

*Finland SITRA Lecture 2006*

# **Does Economic Growth Create Happiness?**

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**University of Warwick U.K.**

# **Economics is changing**

**Researchers are studying  
mental wellbeing.**

**We are drawing closer to  
psychology and medicine.**

**Can we learn how to ...**

**Can we learn how to ...  
make Finland happier?**



**Using random samples of individuals  
from many nations**

**Researchers have examined what  
influences the mental wellbeing of**

**(i) individuals**

**(ii) nations.**

## *A taste of research (1)*

**Happiness is high among:**

## *A taste of research (1)*

**Happiness is high among:**

**Women**

**People with lots of friends**

**The young and old**

**Married and cohabiting people**

**The highly educated**

**The healthy**

**Those with high income**

## *A taste of research (2)*

**Happiness is particularly low among:**



## *A taste of research (2)*

**Happiness is particularly low among:**

**The unemployed**

**Newly divorced and separated people**

## *A taste of research (2)*

**Happiness is particularly low among:**

**The unemployed**

**Newly divorced and separated people**

**and children have no effect on  
happiness**



## *A taste of research (3)*

**Economic growth does not make a country happier.**

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***and there is evidence that stress at work, and rates of depression, have been increasing in recent decades***

## *A taste of research (4)*

**Noise levels and environmental quality matter a lot to happiness.**

**Global warming makes  
these last two findings  
particularly important.**

## Statistical methods

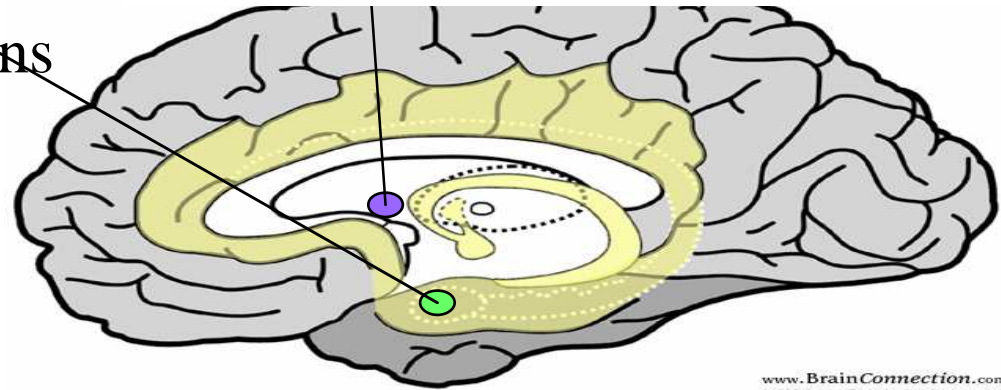
***But, how is it possible to study happiness and mental wellbeing in a systematic way?***

Self-reported happiness  
relates strongly to.....



Amygdala:  
emotions

Pleasure centre: septal area of  
the hypothalamus



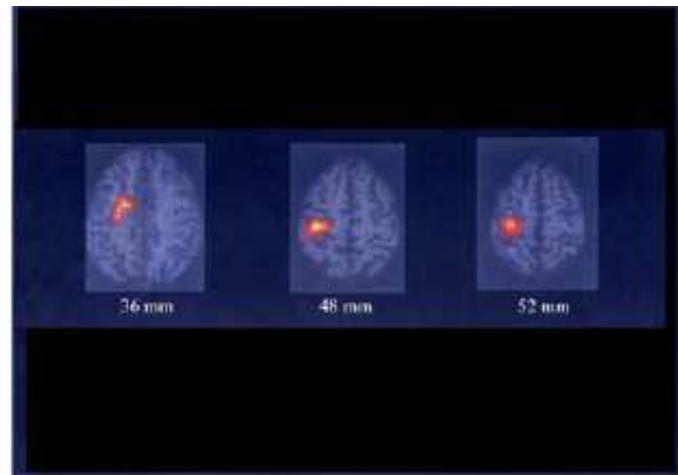
www.BrainConnection.com  
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- **activity in the brain's pleasure centres**
- **health, smiles, positive emotional arousal, and future intentions**

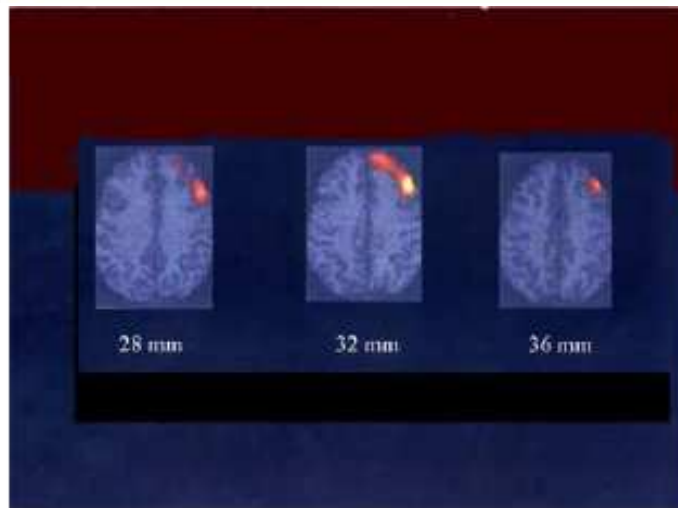


# Brain Responses in Two Pictures (MRI Scans)

Happy



Sad



Source: Richard Davidson, University of Wisconsin

***Reported happiness is  
correlated with...***

- **Person's assessment of happiness by friends and family**
- **Person's assessment of happiness by spouse**
- **Person's recall of good and bad events**
- **Heart rate and blood pressure measures response to stress**
- **The risk of getting coronary heart disease**

***Some cheery news:***

*Some cheery news:*

**In the western nations, most people are happy with their lives**

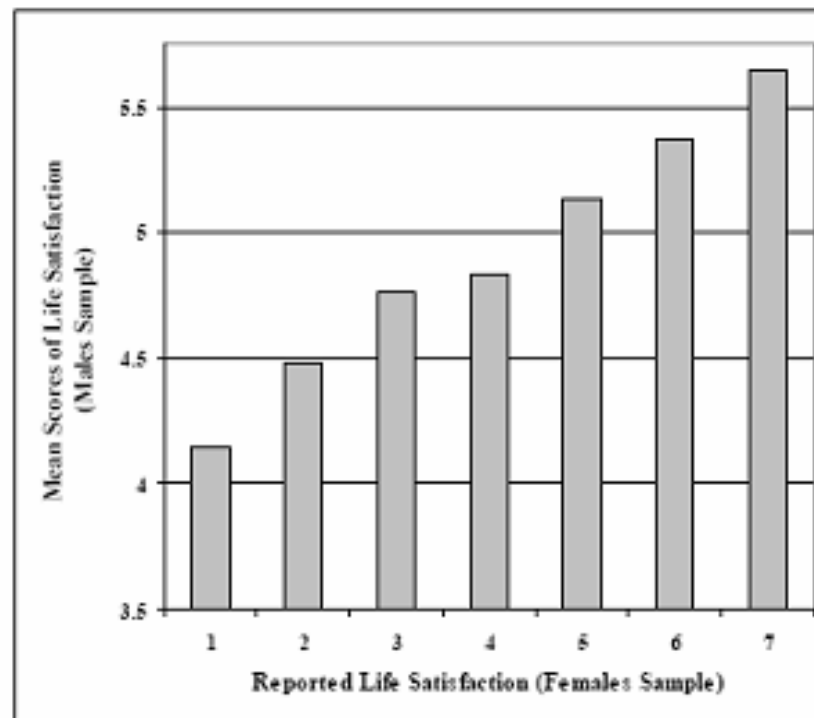
# The distribution of life satisfaction levels among British people



**Source:** BHPS, 1997-2003. N = 74,481

# Interestingly, happy people cohabit with other happy people

Figure 2: Cross-Tabulation of the Life Satisfaction Scores of Cohabitees and their Partners

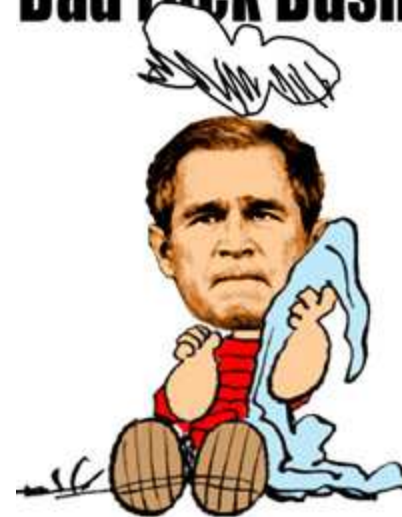


Source: BHPS, Waves 6-10 and 12-13.

