018 Enterprise Acceleration Briefing

Reboot Happiness

Barcelona, 6-7th September, 2018

The Economics of Happiness and Digital Technology



Claudia Senik

Sorbonne University

and Paris School of Economics

The Economics of Happiness and Digital Technology

- Measuring Happiness
- The Drivers of Happiness
- Can the Digital Economy Help?

Measuring Subjective Well-Being

- **Life satisfaction:** *“All things considered, how satisfied are you with your life as a whole nowadays?”* (0 to 10 scale)
- **Happiness:** *“Taking all things together, how happy would you say you are?”*
(0 “Extremely Unhappy” -10 “Extremely Happy”).
- **Self-reported short-run mood, emotions, affects**
happy / sad / excited / bored

BBC News Website 24 Feb 2011

www.bbc.co.uk/news/uk-12566965

ONS Happiness Survey Questions Revealed

After becoming Conservative leader in 2005, David Cameron said gauging people's feelings was one of the "central political issues of our time".

"It's time we admitted that there's more to life than money and it's time we focused not just on GDP but on GWB - general well-being," he said.

The ONS will add the subjective questions to its next annual Integrated Household Survey

The questions will include:

Overall, how satisfied are you with your life nowadays?

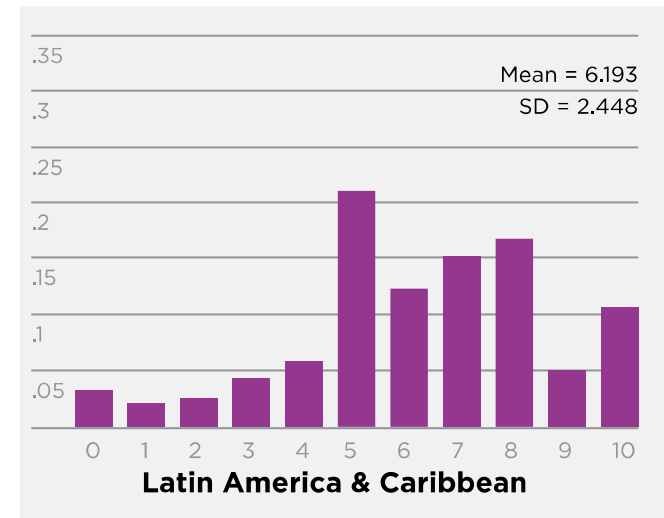
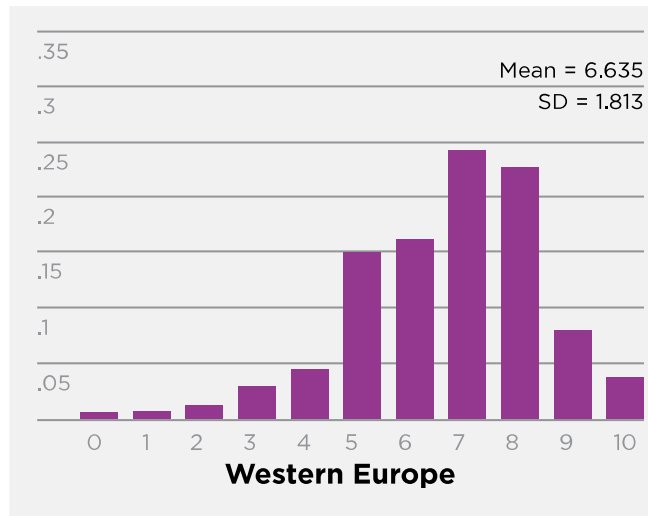
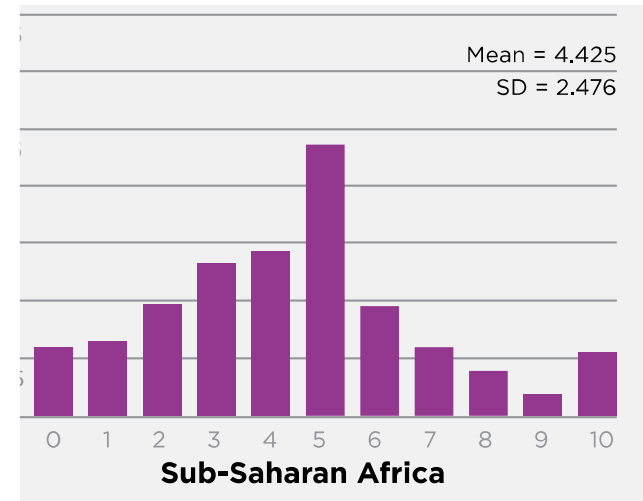
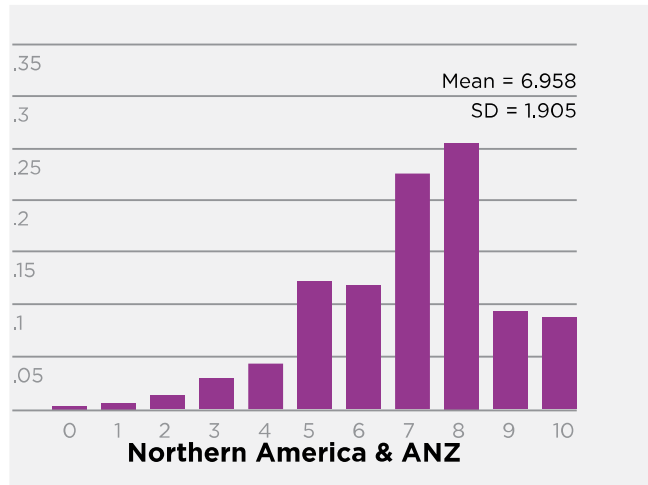
Overall, how happy did you feel yesterday?

Overall, how anxious did you feel yesterday?

Overall, to what extent do you feel the things you do in your life are worthwhile?

