

# Happiness

**Prof. Andrew Oswald  
University of Warwick**

**Esmee Fairbairn 2006 Lecture, Lancaster**

**Economics is changing**

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**Researchers are studying  
mental wellbeing.**

# **Economics is changing**

**Researchers are studying  
mental wellbeing.**

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

**Could we learn how to ...**

**..make Lancaster U  
(even) happier?**



**and countries and prime  
ministers..?**



# **Using large random samples of individuals from many nations:**

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

- (i) individuals**
- (ii) nations.**



## *A taste of research (1)*

**Happiness is high among:**

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**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:**

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**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 an industrialized country happier.**

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**Economic growth does not make an industrialized country happier.**

***Plus there is evidence that stress levels at work, and rates of depression, have been increasing.***

## *A taste of research (4)*

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



*Let's clean up  
so all our rivers look  
this good*

**Green** 



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

## Statistical methods

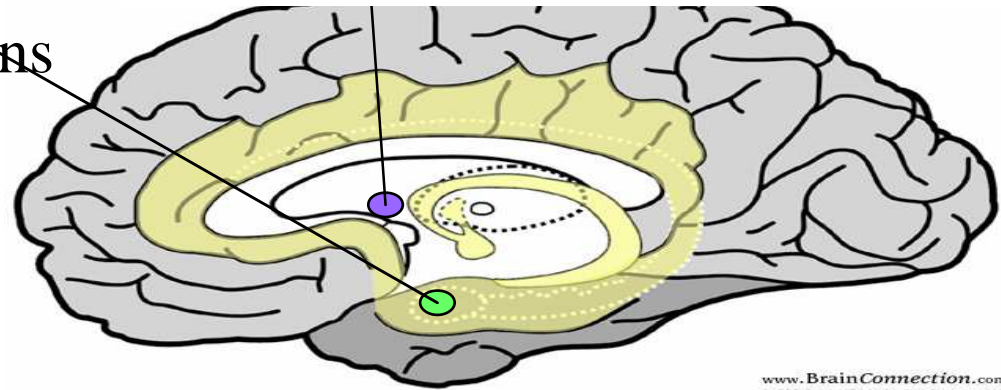
***But is it possible to study happiness and mental wellbeing in a systematic way?***

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



Amygdala:  
emotions

Pleasure centre: septal area of  
the hypothalamus

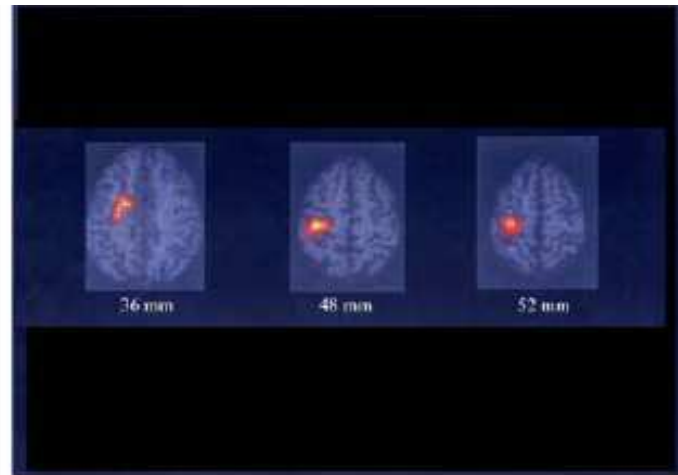


www.BrainConnection.com  
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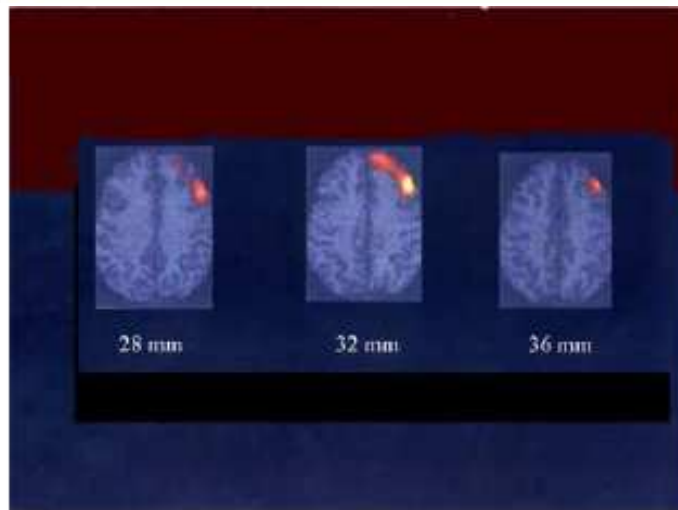
- **activity in the brain's pleasure centres**
- **health, smiles, positive emotional arousal, and future intentions**