**But obviously life is a mixture of ups  
and downs**



**Bad Luck Bush**

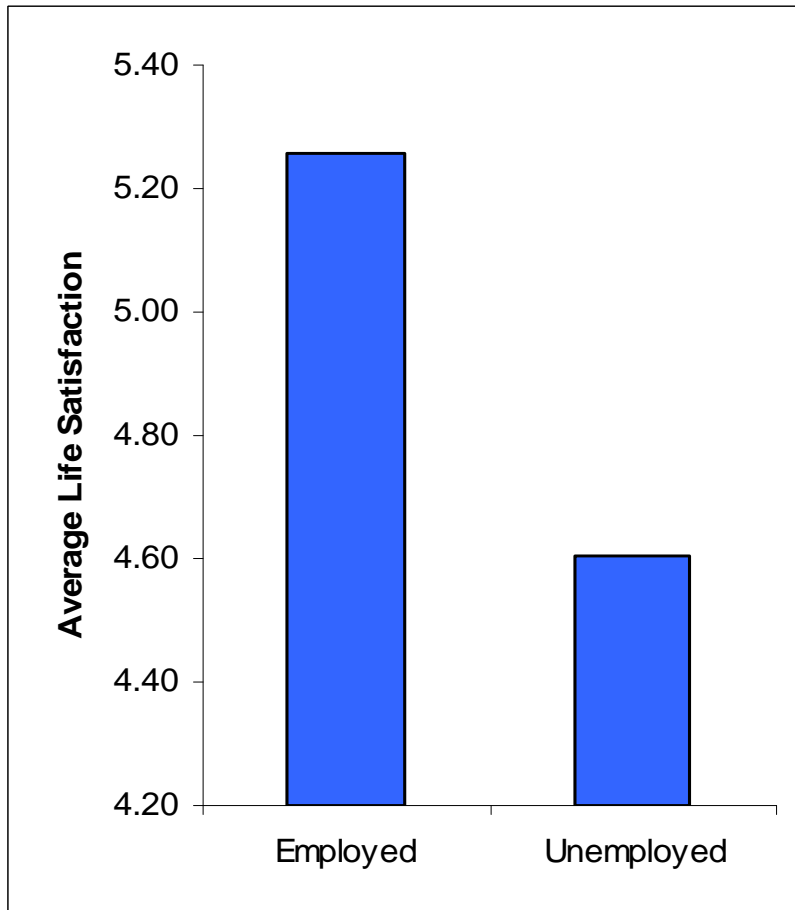


**Statistically, wellbeing is  
strongly correlated with life  
events**

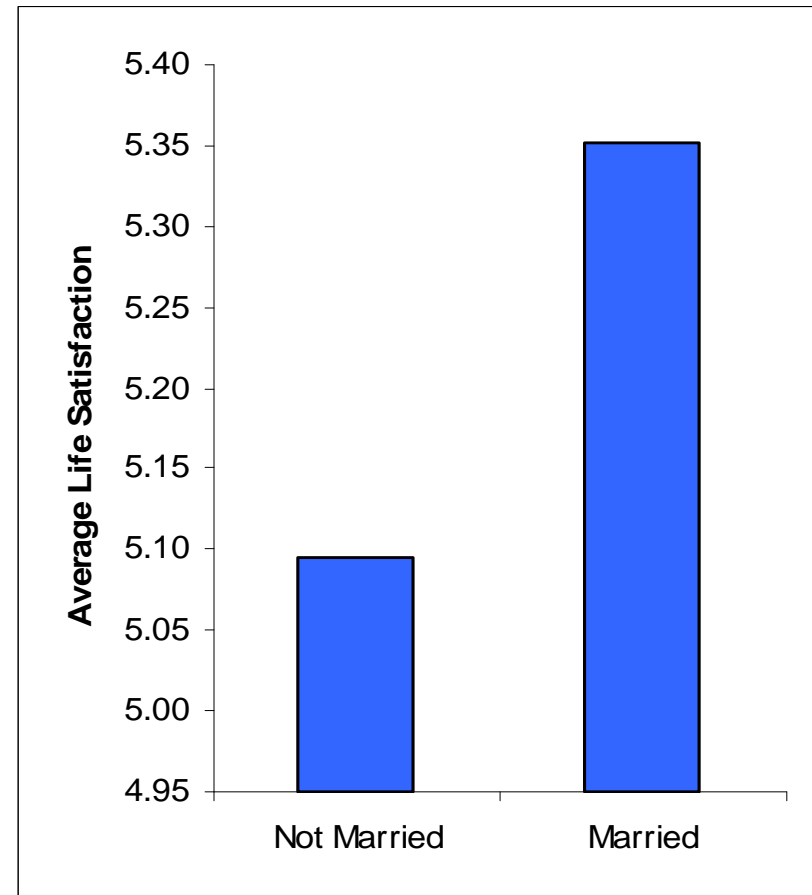


# Two examples

A) By Employment Status



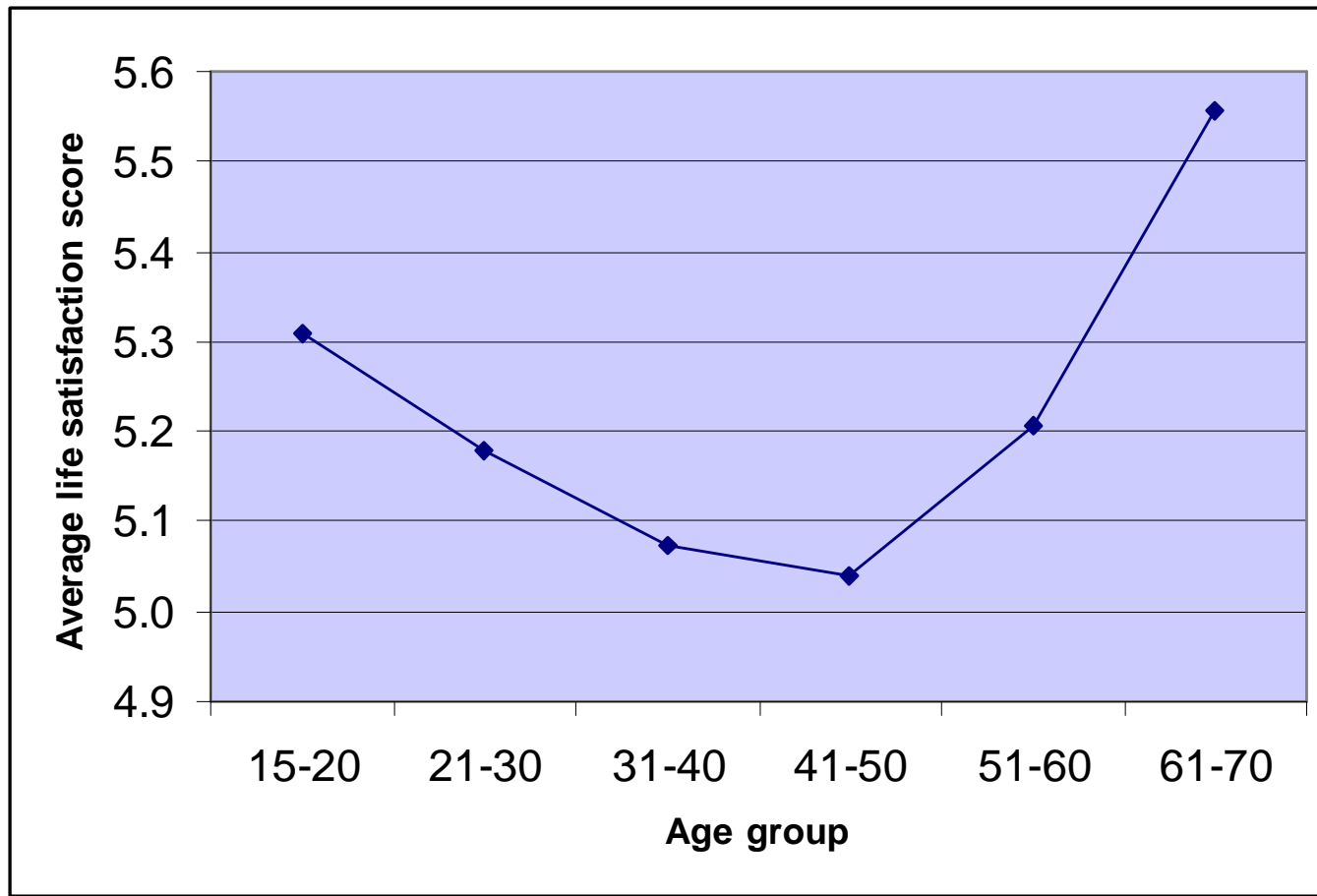
A) By Marital Status



**Source:** BHPS, 1997-2003. N = 74,481

**Happiness is U-shaped  
through the life cycle**

# The pattern of a typical person's happiness through life



**What about money?