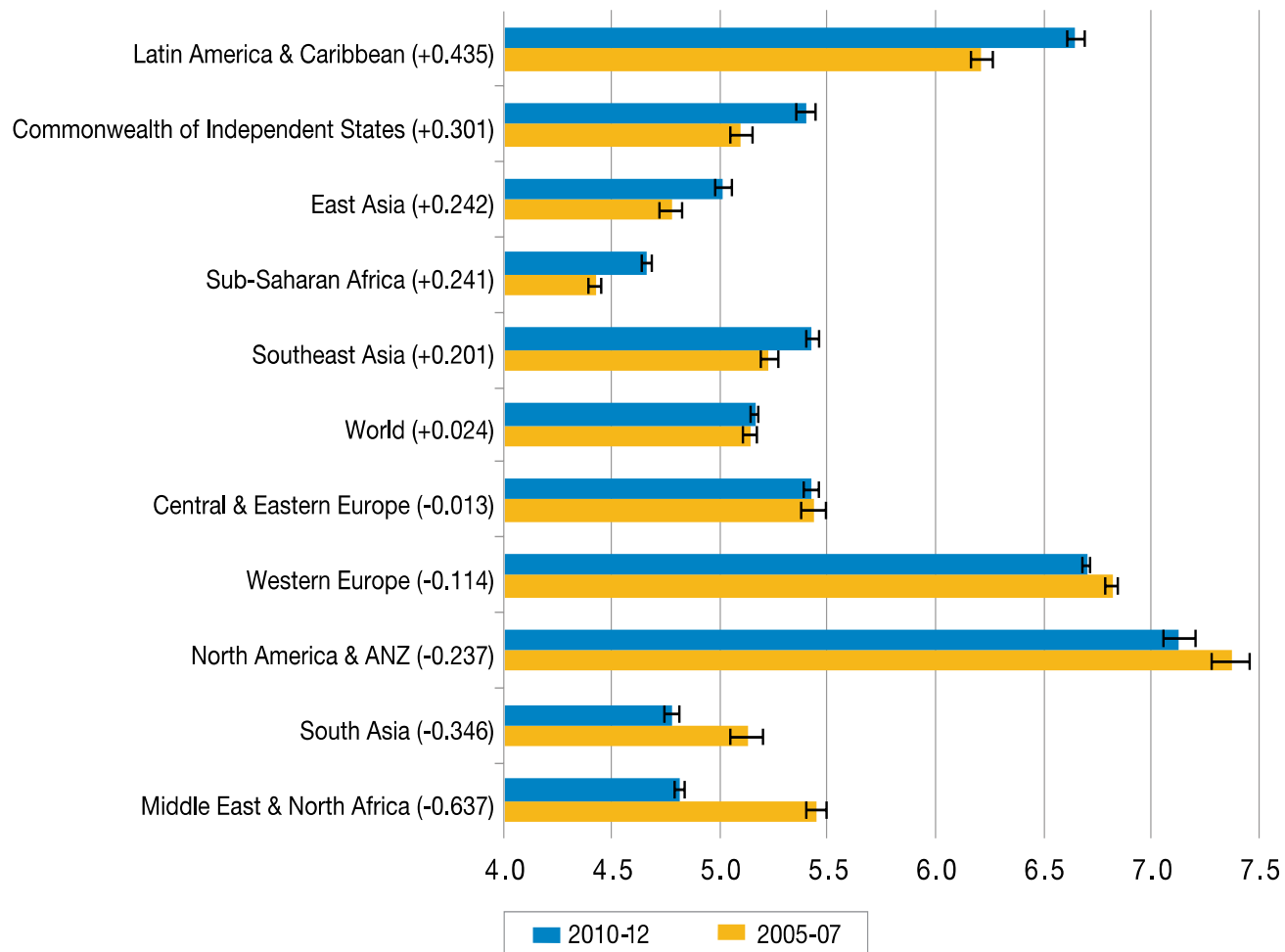
www.bbc.co.uk/news/uk-12566965

World Happiness Report 2018



World Happiness Report

Figure 2.4: Comparing World and Regional Happiness Levels: 2005–07 and 2010–12



What explains cross-country differences in happiness?

- the largest single part (30%) comes from social support
- followed by GDP per capita (26%)
- healthy life expectancy (19%),
- freedom (13%),
- generosity (7%)
- governance (non-corruption) (4%).

WHR 2018

Figure 2.2: Ranking of Happiness 2015-2017 (Part 1)

Social support

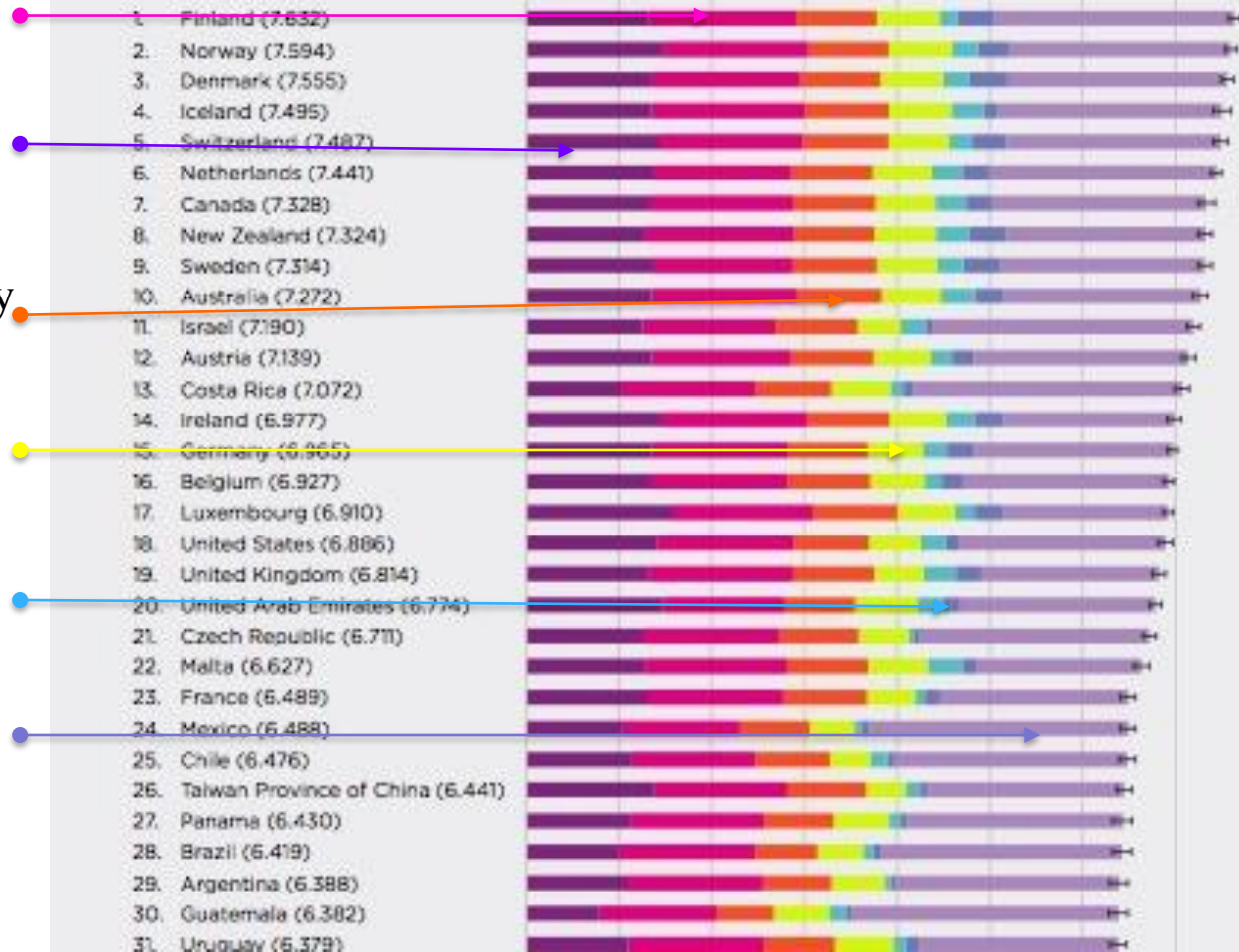
GDP per capita

Life expectancy

Freedom

Generosity

Governance



- **Social Support is Key**
- **Can Digital Technology help?**
- **Can social networks help?**
- **→ Research so far inconclusive**

*The Relationship Between Use of Social Network Sites,
Online Social Support, and Well-Being Results From a Six-
Wave Longitudinal Study*

Sonja Utz and Johannes Breuer

- 6 waves of a Dutch longitudinal study with a representative sample of Dutch Internet users,
- → **Overall, results provide no evidence for SNS use and online social support affecting either stress or life satisfaction.**
- SNS users reported more online social support than nonusers did,
 - SNS can be an effective tool for receiving social support.
- but SNS users also reported higher levels of stress
 - **The two groups did not differ in overall life satisfaction.**

