

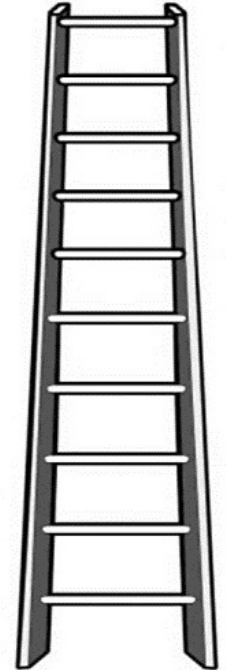


# Mobility and Liveability

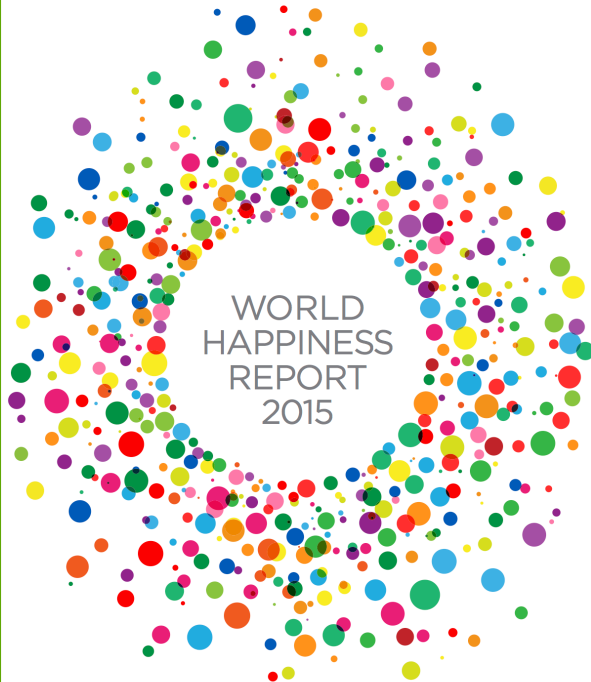
Dr. Alex Erath  
Senior Researcher, Future Cities Laboratory, Singapore