**

# What about money?

**The data show that richer people are happier and healthier.**

***The state of the mind determines  
the health of the body***

**Those with high status live longer**  
*(being promoted seems more important than  
giving up smoking)*

**Married people are healthier** *(marriage  
offsets smoking)*

**Humans are adaptive.**

**They have amazing  
resilience: eg:**

**(i) divorce**

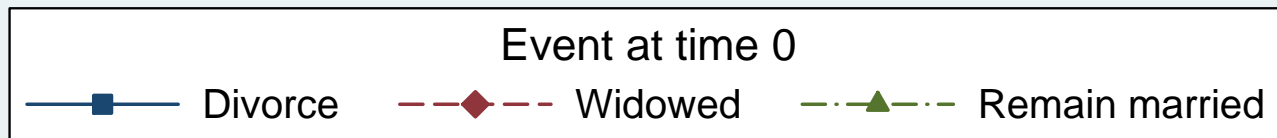
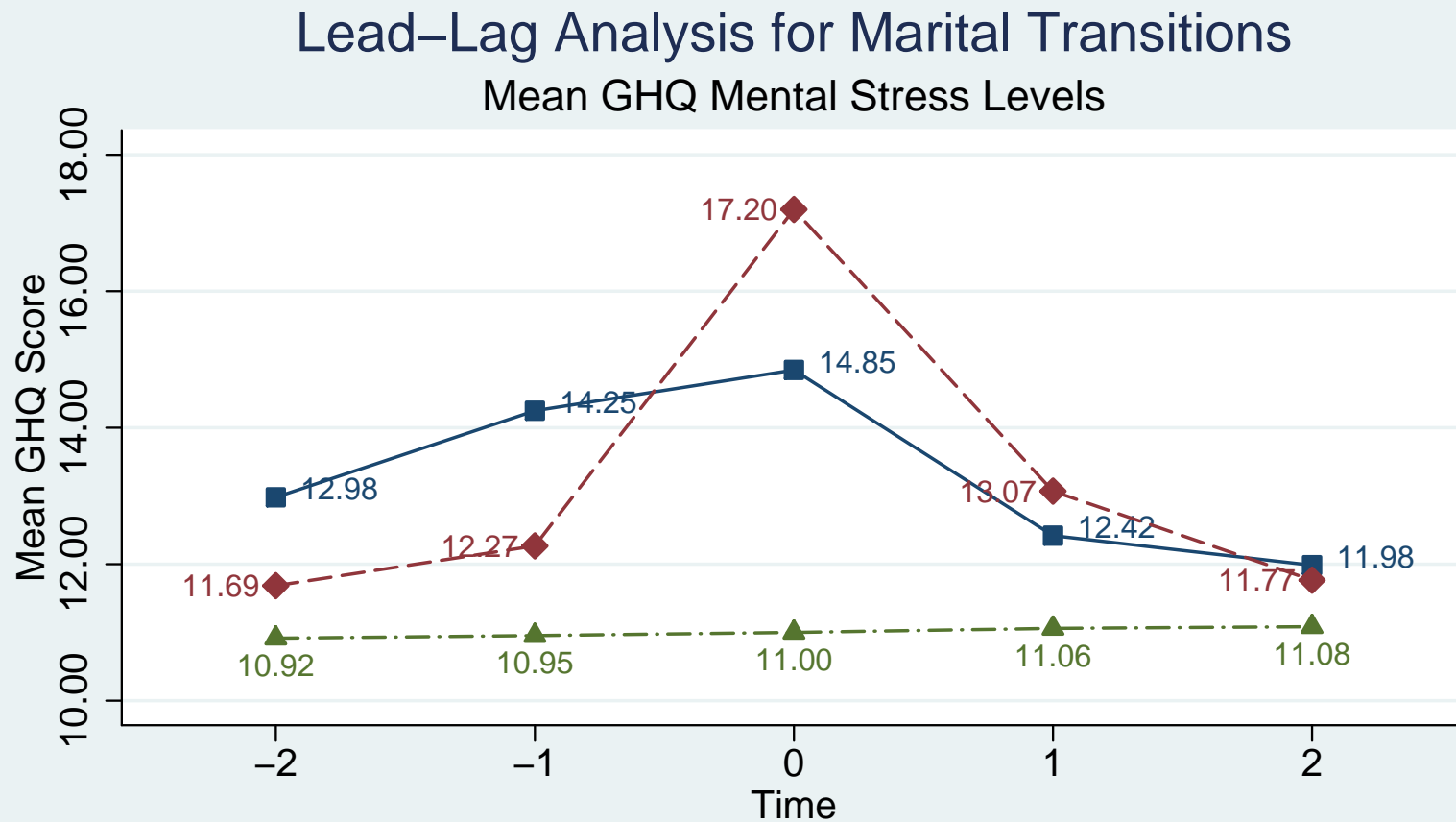
**(ii) disability.**