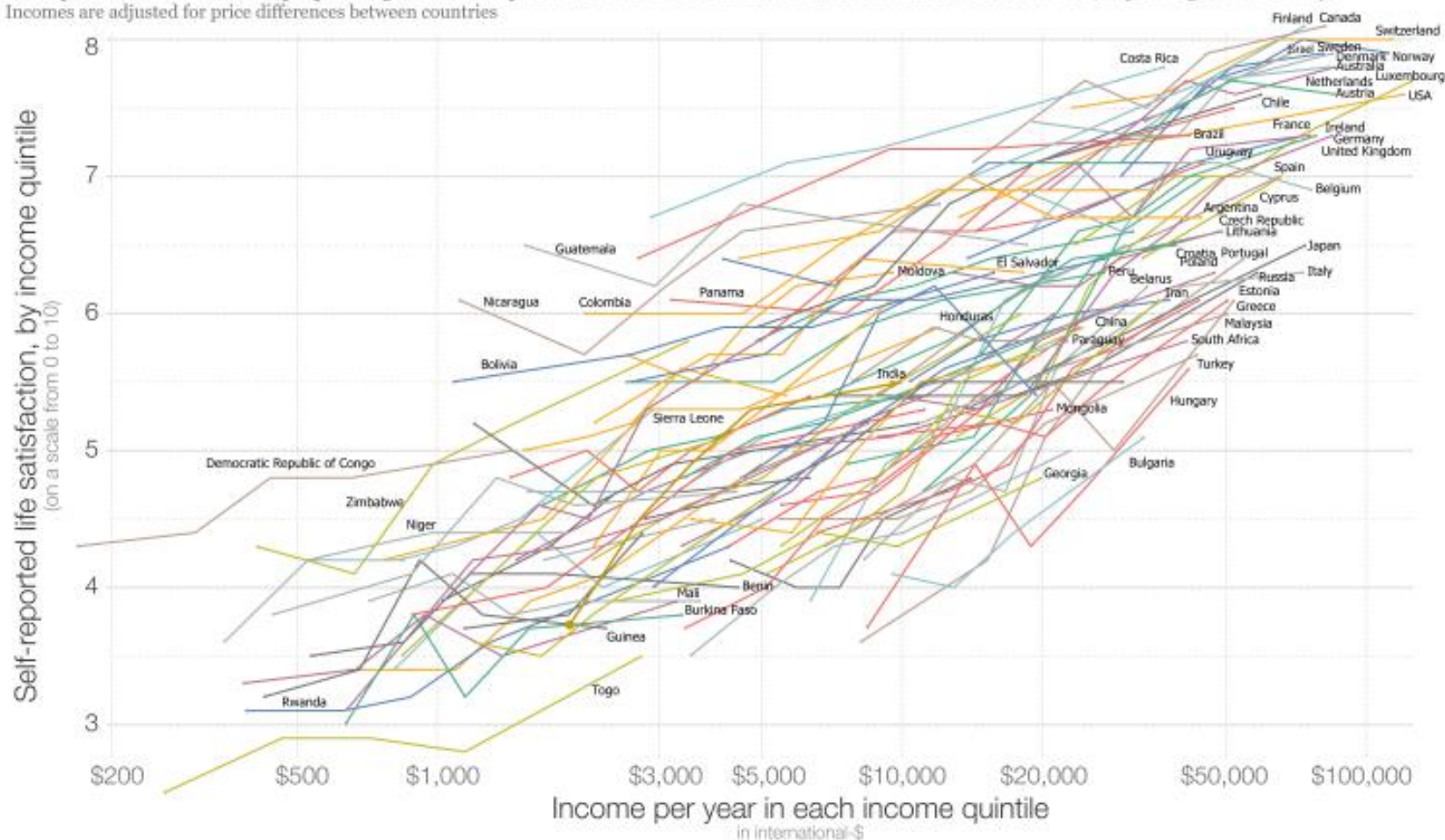
Does money matter for happiness?

Yes

Self-reported life satisfaction across the income distribution, country by country



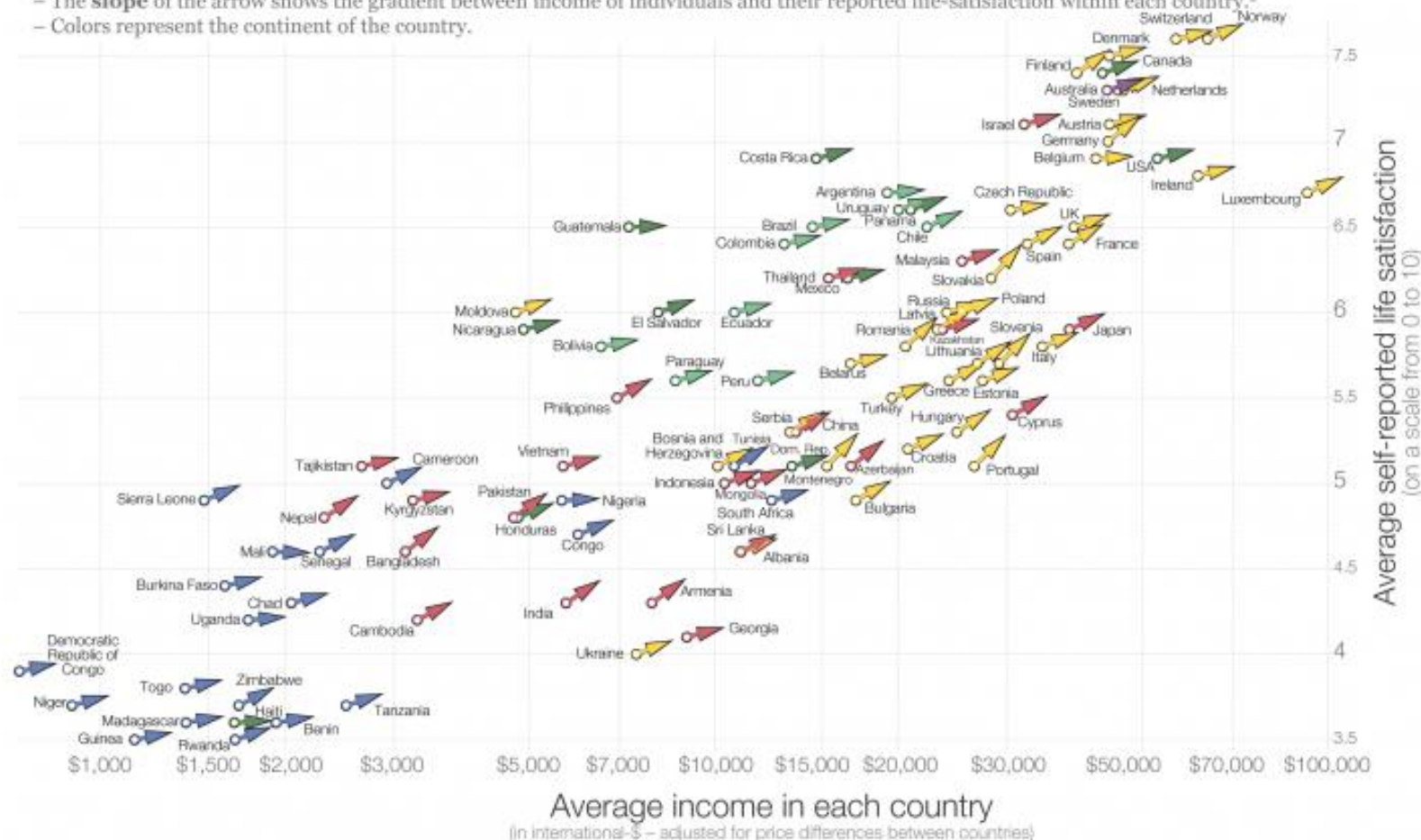
For each country, incomes have been split into five groups with the same number of people (income quintiles). Lines show, country by country, the average self-reported life satisfaction of people at a given income quintile. (Not all 106 countries are labelled. Data is for 2008 to 2014 depending on the country)
Incomes are adjusted for price differences between countries



Data sources: World Bank for data on incomes by quintile (based on income shares by quintile and GNI per capita as the mean income); Gallup World Poll for life satisfaction by income quintile. The visualization is available at OurWorldinData.org where you find more visualizations and research on global development. Licensed under CC-BY-SA by the author Max Roser.