# 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 response to stress**
- **The risk of getting coronary heart disease**

# Typical GHQ mental-strain questions

Have you recently:

**Lost much sleep over worry?**

**Felt constantly under strain?**

**Felt you could not overcome your difficulties?**

**Been feeling unhappy and depressed?**

**Been losing confidence in yourself?**

**Been thinking of yourself as a worthless person?**

***Some cheery news:***

*Some cheery news:*

**In Western nations, most people are happy with their lives**



# The distribution of life-satisfaction levels among British people

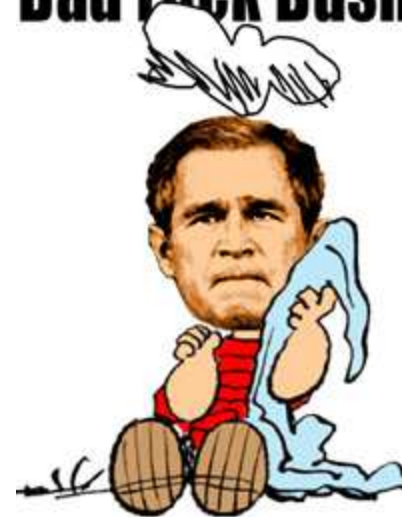


**Source:** BHPS, 1997-2003. N = 74,481

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



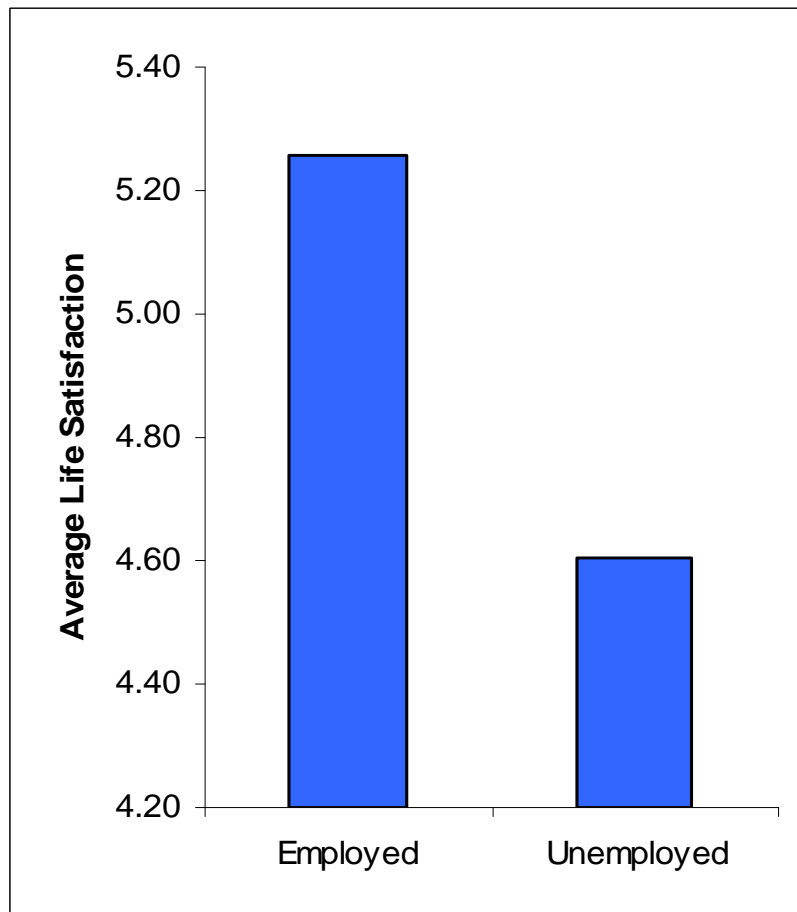
**Bad Luck Bush**



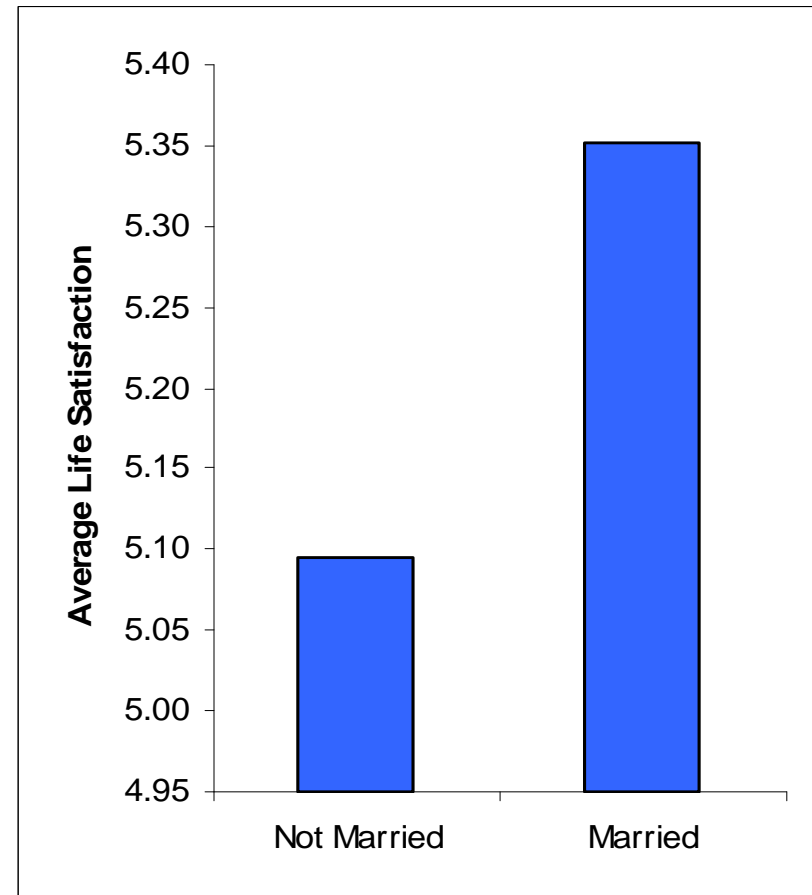
**Statistically, wellbeing is  
strongly correlated with life  
events**