**Comparing two years before divorce to two years after, there is marked improvement in psychological health.**

***We use a GHQ mental strain score.***



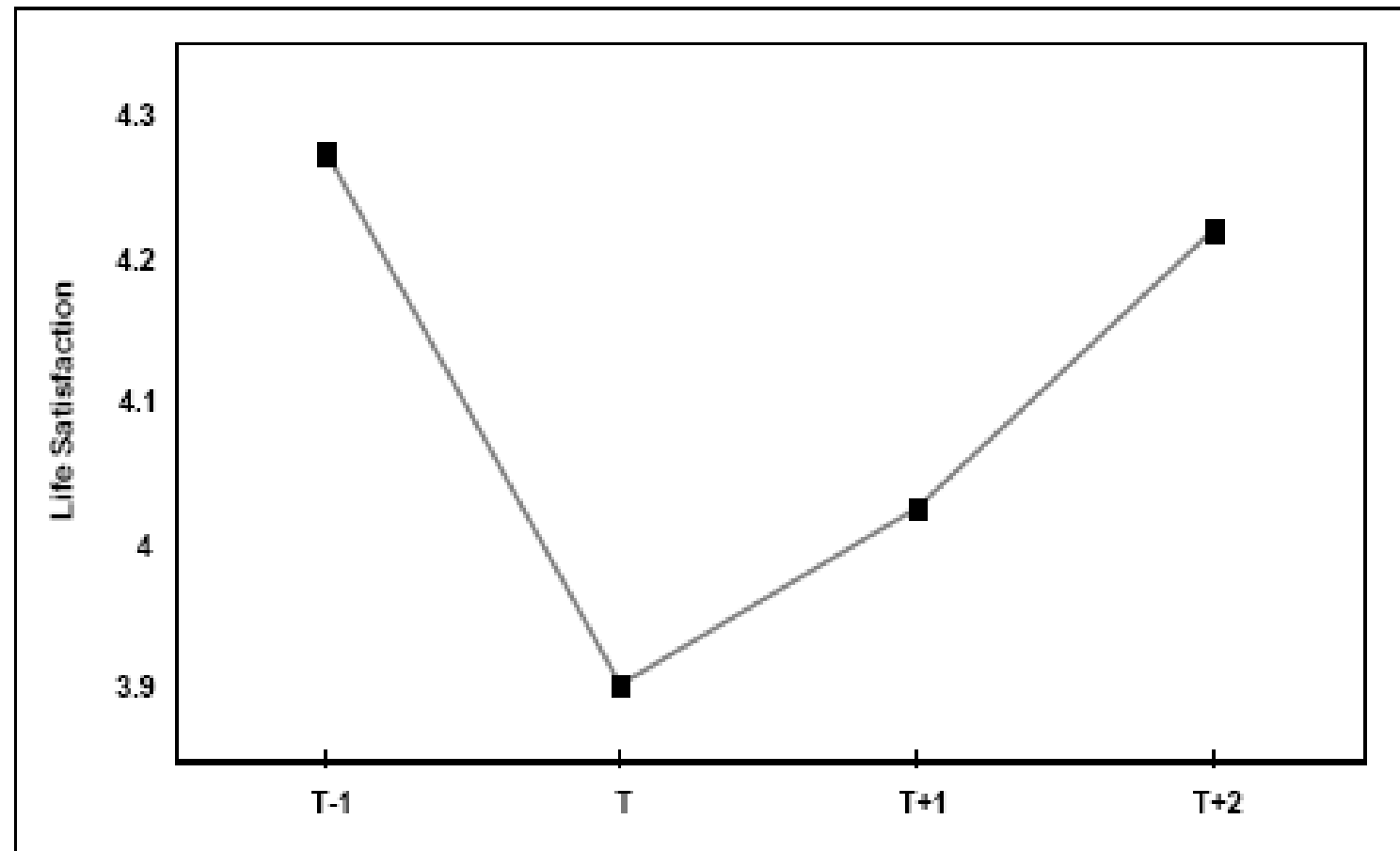
# Divorce eventually makes people happier



Data Source: BHPS

**Human beings bounce back remarkably from, say, disability.**

**Figure 3: Life Satisfaction of Those Who Entered Disability at Time  $T$  and Remained Disabled in  $T+1$  and  $T+2$ , BHPS 1996-2002**



Note: There were 72 individuals who became disabled at time  $T$  and remained disabled in  $T+1$  and  $T+2$ . The mean life satisfaction of these individuals at  $T-2$  is 4.53. The  $t$ -test statistics [p-value] of whether the mean life satisfaction of the individual is equal are 1.374 [0.172] (between  $T-1$  and  $T$ ), -0.466 [0.642] (between  $T$  and  $T+1$ ) and -0.738 [0.461] (between  $T+1$  and  $T+2$ ).

**What about happiness in whole countries?**

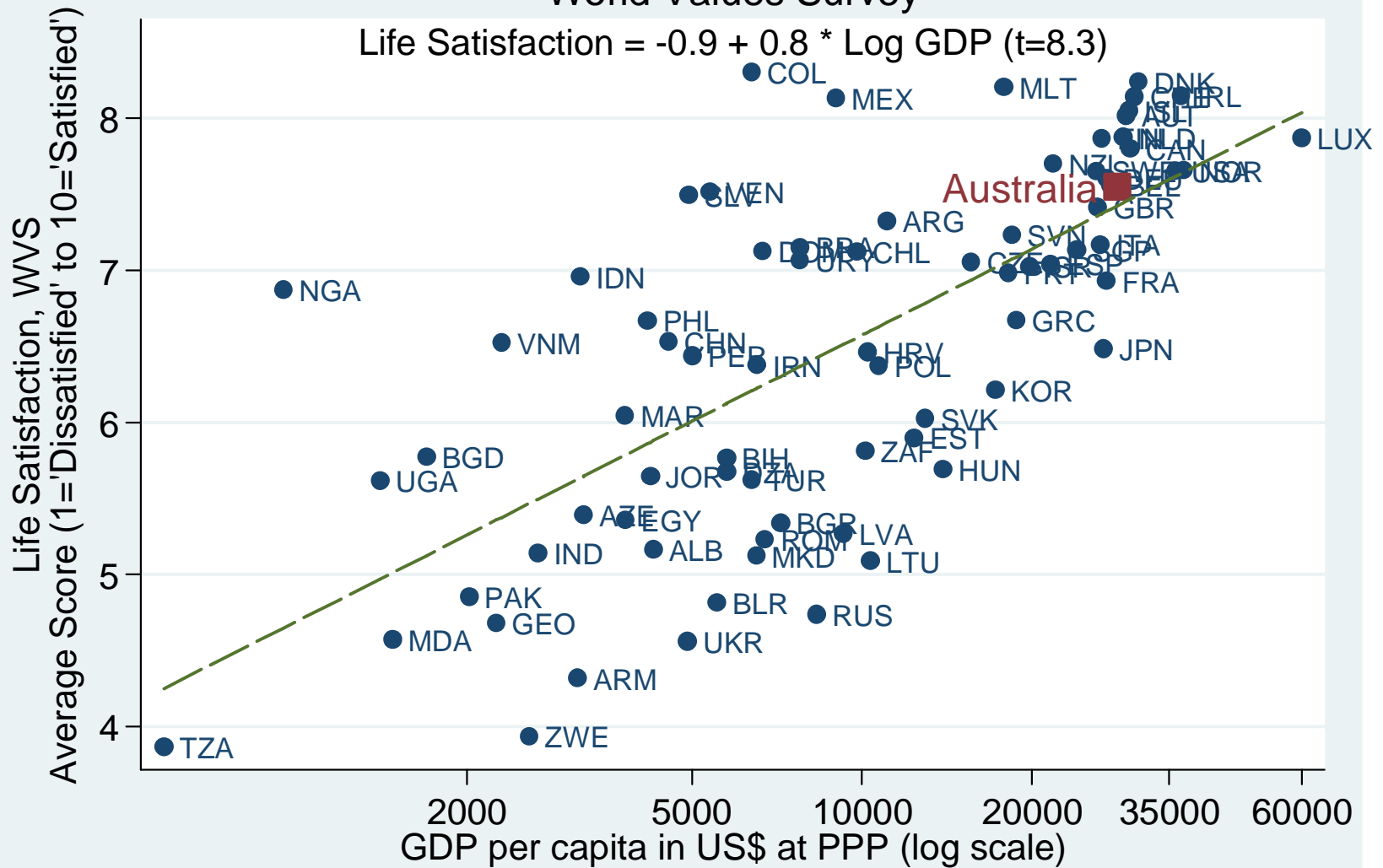
**When a nation is poor, extra riches does raise happiness.**

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riches does raise happiness.**

