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## Regional Science: The Science of the Pursue of Subjective Well-being in Space - Theory, Policy, Practice and Manfred

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Presentation for the Workshop to celebrate Professor Manfred M. Fischer's Retirement, Vienna Sept. 20-22, 2015

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Motivation for this topic: Manfred and Well-being

- > Manfred claims that he only believes in objective measures of welfare: GDP, income, unemployment
- > We claim that subjective measures are also important and cannot be ignored any more: happiness, well-being, quality of life, etc.
- > **Outline: Theory, Practice, Policy & Manfred**

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# Theory

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## Common Definition Regional Science

- > "Any social science analysis that has a spatial dimension" (Wikipedia)
- > The social sciences are concerned with the behavior of individual human actors, their institutions and the aggregation of their actions in different institutional frameworks
- > Hence:  
**Regional Science deals with behavior, especially socio-economic behavior in the spatial context**

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## Paradigm

- > **Definition:** a set of distinct concepts to approach and analyze a phenomenon
- > Every social science has a paradigm
- > *Economics:* utility maximization (consumers) or profit maximization (producers)
- > *Sociology:* behavior of individuals and their institutions as determined by their positions in society
- > *Psychology:* behavior of individuals and their aggregates as determined by mind and perceptions

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## Possible Regional Science Paradigms (i)

- > (i) Space?
- > Is not a paradigm (i.e. a way of looking at a problem, like utility maximization)
- > Alternatively:
- > (ii) One of the social sciences paradigms?
- > Hampers the distinction of Regional Science from the other social sciences:
- > Every Regional Science analysis can be claimed by one of the social sciences



## Possible Regional Science Paradigms (ii)

- > Alternatively:
- > (iii) Overarching paradigm that captures the denominator of the paradigms of the constituting social sciences:  
**Regional Science: The Science of the Pursue of Subjective Well-being in Space**



## Consumer Theory: McFadden (2013)

*“The challenge facing economic consumer theory is to utilize the disparate measurements and experimental methods that have become available to synthesize a **new behavioral science of pleasure** that retains the **quantitative, predictive features of neoclassical theory** in the economics settings where it works well, and extends these features into areas of individual sensation of **well-being** and choice in the context of social network information and approval, so that the theory can better predict the impact of novel economic policies on **consumer well-being**”*



## Pleasure

- > Pleasure is a synonym for **subjective well-being** (SWB)
- > Subjective well-being based on *experienced* utility (vs decision utility)
- > Subjective well-being derived from self reports
- > **Regional Science: The Science of the Pursue of Subjective Well-being in Space**



## Single indicator (particularly per capita regional income) or multi-dimensional well-being?

- > Sen (1973, 1985), Mantou et al. (1992), Atkinson and Bourguignon (1982), Ram (1982) Atkinson (2003):
- > Single indicators Fallacy:  
 Aggregation of the various welfare components leads to loss of information on their relative importance
- > At odds with comprehensive Subjective Well-being



## Individual and Regional Well-being

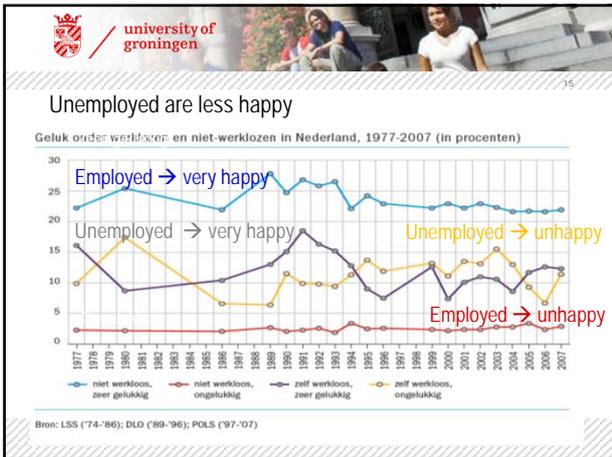
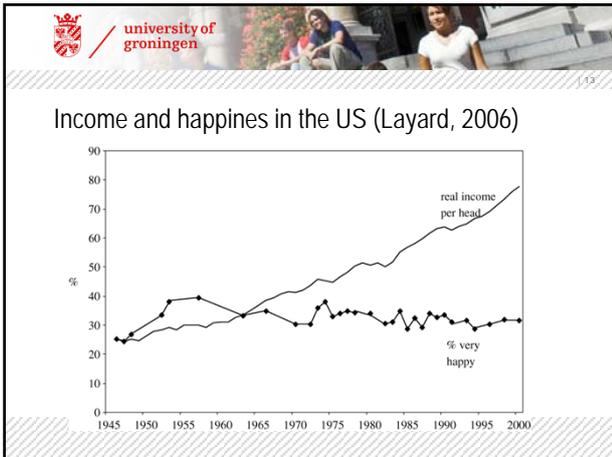
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>&gt; The problem of <b>definition</b></li> <li>&gt; Many terms for more or less the same thing (how well one's life is going):</li> <li>- Quality of life</li> <li>- Welfare</li> <li>- Health</li> <li>- Happiness</li> <li>- Pleasure</li> <li>- Subjective well-being</li> </ul> | <p>short term: emotional feelings of happiness</p> <p>long term: life satisfaction</p> <p>selection from a whole range of objective and subjective indicators → composite index →</p> |
|--|---|