People in richer countries tend to be happier and within all countries richer people tend to be happier

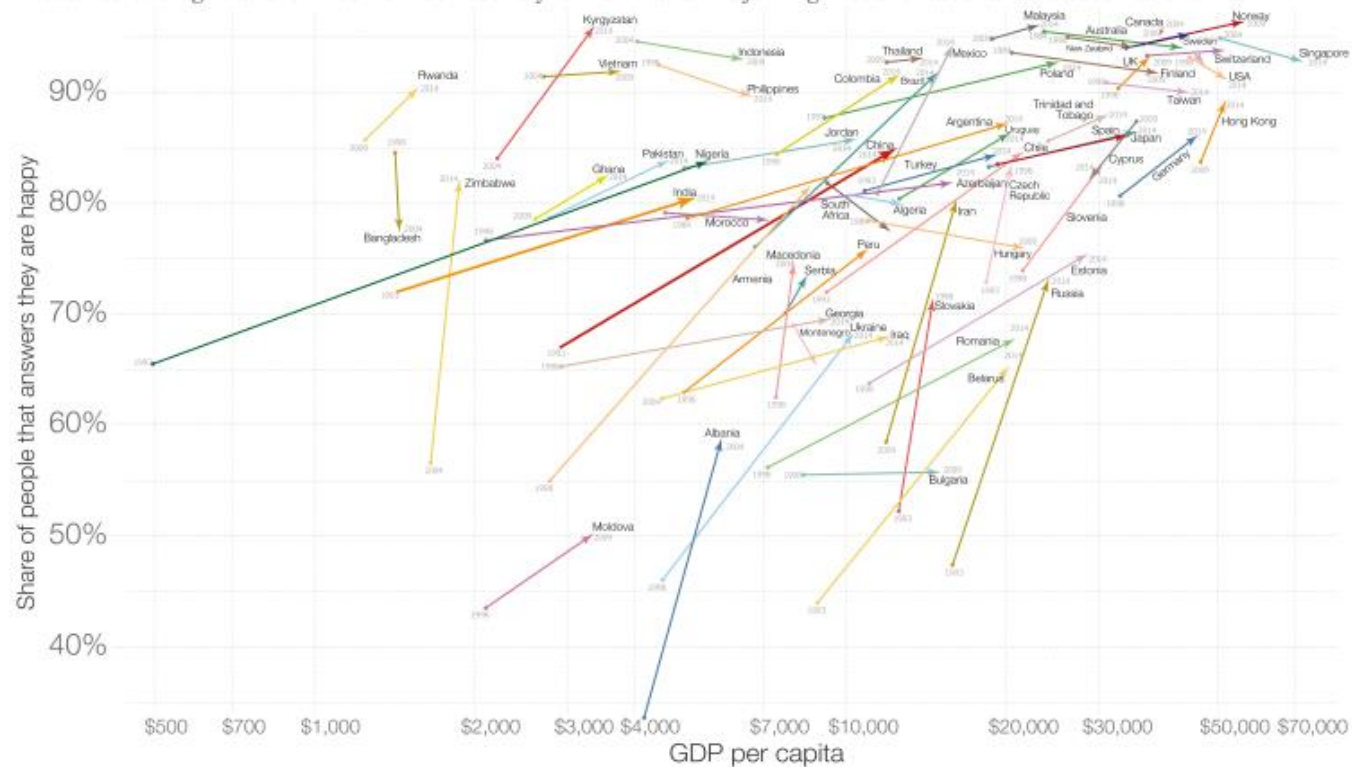
- The **position** of the arrow shows the average life satisfaction reported by the population of a country (vertical axis) and the average income of that country (horizontal axis).
- The **slope** of the arrow shows the gradient between income of individuals and their reported life-satisfaction within each country.*
- Colors represent the continent of the country.



* The gradients correspond, country by country, to the regression coefficients between income quintiles and the related average life satisfaction reported by people within each income quintile.
Data sources: World Bank for data on incomes by quintile (based on income shares by quintile and GDP per capita as the mean income); Gallup World Poll for life satisfaction by income quintile.
 The visualization is available at [OurWorldInData.org](https://ourworldindata.org). There you find the research and more visualizations on life satisfaction.
 Licensed under CC-BY-SA by the author Max Roser.

Our World
in Data

The vertical axis shows the share of people who say they are 'very happy' or 'rather happy'. The horizontal axis measures average national income. Each country is drawn as a line joining first and last available observations.



Data source: self-reported happiness from the World Value Survey; GDP per capita from the Penn World Table.
The interactive data visualization is available at [OurWorldinData.org](https://ourworldindata.org). There you find the raw data and more visualizations on this topic.

Licensed under CC-BY-SA by the author Max Roser.

Long-run Effects of Lottery Wealth on Psychological Well-being

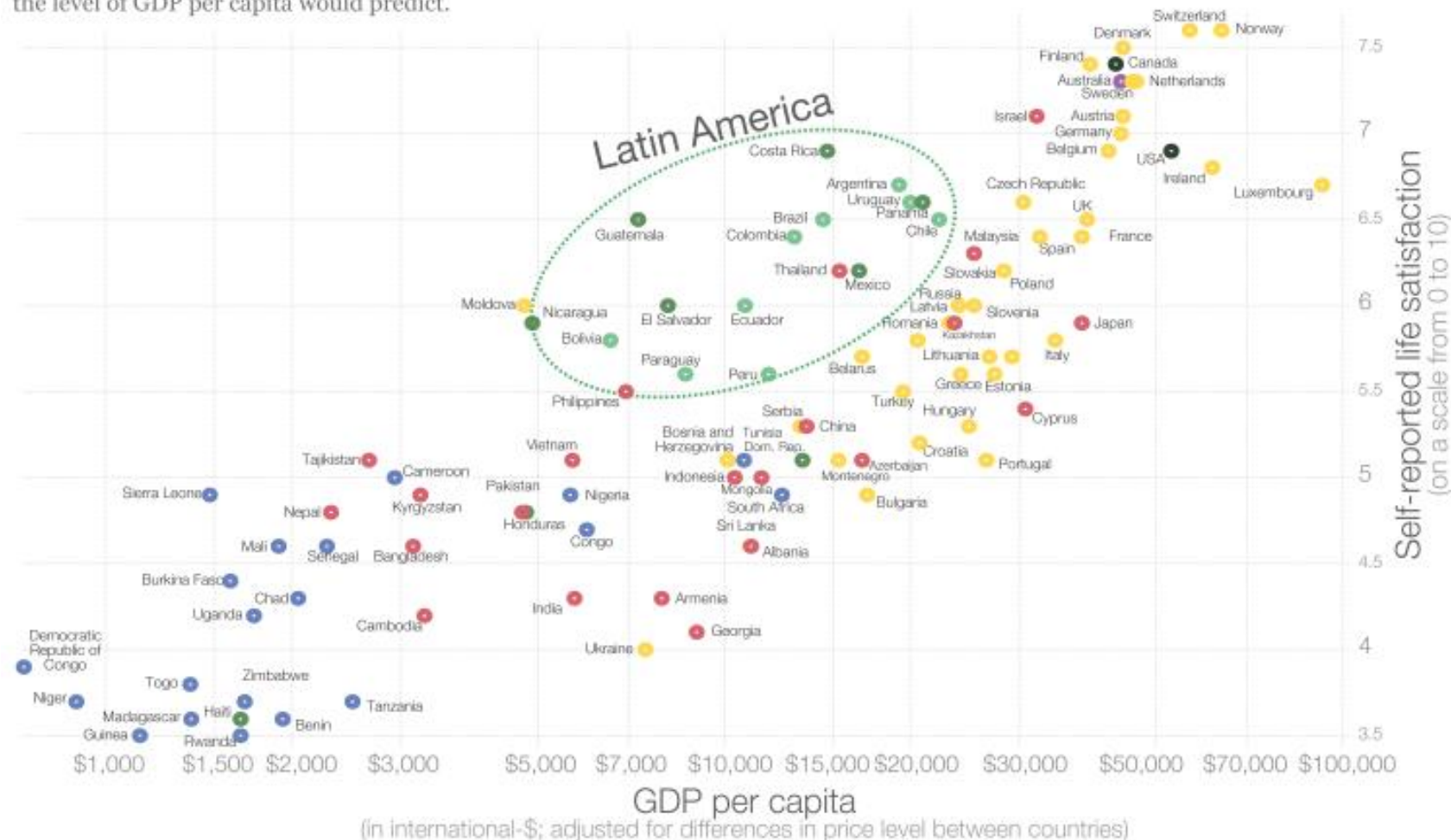
- Erik Lindqvist, Robert Östling, David Cesarini, NBER Working Paper No. 24667, 2018.
- 3,000 Swedish lottery winners, who had collectively won \$277 million in various lotteries 5 to 22 years earlier
- → Relative to matched controls, large prizes were linked to high levels of life satisfaction that persisted for more than a decade
- → effects on happiness and mental health were smaller.