***Say we look at a scatter plot  
across many countries:***

# Life Satisfaction and GDP Per Capita

## World Values Survey



**How about Finland's happiness  
-- and other industrialized  
countries in Europe?**



# Happiness in countries (alphabetically) from our equations

- Austria .1579 (3.60)
- Czech Republic -.7257 (16.65)
- Denmark 1.0328 (22.32)
- Estonia -.9561 (17.84)
- Finland .5954 (14.13)
- France -.7163 (11.85)
- Germany -.3270 (8.03)
- Great Britain -.2920 (6.77)
- Greece -1.0964 (25.07)
- Hungary -1.1882 (20.48)
- Ireland -.0799 (1.46)
- Israel -.6521 (11.75)
- Italy -.3312 (4.89)
- Luxembourg .6689 (13.38)
- Netherlands .1737 (3.57)
- Norway .2788 (6.50)
- Poland -1.0671 (23.18)
- Portugal -1.1954 (25.45)
- Slovenia -.3857 (7.73)
- Spain -.2362 (4.98)
- Sweden .4185 (9.80)
- Switzerland .5993 (14.02)

# Happiness in countries (alphabetically) from our equations

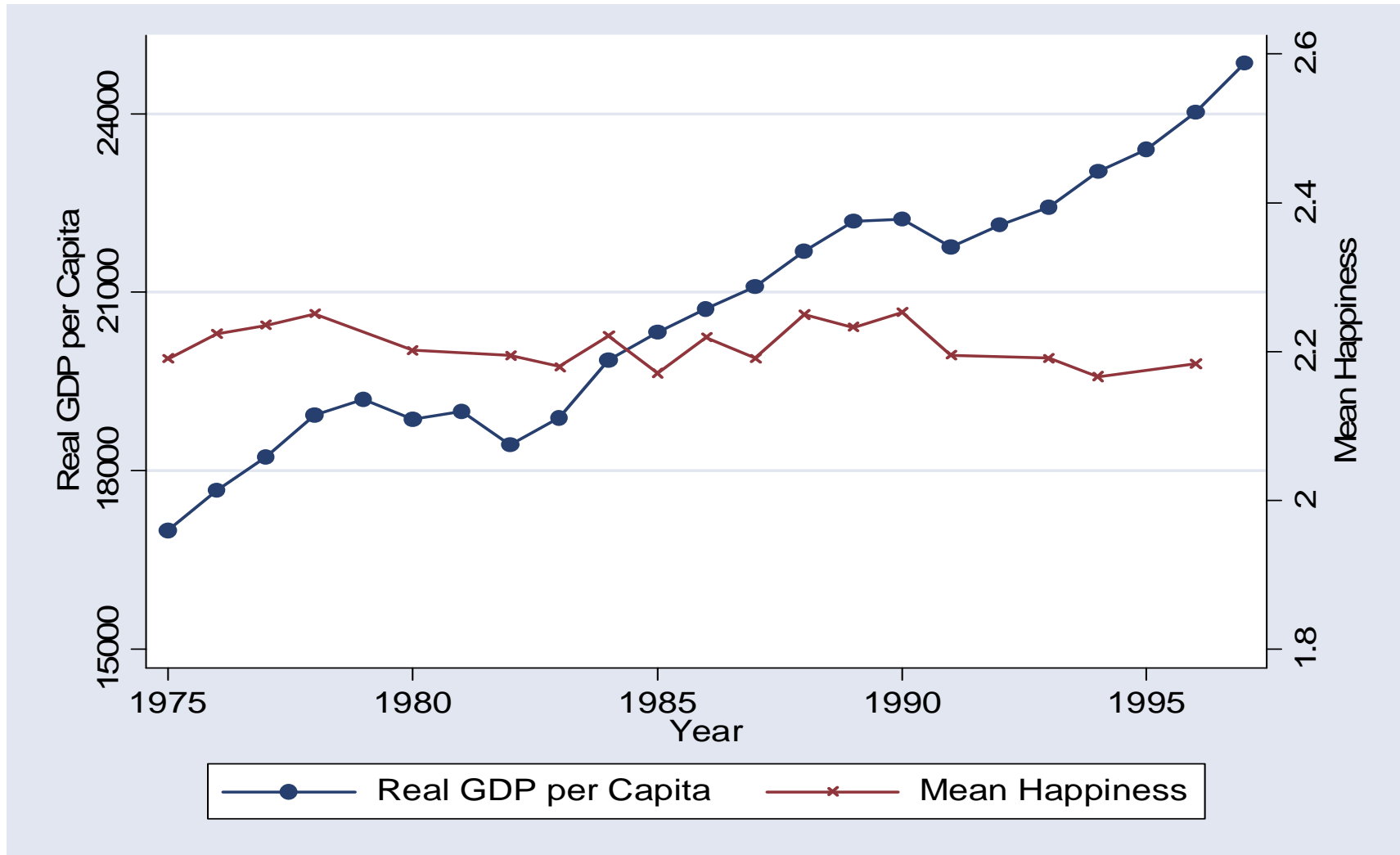
• Austria	.1579 (3.60)	
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• Denmark	1.0328 (22.32)	
• Estonia	-.9561 (17.84)	
• <b>Finland</b>	<b>.5954 (14.13)</b>	<b>Approximately 4th happiest in Europe currently</b>
• France	-.7163 (11.85)	
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# Yet

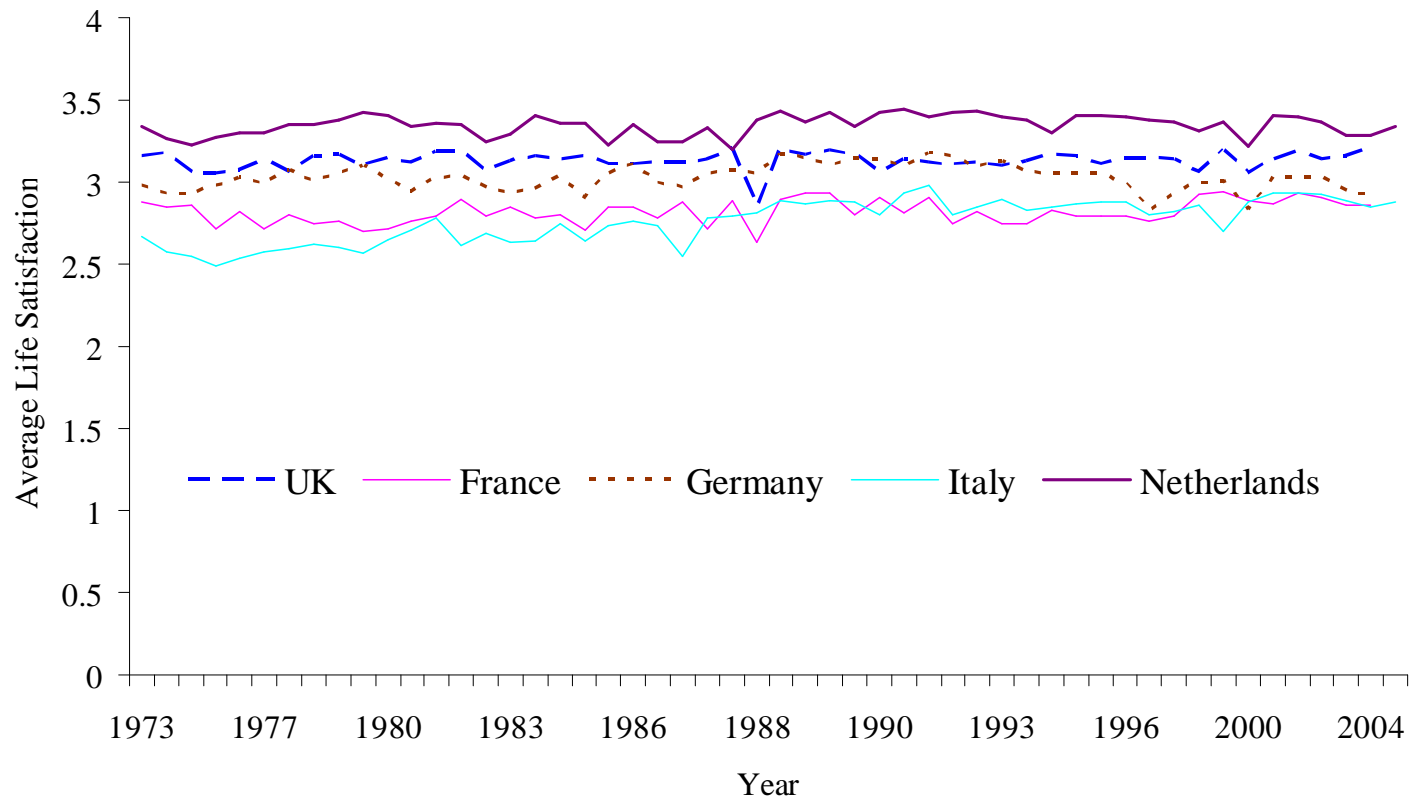
- **Growth in income is now not correlated with growth in happiness**
- **This is the “Easterlin paradox”**