Which spatial scale?

Translation to policy?



# Practice



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- People's Well-being: changing preferences
- |  |  |
|--|--|
| <p><i>Objective measures</i></p> <ul style="list-style-type: none"> <li>&gt; Life expectancy</li> <li>&gt; Mortality rates</li> <li>&gt; Poverty</li> <li>&gt; Crime</li> <li>&gt; Income</li> <li>&gt; Un-/employment</li> <li>&gt; Education</li> <li>&gt; Gender balance</li> <li>&gt; Working hours</li> </ul> | <p><i>Subjective measures</i></p> <ul style="list-style-type: none"> <li>&gt; Health perception</li> <li>&gt; Access to services</li> <li>&gt; Material deprivation</li> <li>&gt; Safety and trust</li> <li>&gt; Life satisfaction</li> <li>&gt; Happiness</li> <li>&gt; Capabilities</li> <li>&gt; Equal opportunities</li> <li>&gt; Work life balance</li> </ul> |
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From Individual to Regional Well-Being

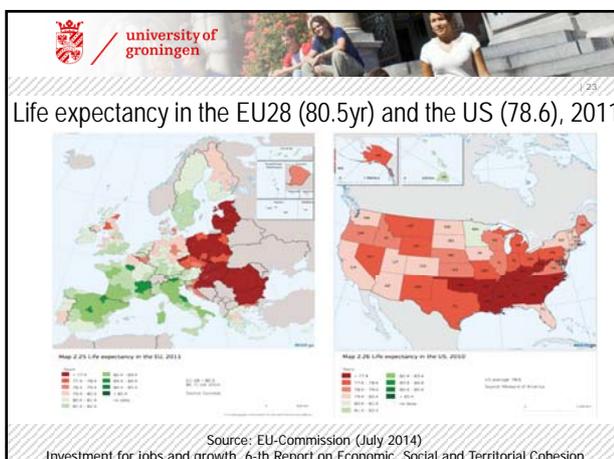
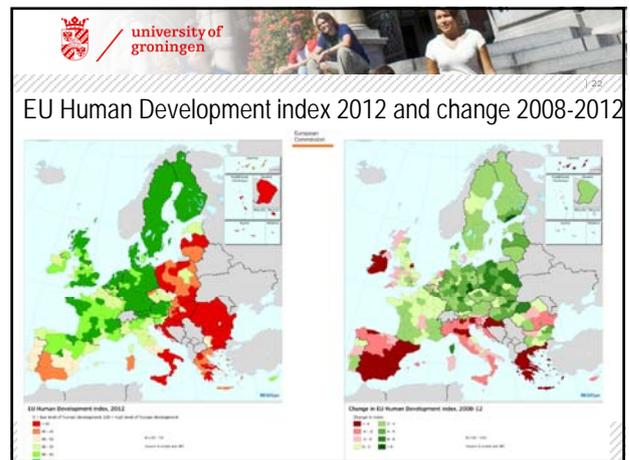
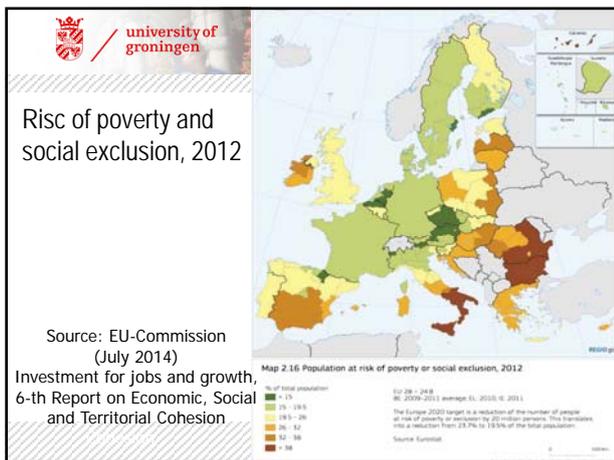
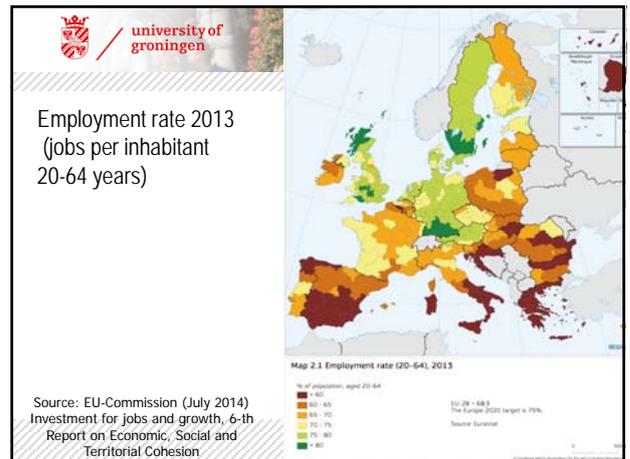
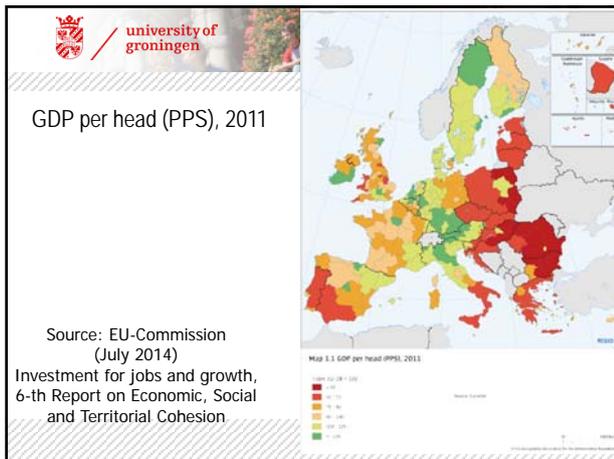
- > Adequate regional analysis requires micro foundation
- > Foundation based on the definition of Regional Science:
- > Multi-dimensional rather than single indicator measurement of place based (subjective) well-being