But Culture Too

Self-reported life satisfaction vs GDP per capita, in 2015

The color represents the continent of the country. People in many Latin American countries report higher life-satisfaction than the level of GDP per capita would predict.

Our World
in Data



Can money buy happiness?

On The Long Run: No

Happiness and Real GDP per Capita, United States, 1972-2002 (Easterlin and Angelescu, 2007)

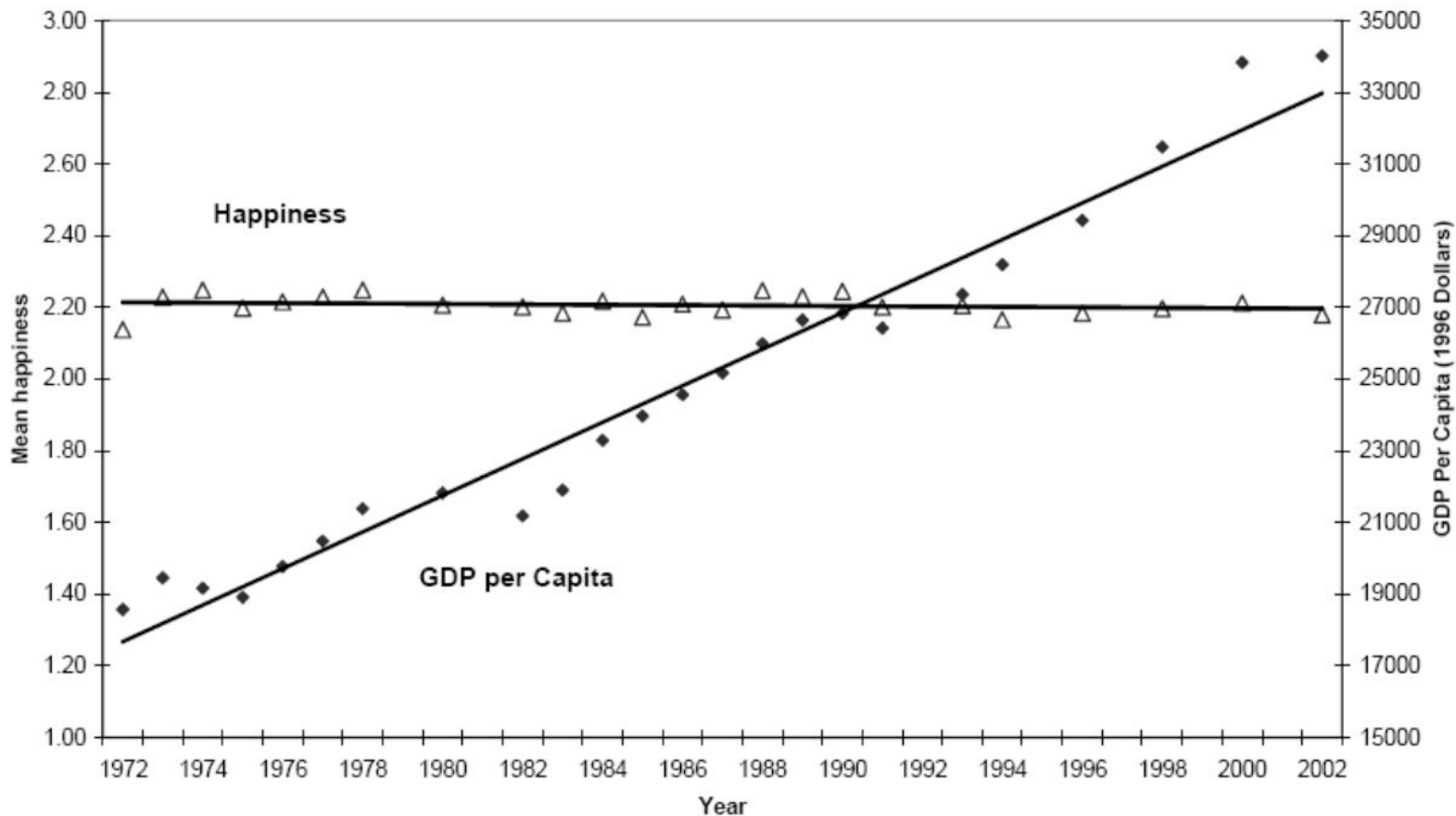
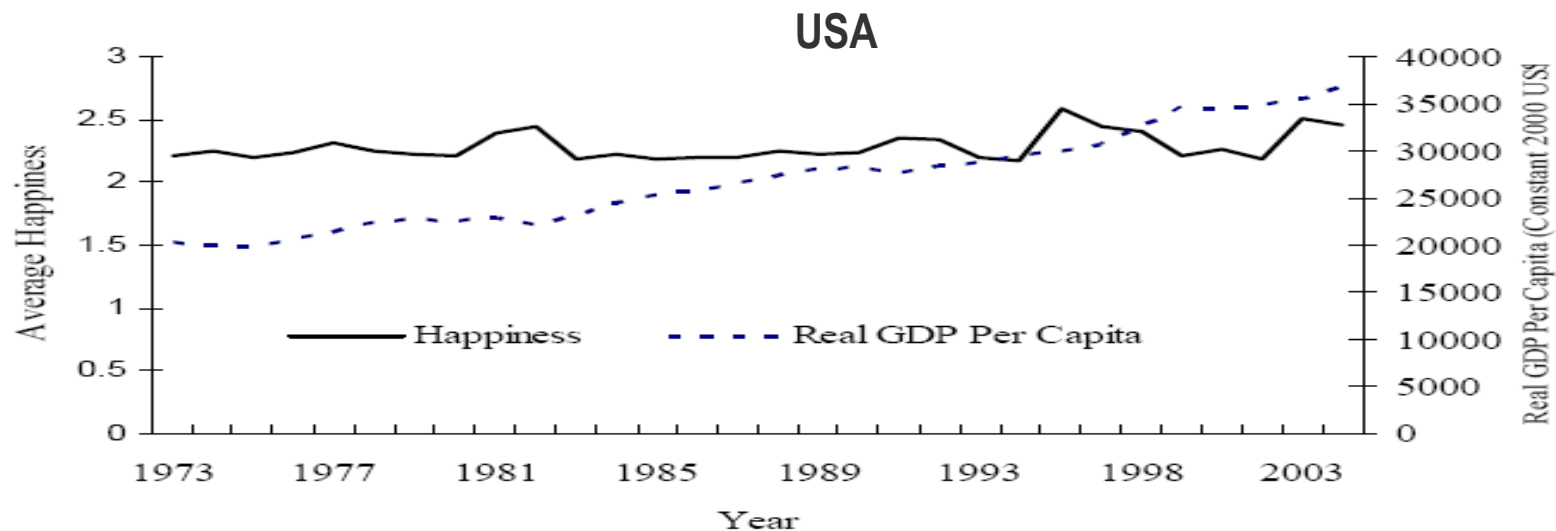
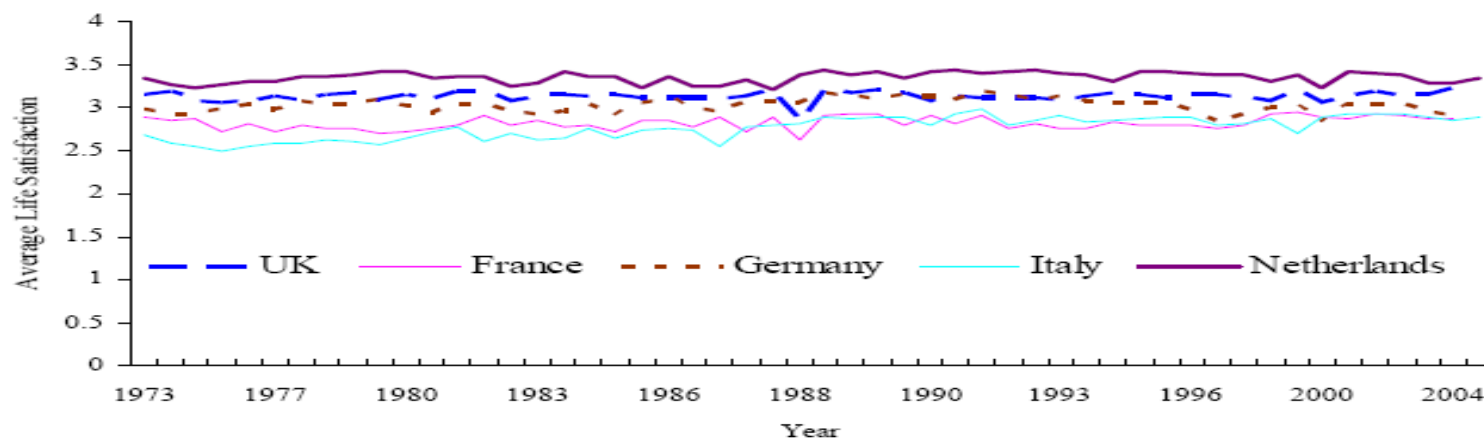