**A simple graph to worry  
finance ministers all over the  
world:**

# Average Happiness and Real GDP per Capita for repeated cross-sections of Americans.



# Wellbeing is flat through time in the other rich countries



*and*

**In the USA, real income levels have risen six-fold over 100 years but:**

**Year 1900 Suicide rate = 10 in 100,000 people**

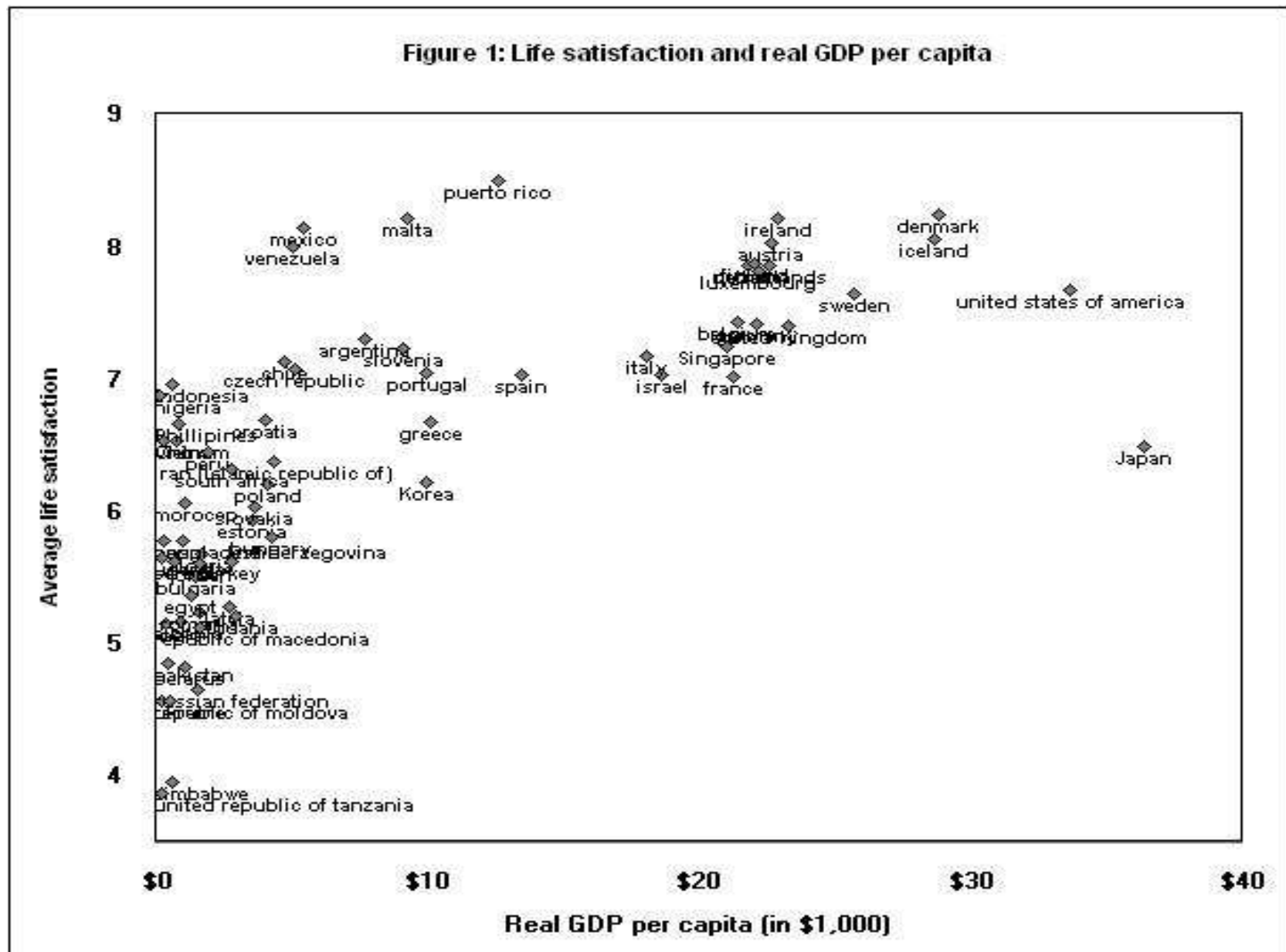
**Year 2005 Suicide rate = 10 in 100,000 people**

**Are there diminishing  
returns to real income?**



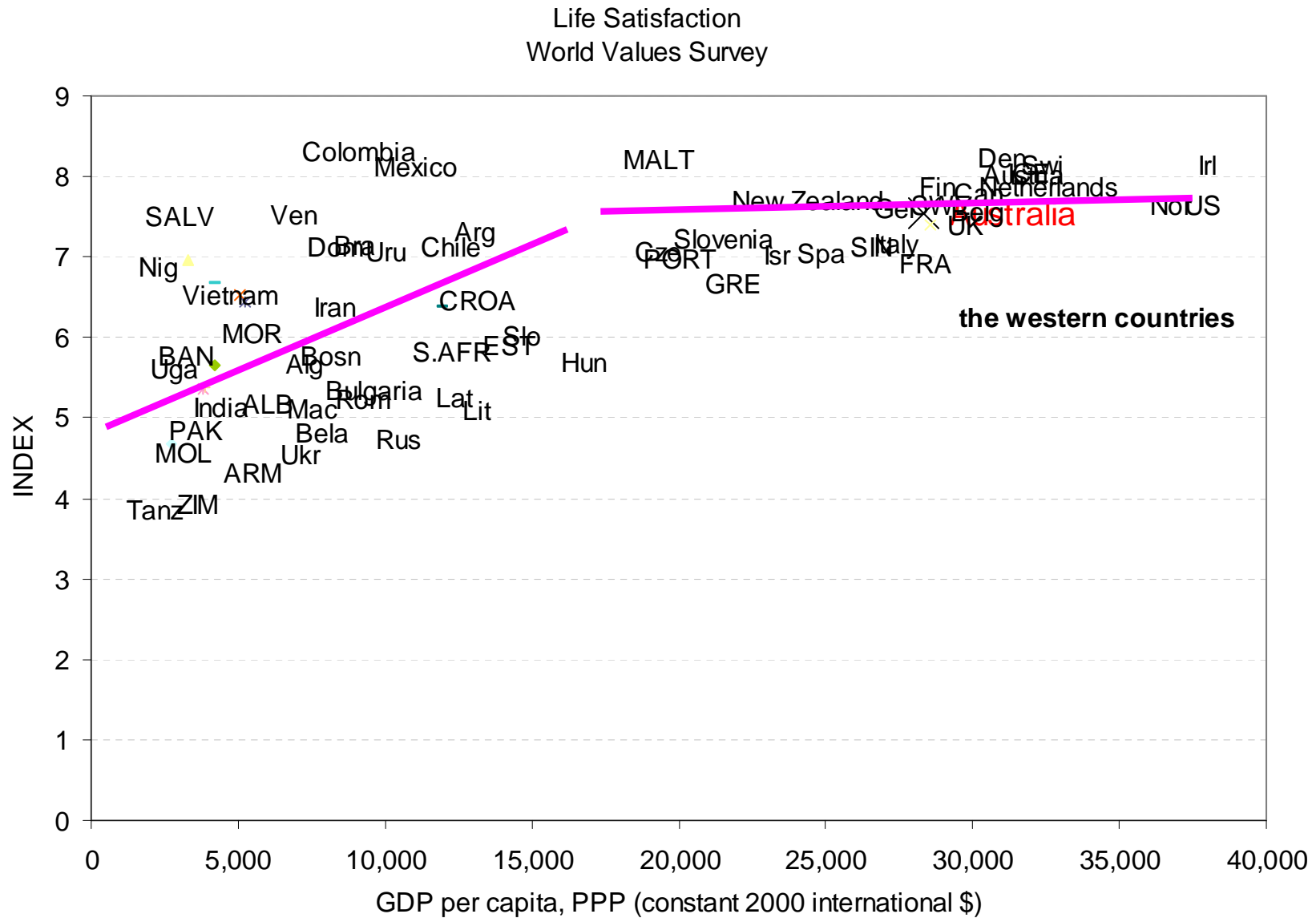
**Are there diminishing  
returns to real income?**