# Subjective Well-being

Best possible life

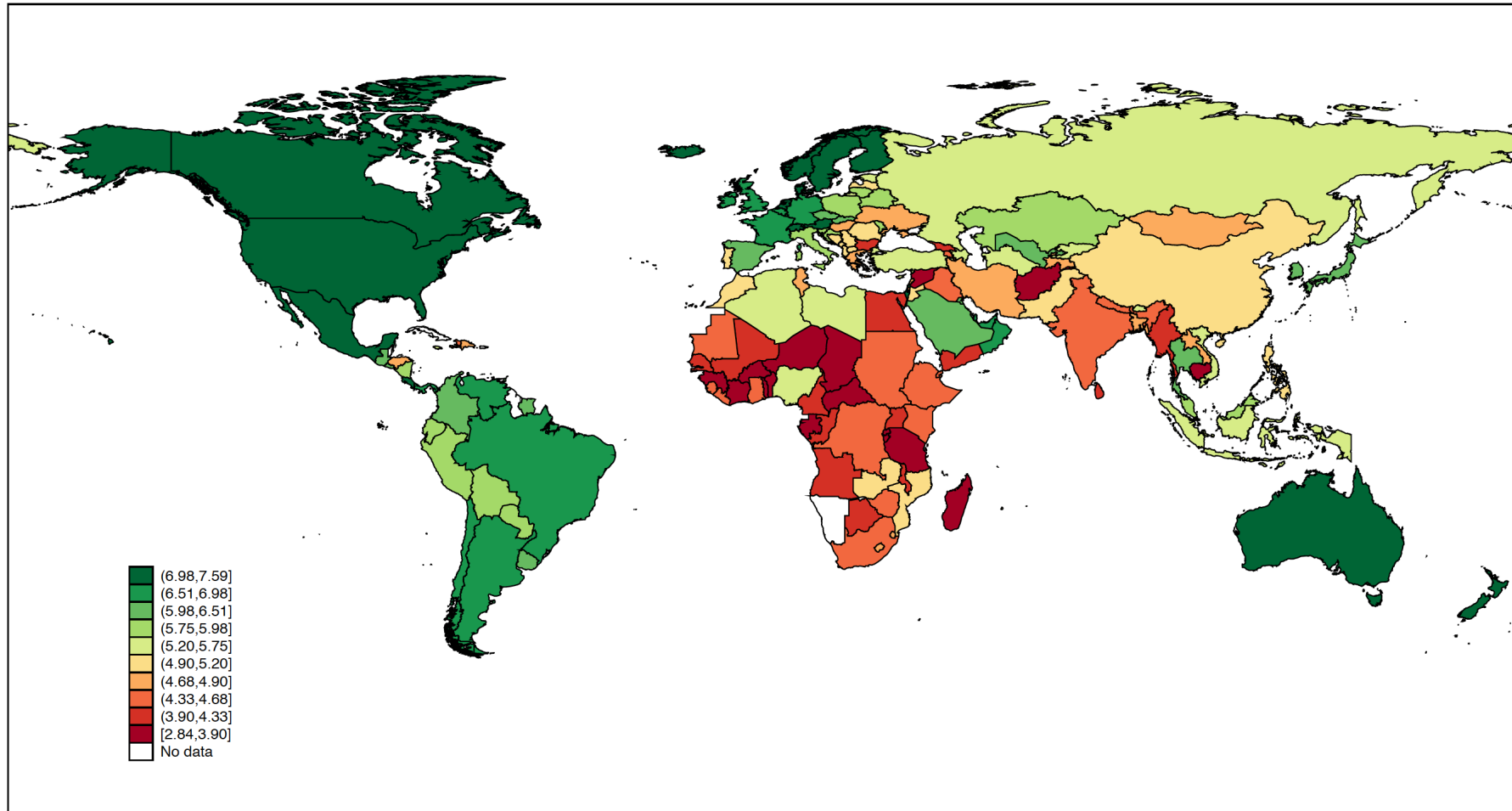


Worst possible life



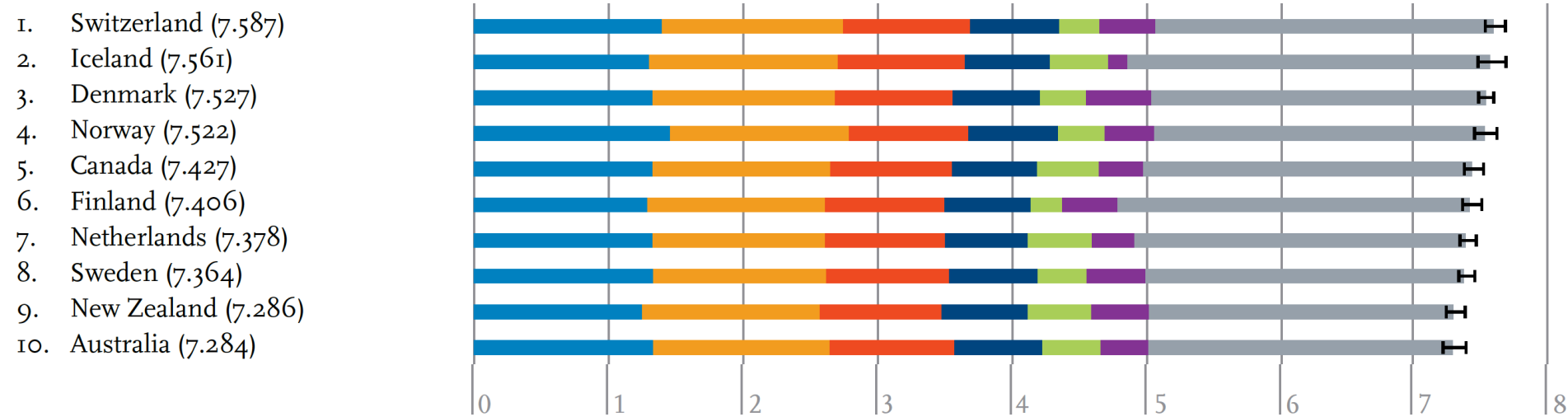
Edited by John Helliwell, Richard Layard and Jeffrey Sachs

Helliwell, John, Richard Layard and Jeffrey Sachs  
(eds.) (2015). *World Happiness Report 2015*. New  
York: Sustainable Development Solutions Network.



Helliwell, John, Huang Haifang and Shun Wang (2015). 'The Geography of World Happiness', in *World Happiness Report 2015*, eds. John Helliwell, Richard Layard, and Jeffrey Sachs. New York: Sustainable Development Solutions Network.