FIGURE 1: Happiness and Real GDP Per Capita in the US, 1973-2004⁵



Europe

FIGURE 2: Life Satisfaction in Five European Countries, 1973-2004⁶



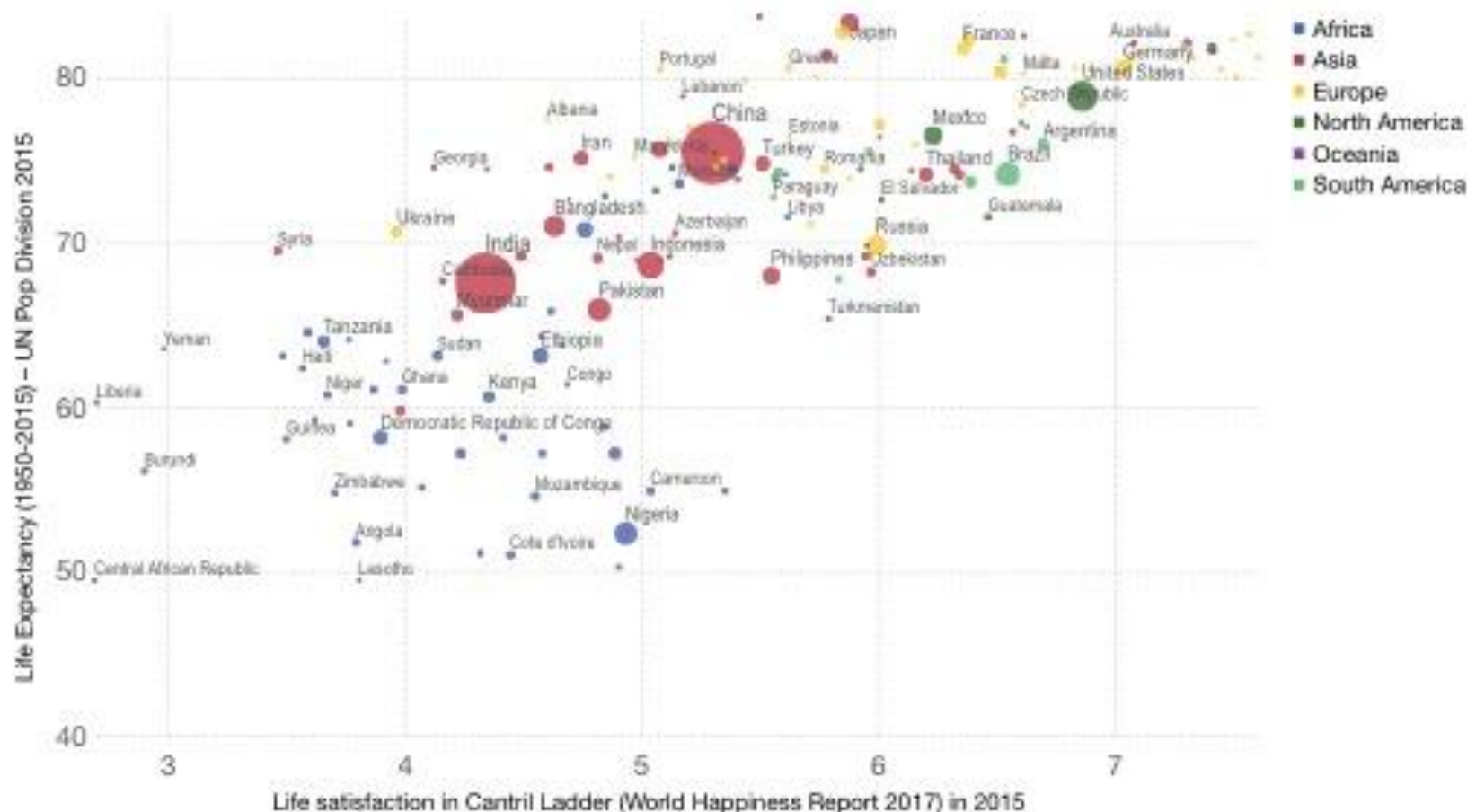
⁵ Source: World Database of Happiness, and Penn World Tables. Average responses to the following question: 'Taken all together, how would you say things are these days? Would you say that you are...?' Responses are coded as (3) Very Happy, (2) Pretty Happy, (1) Not too Happy. Happiness data drawn from the General Social Survey.

⁶ Source: World Database of Happiness. Average responses to the following question: 'On the whole how satisfied are you with the life you lead?'. Responses are coded as (4) Very Satisfied, (3) Fairly Satisfied, (2) Not Very Satisfied, and (1) Not at all Satisfied. Life satisfaction data drawn from the Eurobarometer Survey.

And it is strange because...

Life satisfaction vs Life expectancy, 2015

The vertical axis shows life expectancy at birth. The horizontal axis shows self-reported life satisfaction in the Cantril Ladder (0-10 point scale with higher values representing higher life satisfaction).