**Very probably yes.**



**Source:** World Values Survey, 1995

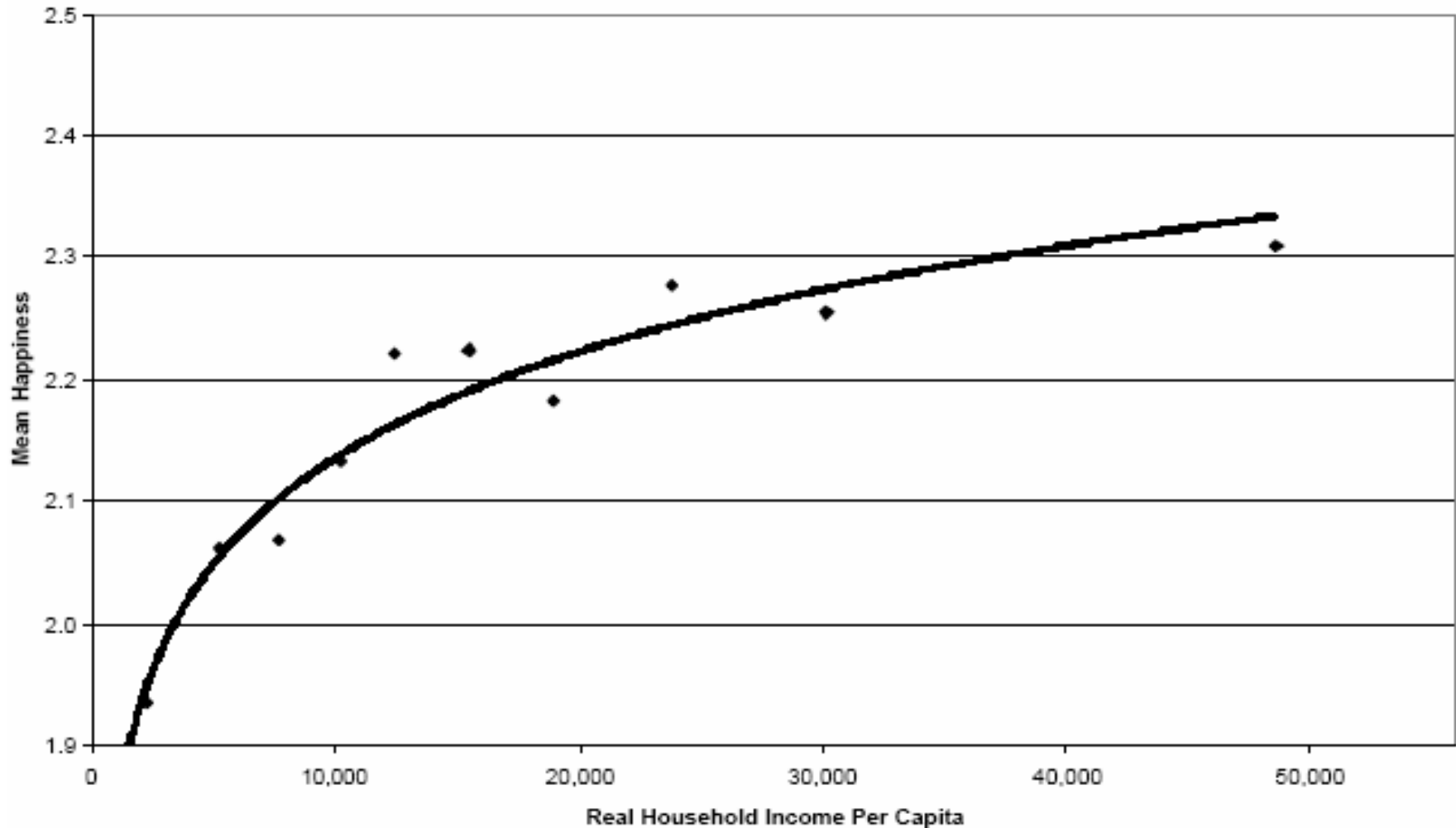
# 1995/2000 World Values Survey results



# Similar results within a nation

(though cardinality questionable)

Take American families in 1994 for example



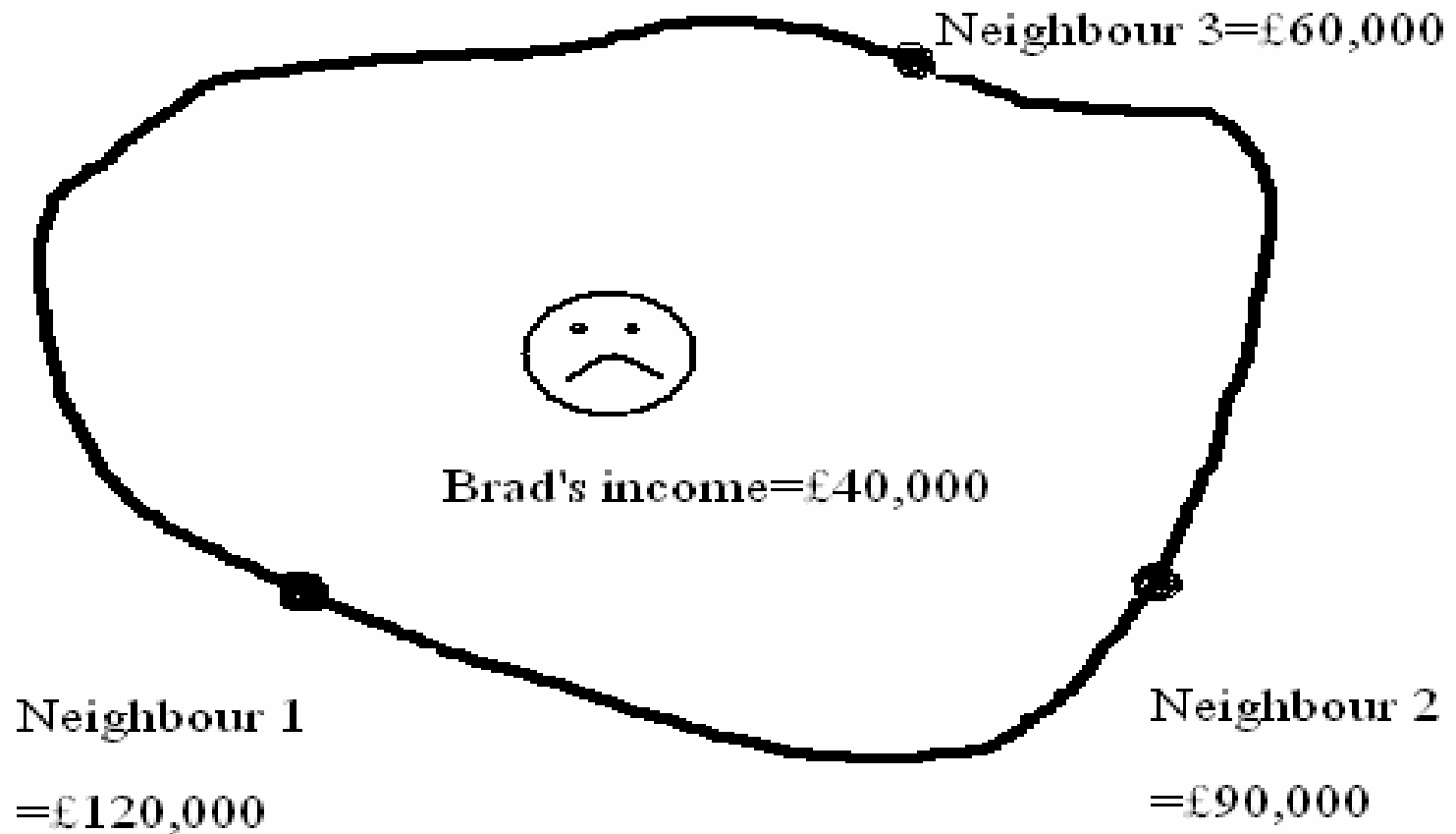
**What, exactly, goes wrong  
when a wealthy country gets  
richer?**