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Table 1 Index categories used by Morais, Mercer, Liveability Index, OECD Better Life Index and International Living.

Index	Morais et al. (2011) Mercer Quality of Living Index (2010)	Liveability Index of the Economist Intelligence Unit (2012a) 5 categories and 23 indicators	OECD Better Life Index	International Living (2010)
Aggregation level	regions	countries	countries	countries
Factors/categories	<ul style="list-style-type: none"> <li>• Political and social environment</li> <li>• Economic environment</li> <li>• Socio cultural environment *</li> <li>• Health issues</li> <li>• Schools and education</li> <li>• Public services and transport</li> <li>• Consumer goods *</li> <li>• Recreation</li> <li>• Housing</li> <li>• Natural environment</li> </ul>	<ul style="list-style-type: none"> <li>• Stability</li> <li>• Health care</li> <li>• Culture &amp; environment</li> <li>• Education</li> <li>• Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Housing</li> <li>• Income</li> <li>• Jobs</li> <li>• Community</li> <li>• Education environment</li> <li>• Civic engagement</li> <li>• Health</li> <li>• Life satisfaction</li> <li>• Safety</li> <li>• Work-life balance</li> </ul>	<ul style="list-style-type: none"> <li>• Cost of living</li> <li>• Culture and leisure</li> <li>• Economic environment</li> <li>• Freedom</li> <li>• Health</li> <li>• Infrastructure</li> <li>• Safety and risk</li> </ul>