# What explains well-being?



GDP (log)

Social support

Life expectancy

Freedom to make life choices

Generosity

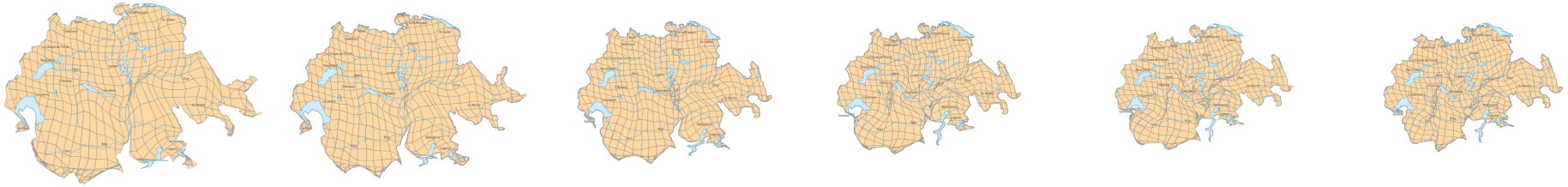
Perception of corruption

Constant and residual

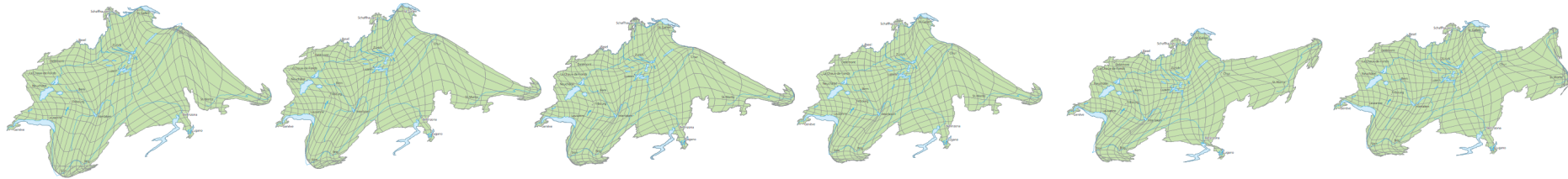


# Shrinking Switzerland

## Car



## Public transport



1950

1960

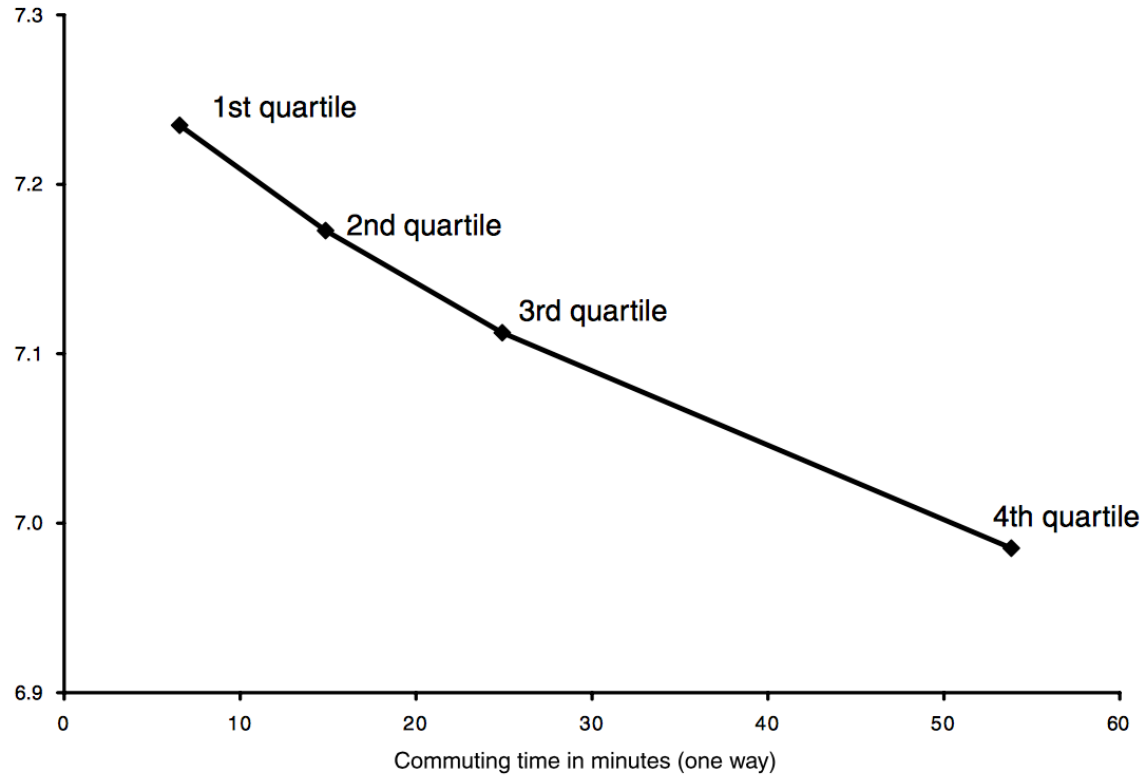
1970

1980

1990

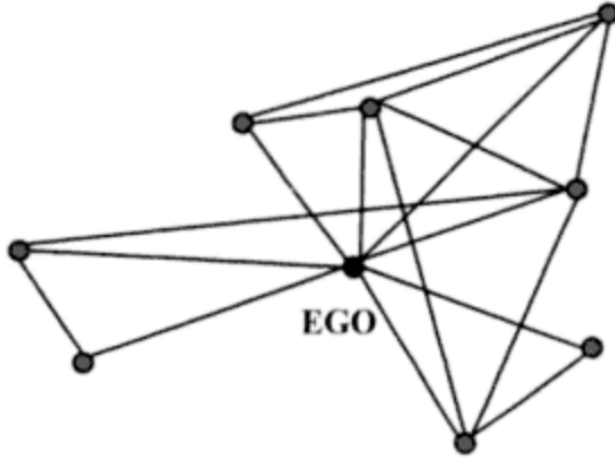
2000