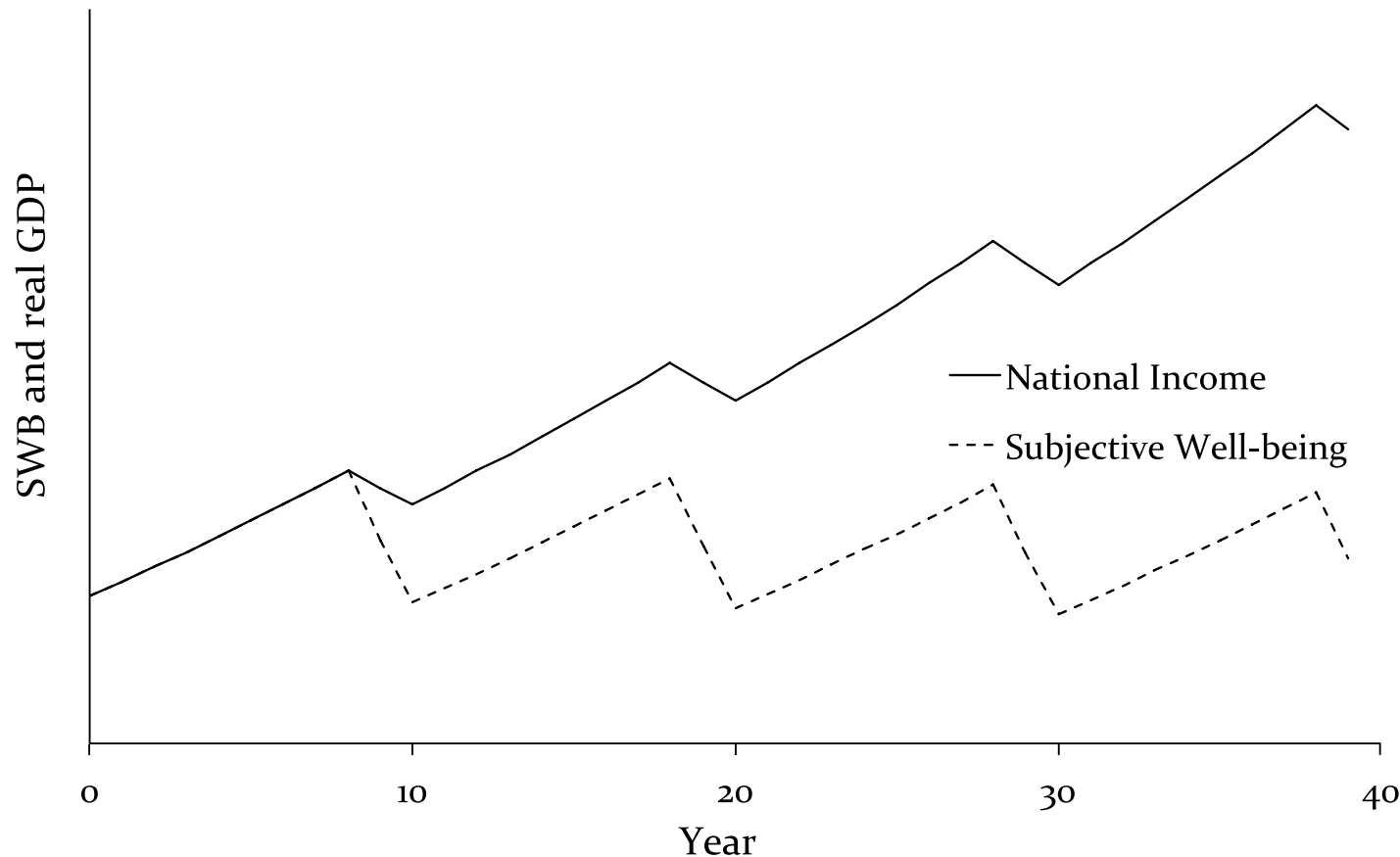
Source: World Happiness Report (2017), Life Expectancy (1950-2015) – UN Population Division (2015)
OurWorldInData.org/bonheur-et-satisfaction/ • CC BY-SA

**What destroys the link between money
and happiness?**

And can digital technology help?

1) Loss-Aversion

Figure 2: Theoretical representation of the asymmetric experience of positive and negative growth over the business cycle



De Neve Jan-Emmanuel, George W. Ward, Femke De Keulenaer, Bert Van Landeghem, Georgios Kavatsos, Michael I. Norton (2016)

Can the digital economy help smooth the business cycle?

- Better previsions of economic outlook, business cycle and crises
- Better insurance devices

2) Adaptation

Leyden school (van Praag, Kapteyn, 1970)

✓ **“Minimum income question”**: *“What household income per month would you consider an absolute minimum in order to make ends meet and without running into debt even if you reduce your needs to a minimum? (We do not only mean housekeeping allowance but all essentials, including insurance, rent, taxes and so on).”*

→ A \$1 increase in household income leads to a 60 cents increase (within about 2 years) in the income that individuals consider to be ‘a minimum.

✓ Hence, 60% of the welfare effect of income is dissipated **ex post** by adaptation and higher aspirations of agents.

Adaptation and the Digital Economy

- If digital technology makes people more impatient, does this accelerate adaptation too?
- How fast do people adapt to digital improvements?
- Is the digital economy going too fast for humans?

3) Comparisons

- People care only about relative income, not the absolute level of income
- (Also true for many dimensions of life, not only income)



An example of Comparisons with Digital Technology

Digital Transparency, Income Comparisons and Happiness

- Ricardo Perez-Truglia (UCLA)
- Information about gross taxable income was made publicly available and easily accessible for all Norwegians with Internet access since 2010.
- This event made individuals more likely to observe the incomes of others and more likely to be observed by others.
- Natural Experiment.

Figure A.1: Search Tool in skattelister.no as of June 16, 2010 (Source: web.archive.org)

VG NETT SKATTELISTER.NO

PERSONSØK Søk
Klikk her for avansert søk

SE TOPPLISTENE Postnummer: Vis Fødselsår: Vis Fylke: Hele Norge Vis

AKERSHUS

- [Asker](#) • [Enebakk](#) • [Hurdal](#) • [Nesodden](#) • [Skedsmo](#) • [Vestby](#)
- [Aurskog-Høland](#) • [Fet](#) • [Lørenskog](#) • [Nittedal](#) • [Ski](#) • [Ås](#)
- [Bærum](#) • [Frogn](#) • [Nannestad](#) • [Oppegård](#) • [Sørum](#)
- [Eidsvoll](#) • [Gjerdrum](#) • [Nes](#) • [Rælingen](#) • [Ullensaker](#)

AUST-AGDER

- [Arendal](#) • [Evje og Hornnes](#) • [Iveland](#) • [Valle](#)
- [Birkenes](#) • [Froland](#) • [Lillesand](#) • [Vegårshei](#)
- [Bygland](#) • [Gjerstad](#) • [Risør](#) • [Åmli](#)
- [Bykle](#) • [Grimstad](#) • [Tvedestrand](#)

BUSKERUD

DINE SISTE VISTE PROFILER

Laster profiler...

TOPPLISTER

- [Nasjonale topplister](#)
- [Akershus](#)
- [Aust-Agder](#)
- [Buskerud](#)
- [Finnmark](#)
- [Hedmark](#)
- [Hordaland](#)
- [Møre og Romsdal](#)

Figure A.2: Search Tool in nrk.no/skatt as of March 31, 2009 (Source: web.archive.org)

NRK Nyheter Skattelister

Nyhetsåret 2008

PERSONSØK 2007 FIRMASØK 2007 >> GÅ TIL LIKNINGSÅRET 2006

Førenavn **Etternavn** **Sortering**

Fylke **Skattekommune**

Alder mellom og

[Søketips](#) [Gå til avansert søk](#) **Søk**

TOPPLISTER - SKATT 2007

Sjå topplistene for alle fylke, kommunar og postnummer.