\* categories only used by Mercer



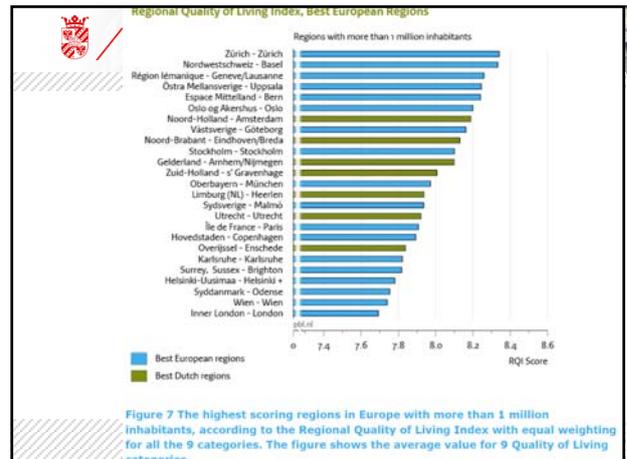
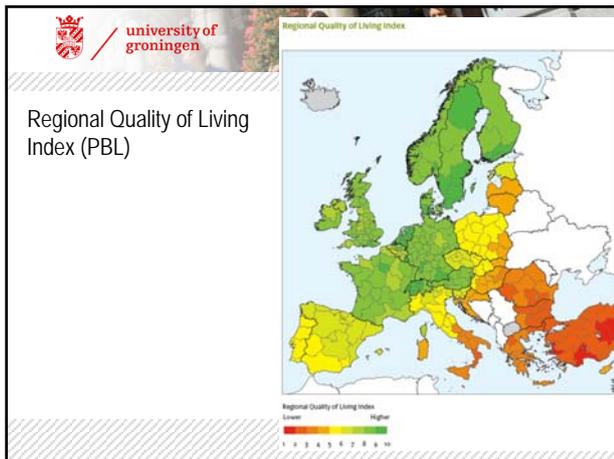
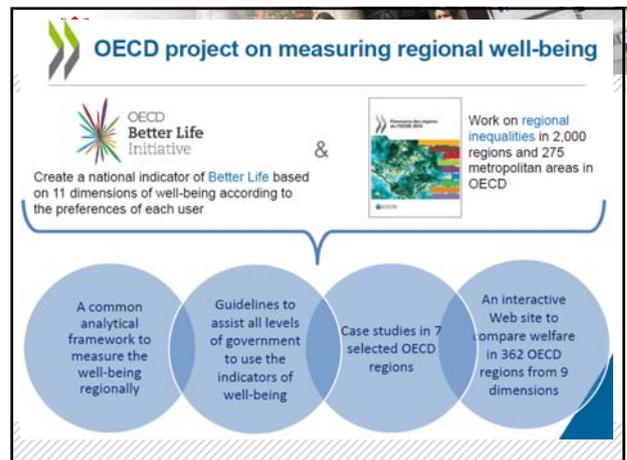
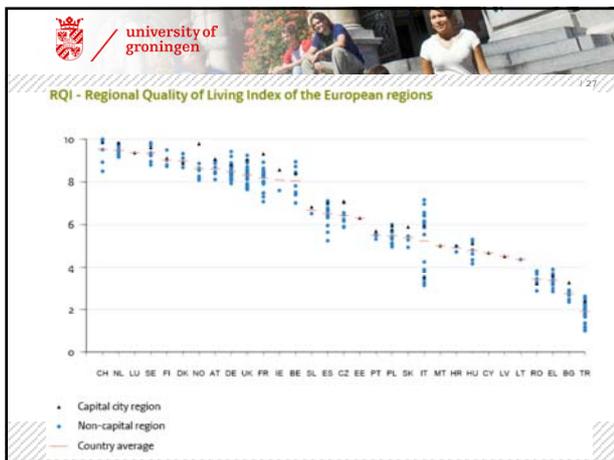


Figure 7 The highest scoring regions in Europe with more than 1 million inhabitants, according to the Regional Quality of Living Index with equal weighting for all the 9 Quality of Living



How's Life? MEASURING WELL-BEING

How Was Life? GLOBAL WELL-BEING SINCE 1970

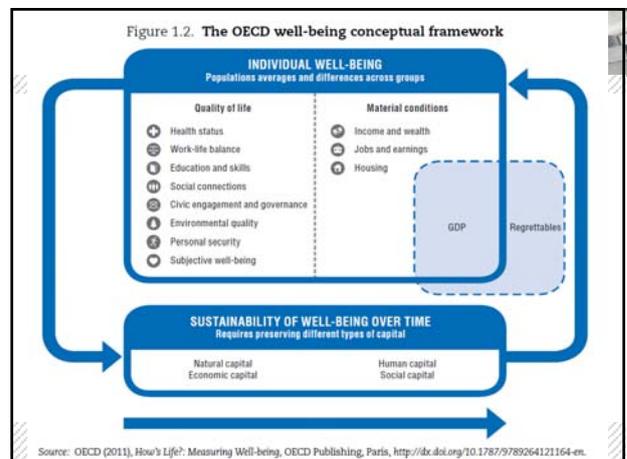
Using well-being indicators for policy making: Region of Southern Denmark, Denmark