# Happiness of commuters

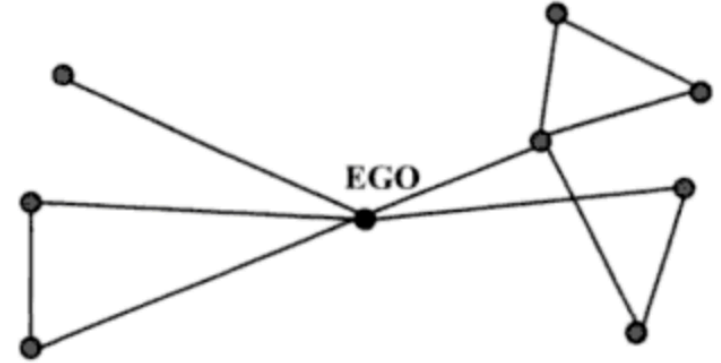


Stutzer, Alois and Bruno S. Frey (2008). 'Stress That Doesn't Pay: The Commuting Paradox\*', Scandinavian Journal of Economics 110(2): 339–366.

# Impact of commuting on social networks



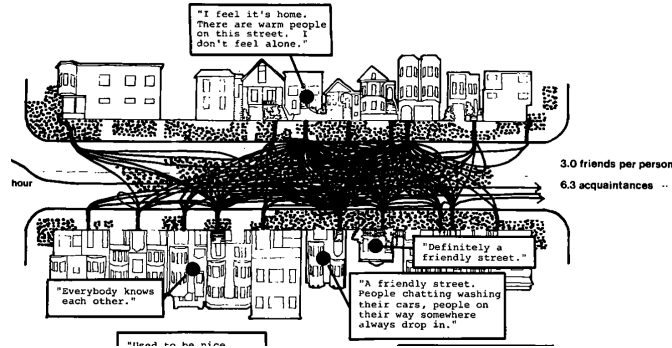
Binding social capital:  
Typical for short distance commuters



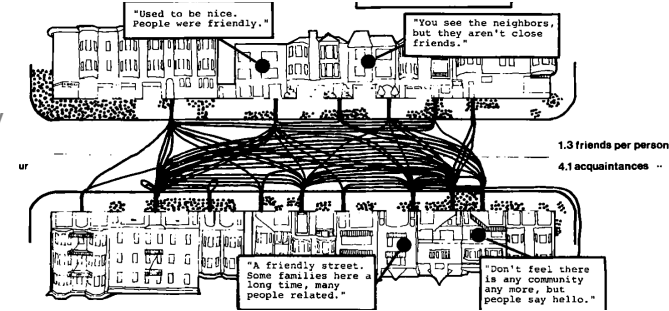
Bridging social capital:  
Typical for long distance commuters