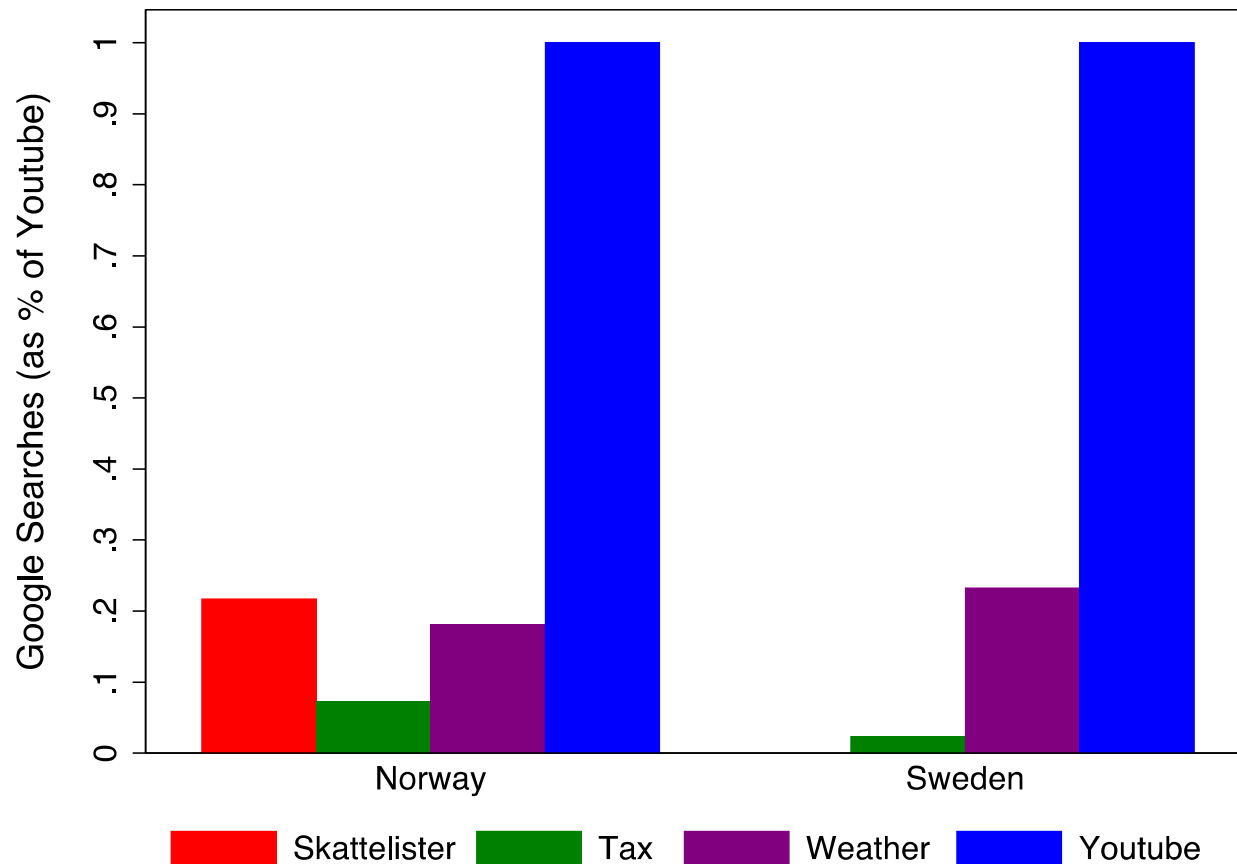
Fylke

Skattekommune

eller postnr **VIS**

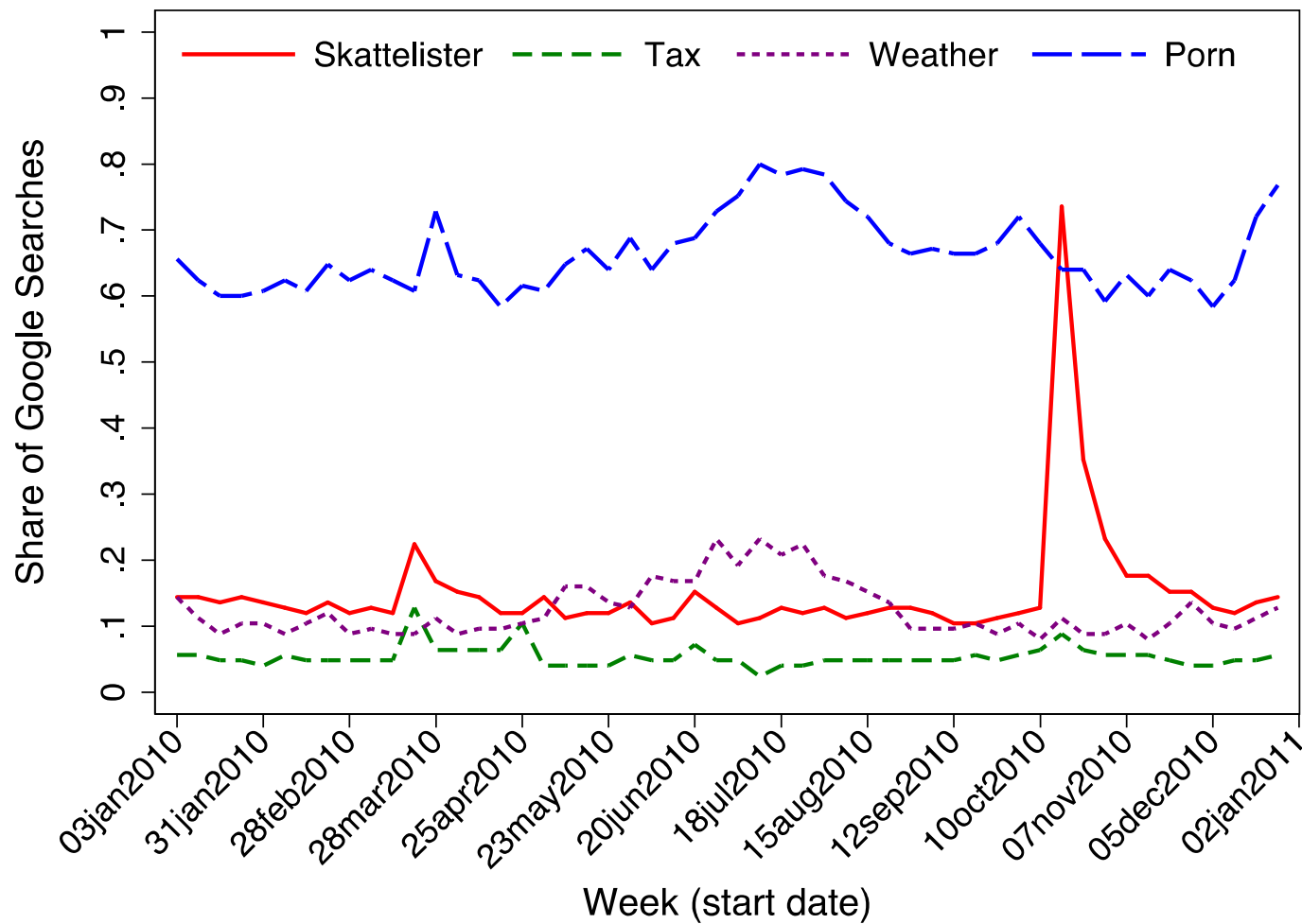
Interest in Skattelister in 2010 According to Google Search Data

a. 2010 Totals



Interest in Skattelister in 2010 According to Google Search Data

b. Weekly Time Series during 2010



Digital Transparency and Happiness

- Survey data from 1985-2013 including measures of subjective well-being.
- → Episode of transparency magnified the association between happiness and income
- Effect appeared sharply after the policy was implemented
- Affected primarily individuals with high Internet use.

End of the Fever

- 2014: new regulation
- Those who wish to consult other people's taxable income must identify themselves. End of one-sided anonymity
- → sudden stop of the searches
- Digital economy makes information more transparent and easily accessible
- but information should be transparent at both ends of a relation

Rocardo PEREZ-TRUGLIA and Julie CULLEN:

How Much Does Your Boss Make? The Effects of Salary Comparisons

- horizontal versus vertical comparisons
- while higher perceived peer salary decreases effort, output and retention,
- higher perceived manager salary has a positive effect on those same outcomes.

Digital Economy => More or Less Comparisons ?

- Greater transparency → easier to compare
- More visibility and conspicuous consumption via social networks?
- Digital economy → Expansion of shared facilities (bicycles-sharing system, car-sharing system) → less conspicuous consumption.