Case studies

Using well-being indicators for policy making: Region of the North of the Netherlands, Netherlands

How's Life? 2013 MEASURING WELL-BEING

How's Life in Your Region? MEASURING REGIONAL AND LOCAL WELL-BEING FOR POLICY MAKING



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**A multidimensional set of indicators**

Dimensions	Regional indicators
Income	<ul style="list-style-type: none"> <li>Income levels: Mean and median household market and disposable income</li> <li>Income distribution: Gini index and Quintile share ratio (SRU/SDI) for disposable and market income</li> <li>Relative poverty: Headcount ratios for disposable and market income, with national and regional poverty lines</li> </ul>
Jobs	<ul style="list-style-type: none"> <li>Employment rate and part-time employment</li> <li>Unemployment, Long-term unemployment and Youth unemployment</li> <li>Women participation rate</li> </ul>
Housing	<ul style="list-style-type: none"> <li>Number of room per person</li> </ul>
Health status	<ul style="list-style-type: none"> <li>Life expectancy at birth</li> <li>Age adjusted mortality rate</li> </ul>
Education and skills	<ul style="list-style-type: none"> <li>Educational attainments</li> <li>Competence of 15-year old students (PISA) [only few countries]</li> </ul>
Environmental quality	<ul style="list-style-type: none"> <li>Air quality (PM<sub>2.5</sub>)</li> <li>Loss of forest and vegetation</li> <li>Municipal waste recycled [only few countries]</li> <li>Access to green space</li> </ul>
Quality of life	<ul style="list-style-type: none"> <li>Personal security               <ul style="list-style-type: none"> <li>Homicide rate</li> <li>Car theft rate</li> <li>Mortality due to transport accidents</li> </ul> </li> <li>Civic engagement               <ul style="list-style-type: none"> <li>Voter turnout</li> </ul> </li> <li>Accessibility to services               <ul style="list-style-type: none"> <li>Broadband connection</li> <li>Unmet medical needs</li> <li>Share of people having access to public transport [only few countries]</li> <li>Average distance and travel time from the closest hospital [only few countries]</li> </ul> </li> </ul>

**Why look at well-being at local and regional level? (1/3)**

Well-being of people is affected by place-based characteristics

$$\text{People's well-being} = \text{Individual characteristics} + \text{Place-based factors}$$
Material living conditions (e.g. jobs, income) = e.g. family, education, skills + e.g. regional labour pool, training, etc.

Not only bridging national & regional data but also contributing to policymaking. Top-down or bottom-up approach?

Measuring well-being for policy making is essentially a bottom-up approach. However, a general framework is needed (can be top-down)

The OECD provides:

- A common framework and guidelines on indicators (e.g. common set of indicators) – *Measuring the right things*
- Guidelines on how to implement the use of well-being in policy making (built bottom-up) – *Using indicators*

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**A regional well-being conceptual framework**

**Main features:**

- Measures well-being where people live
- Focus on outcomes rather than output
- Multidimensionality (9 dimensions: material conditions and quality of life)
- Focus on distributions of outcomes
- Look at complementarity across dimensions
- Assess how well-being changes over time (resilience, sustainability)
- It considers that well-being can be manageable to change by citizen governance and institutions

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Households with Broadband Access: overall the Netherlands does very well!

→ **But: spatial scale of measuring is important**

Households with broadband connection, 2013

Legend: 0-10, 11-20, 21-30, 31-40, 41-50, 51-60, 61-70, 71-80, 81-90, 91-100

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But: in some villages in peripheral lagging municipalities hardly access!

→ **Spatial scale of measuring is important**

**Breedbandsituatie Nederland**

Legenda:
 

- Voldoende Breedbandcapaciteit
- Probleemgebieden Breedband

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**Interactions between education and health: higher educated live longer a healthy life: years to live after 65 by education and gender**

Gender	Low	Medium Low	Medium High	High
Mannen	~8	~10	~11	~15
Vrouwen	~8	~11	~14	~16

Source: Centraal Bureau voor de Statistiek, 2010

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# Policy

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## Stakeholders involved in implementing regional well-being initiatives

How do we organise it? And with whom?

- Implementing this process of well-being metrics requires the involvement of relevant stakeholders and constructive interaction among them (e.g. coordination between levels of governments)
- Need to achieve continuity beyond political cycles

How do we know where we are, where we want to go and how to go there?

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## OECD-project 'How is life in your region?' Regional well-being measurement cycle: a possible sequencing of steps:

What do we think about that? What do we want? How to measure it? Where do we go? Where are we?