# The environmental quality of city streets

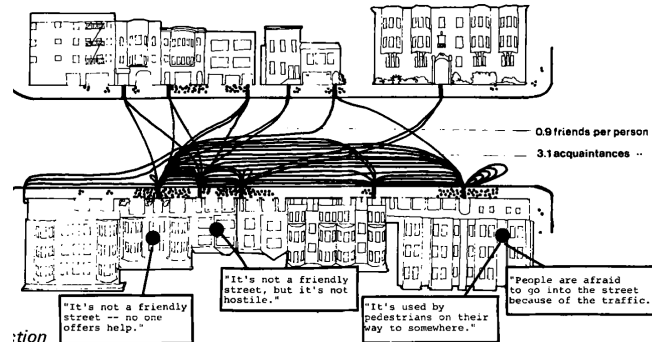
Light traffic  
2000 veh/day  
20-30 km/h



Moderate traffic  
8000 veh/day  
40 km/h



Heavy traffic  
16000 veh/day  
60 km/h



# Lethal side of mobility



## Annual road fatalities<sup>1</sup>

Worldwide: 1.24 Mio

Switzerland (2013): 269

## Traffic related pollution

In Switzerland, annually:

Pre-mature mortality: 1800

Hospital admissions: 2300

Restricted activity days: 1.5 millions

WHO, ed. (2013). "Global Status Report on Road Safety 2013: supporting a decade of action" (PDF) (official report). Geneva, Switzerland: World Health Organisation (WHO)

Kuenzli, Nino, Reinhard Kaiser, Sylvia Medina, M. Studnicka, Olivier Chanel, Paul Filliger, Max Herry, F. Horak, V. Puybonnieux-Textier, Philippe Quénel and others (2000). 'Public-Health Impact of Outdoor and Traffic-Related Air Pollution: A European Assessment', The Lancet 356(9232): 795–801.



# Freedom of life choices

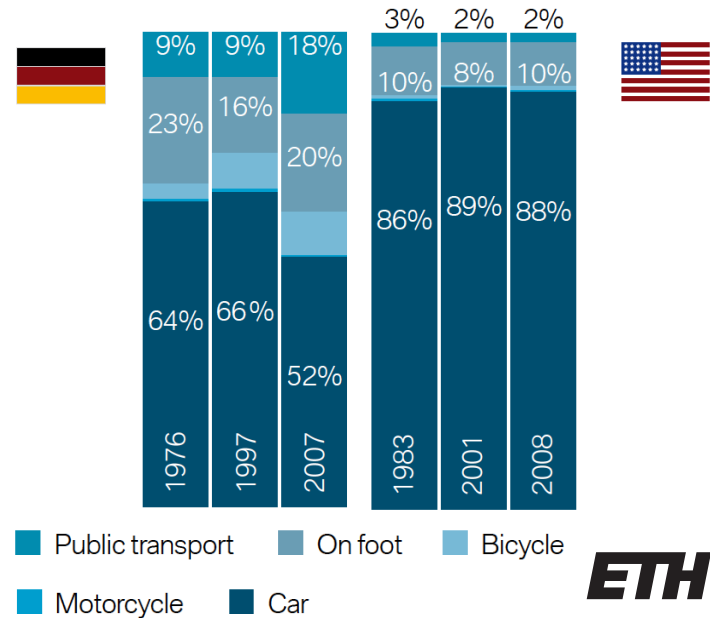


People have heterogeneous preferences

Is the built environment capable of fulfilling them?

Have we reached peak car?

Trip mode shares of young adults (20-29)



Feige, Irene and Tobias Kuhnrich (2013). "Mobility Y" – The Emerging Travel Patterns of Generation Y". Munich: Institute for Mobility Research (ifmo).



# Human mobility for livable cities

Cyclists are the happiest commuters

Walking and cycling improve public health

Walking, cycling and public transport are more space efficient and economical than motorised transport

But all those modes impose demands on urban design.



Positive response:  
94% of passers by & 60%  
of businesses find  
situation improved