**We are not certain, but..**

# Some clues...

- **Social comparison (you compare your 3 BMWs to people with 3 BMWs)**
- **Habituation: people adapt to money**
- **Mistaken choices (long commutes and working hours)**

# Social Comparisons



**Can we produce a  
happier society?**

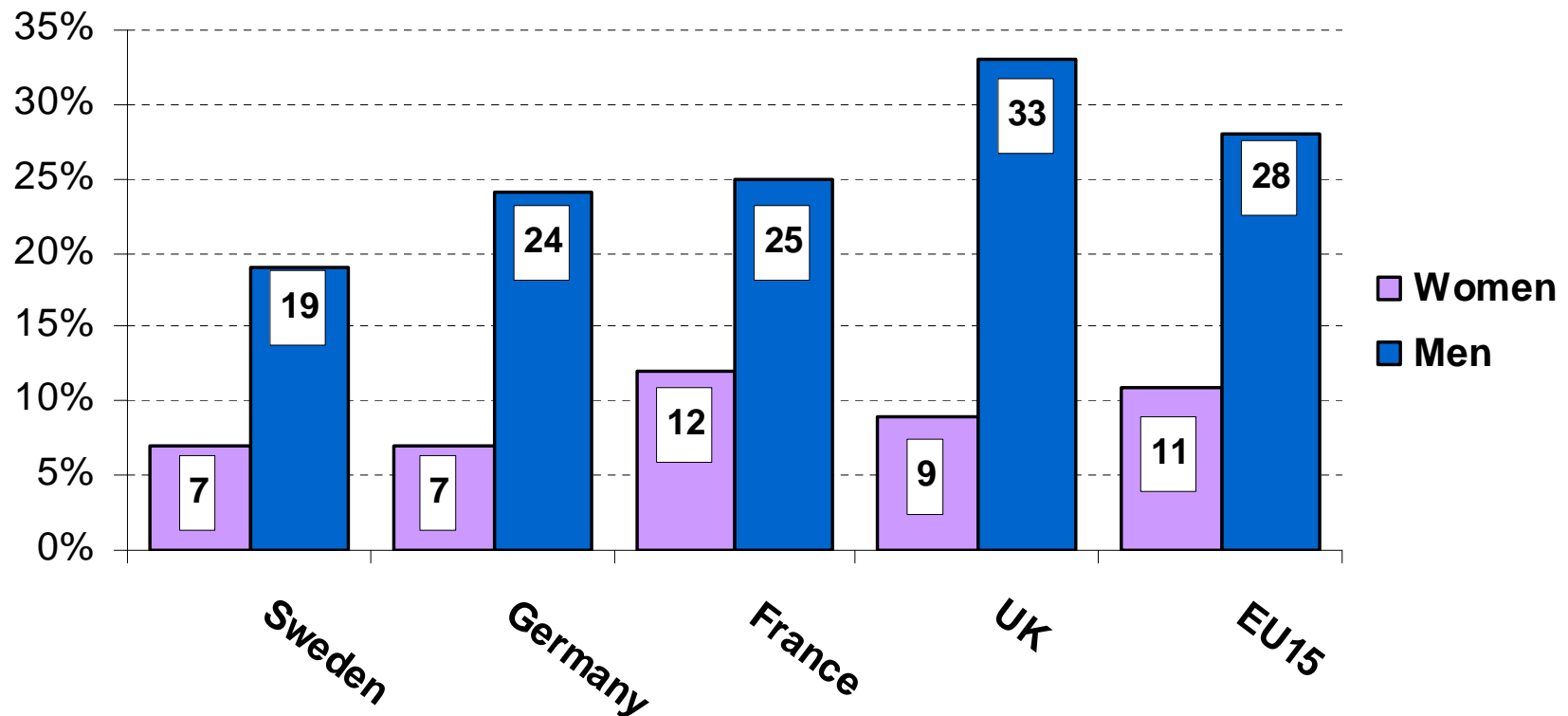


# Some ideas

- **Envy and social comparisons are counter-productive at the aggregate level**
- **Some argue for a ‘corrective tax’ system – one that reduces work effort to a level where the fruitless incentive to raise your relative income has been fully offset (Frank and Layard)**
- **In terms of positional goods, e.g. luxury cars – could be taxed much more**

# Another difficulty: Long working hours in the EU

Graph 1: % of employees working over 45 hours per week



Source: *European Working Conditions Survey, 2000*

# Gross National Happiness (GNH) Policy in Bhutan

- **4 pillars of public policy**
  - Sustainable and equitable socio-economic development
  - Conservation of environment (e.g. banning of plastic bags)
  - Preservation and promotion of culture (e.g. ban US programmes and advertising)
  - Promotion of good governance

*Source:* Jigmi Y. Thinley, Minister of Home and Cultural Affairs, Bhutan

*A key finding from our equations*

**Friends and partners matter  
much more than money.**

## How much are social relationships worth in terms of happiness?

	Valuations (in £)
See friends once a month	£57,500 p.a.
See friends once a week	£69,500 p.a.
See friends on most days	£85,000 p.a.
Getting married	£50,500 p.a.
Losing a job	-£143,000 p.a.

**Source:** BHPS, Powdthavee (2006).

**As a society, we could also pay attention to improving public goods, and the environment in the broadest sense.**

## *Summing up*

**Given our current real  
income levels:**

## *Summing up*

**Given our current real  
income levels:**

**Growth is not making the  
industrialized nations  
happier.**



## *The natural conclusion*

**Policy in the coming century  
will need to concentrate on  
non-materialistic goals.**

**GNH not GNP.**



**Thank you**

# Does Economic Growth Create Happiness?

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University of Warwick**

Papers and supporting material  
downloadable at [www.andrewoswald.com](http://www.andrewoswald.com)

I owe a great debt to the work of Paul Frijters, Nick  
Powdthavee, and Justin Wolfers