Indicators:

- Jobs
- Environment
- Income
- Education
- Health
- Safety
- Housing
- Acces to services
- Civic Engagement

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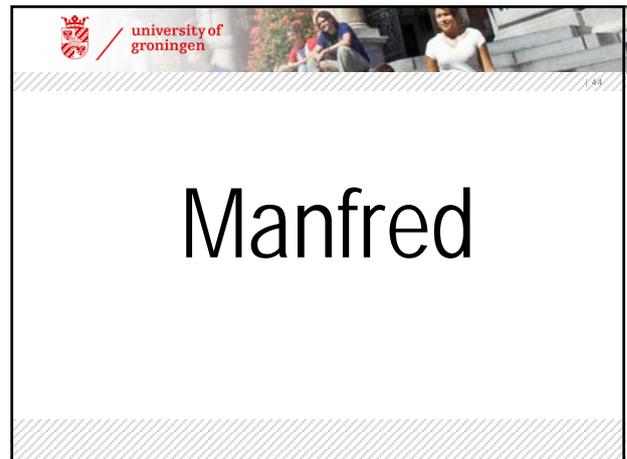
## Southern Denmark: the GOOD LIFE as an engine of growth

Figure 1. The region of Southern Denmark (TL2)

Note: The region of Southern Denmark contains one functional urban area (FUA) as identified by its methodology described in OECD (2012). This document and any maps included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and borders to the name of any territory, city or area.

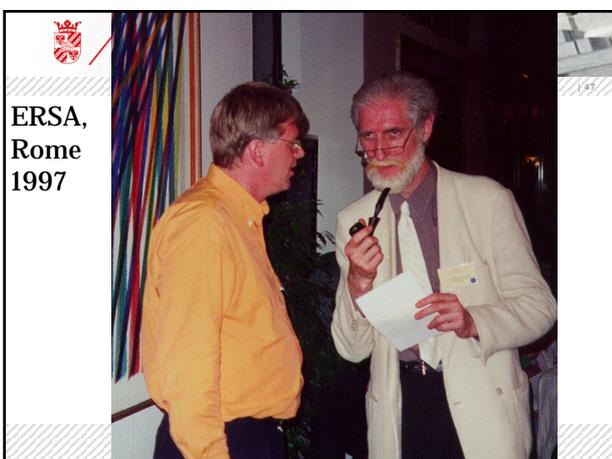
Source: OECD (2014), OECD Regional Statistics (Lindbeck), <http://dx.doi.org/10.1787/org.100000000000>

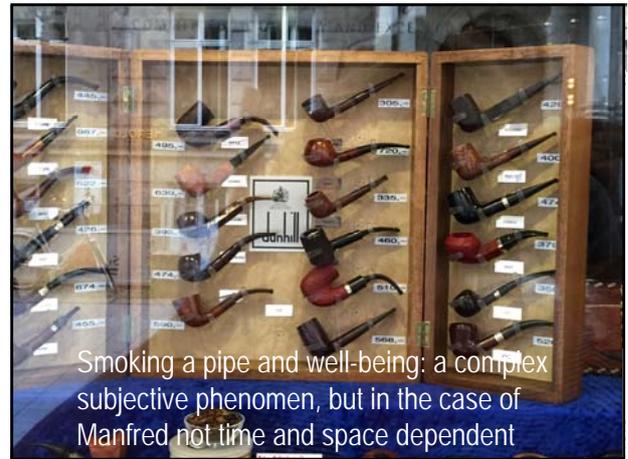




Motivation for this topic: Manfred and well-being

- › Manfred claims that he only believes in objective measures of welfare: GDP, income, unemployment
- › We claim that subjective measure are also important and cannot be ignored any more: happiness, well-being, quality of life
- › Prove: If I tell you I am happy, who are you to tell me that I am not happy (based on your "objective" measures)?
- › How about Manfred's well-being and preferences over time?





Smoking a pipe and well-being: a complex subjective phenomenon, but in the case of Manfred not time and space dependent


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### Conclusions

- › The paradigm of Regional Science: [The Science of the Pursue of Subjective Well-being in Space](#)
- › Defining well-being, quality of life, happiness, pleasure
- › Objective vs. subjective, single vs multi-dimensional indicators
- › Interaction between variables and space context (place based)
- › Measurement and spatial scale
- › Lessons for regional policy
- › Lessons for individual (ir)rational behavior
- › Lessons for Manfred?


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Thank you for your attention