# Two examples

A) By Employment Status



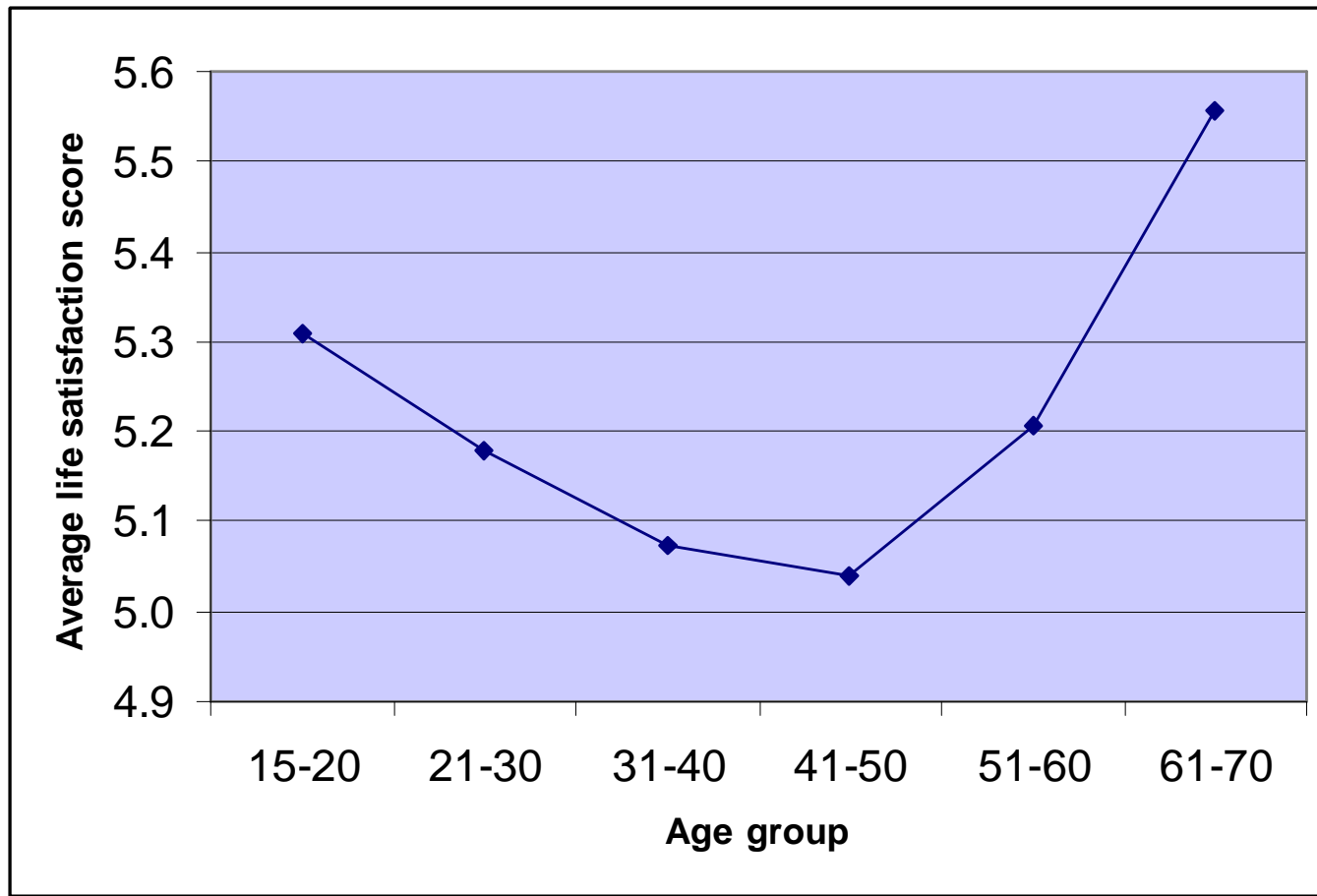
A) By Marital Status



**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



**This holds in many settings**

# **This holds in various settings**

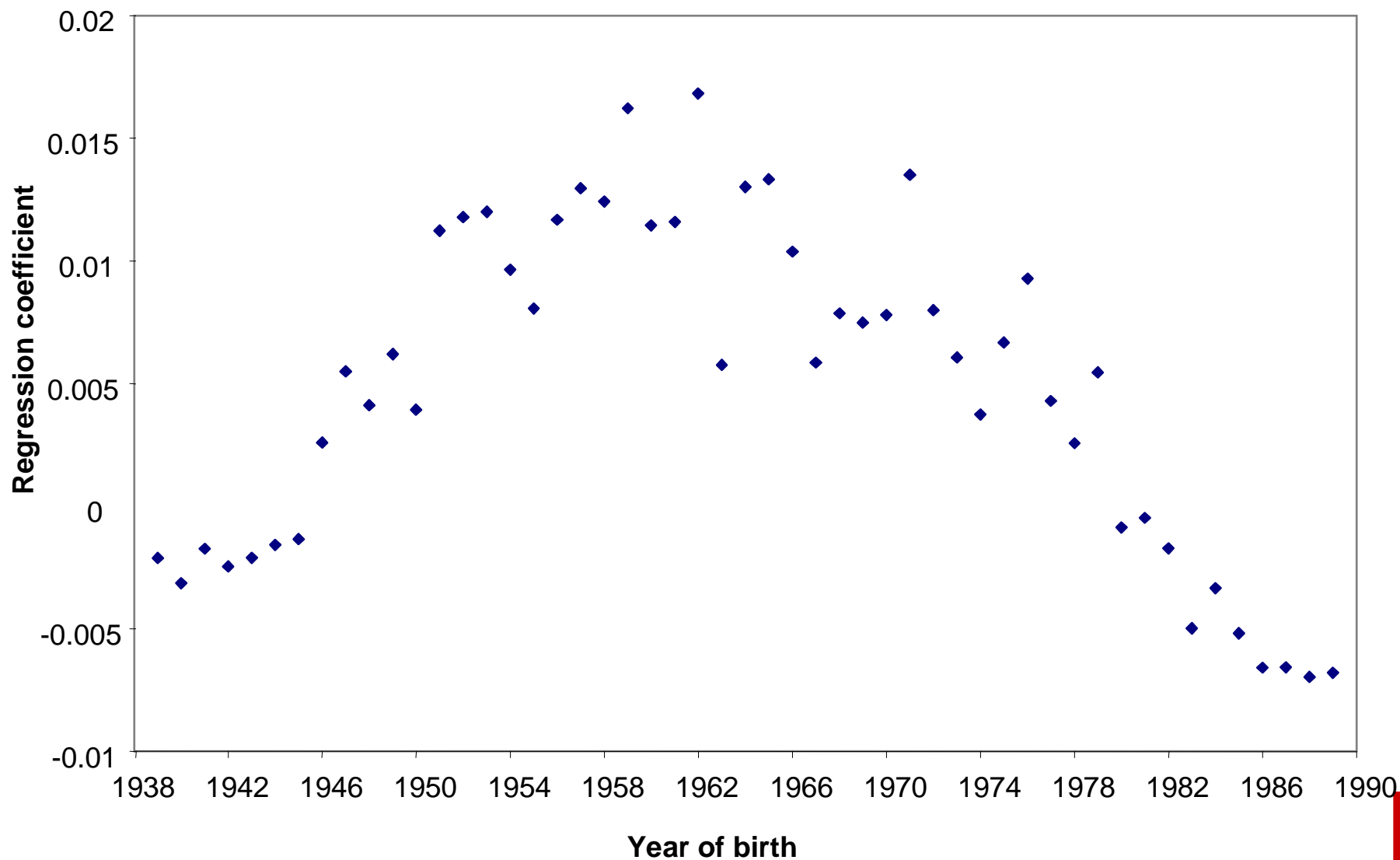
**For example, we see the same age pattern in the probability of depression among a recent sample of 800,000 UK citizens:**

[Blanchflower and Oswald, 2006]



# The probability of depression by age

Males, LFS data set 2004-2006



# Age at which GHQ-N6 Mental Distress Reaches its Peak:

	<u>Age at the maximum</u>	<u>N</u>
• Belgium	52	1005
• Denmark	35	995
• Greece	53	984
• Italy	49	940
• Spain	56	981
• France	45	972
• Ireland	44	972
• Netherlands	47	957
• Portugal	60	937
• East Germany	46	942
• Austria	48	963
• UK	47	1285

**Now what about money?**

# Now what about money?

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

**In the literature, one broader  
feature is striking:**

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

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the health of the body***

**Those with high status live longer**  
*(being promoted seems more important  
than a healthy diet and exercise)*

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

**To the gentlemen:**



**To the gentlemen:**

**If you must smoke,**

**To the gentlemen:**

**If you must smoke,**

**it is essential to get  
married.**



**Another intriguing feature of  
the data:**

**Humans are adaptive.**

**They have amazing  
resilience: eg. to**

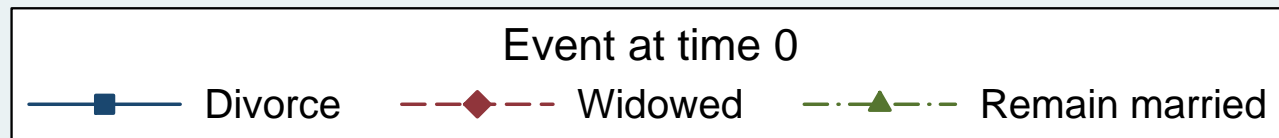
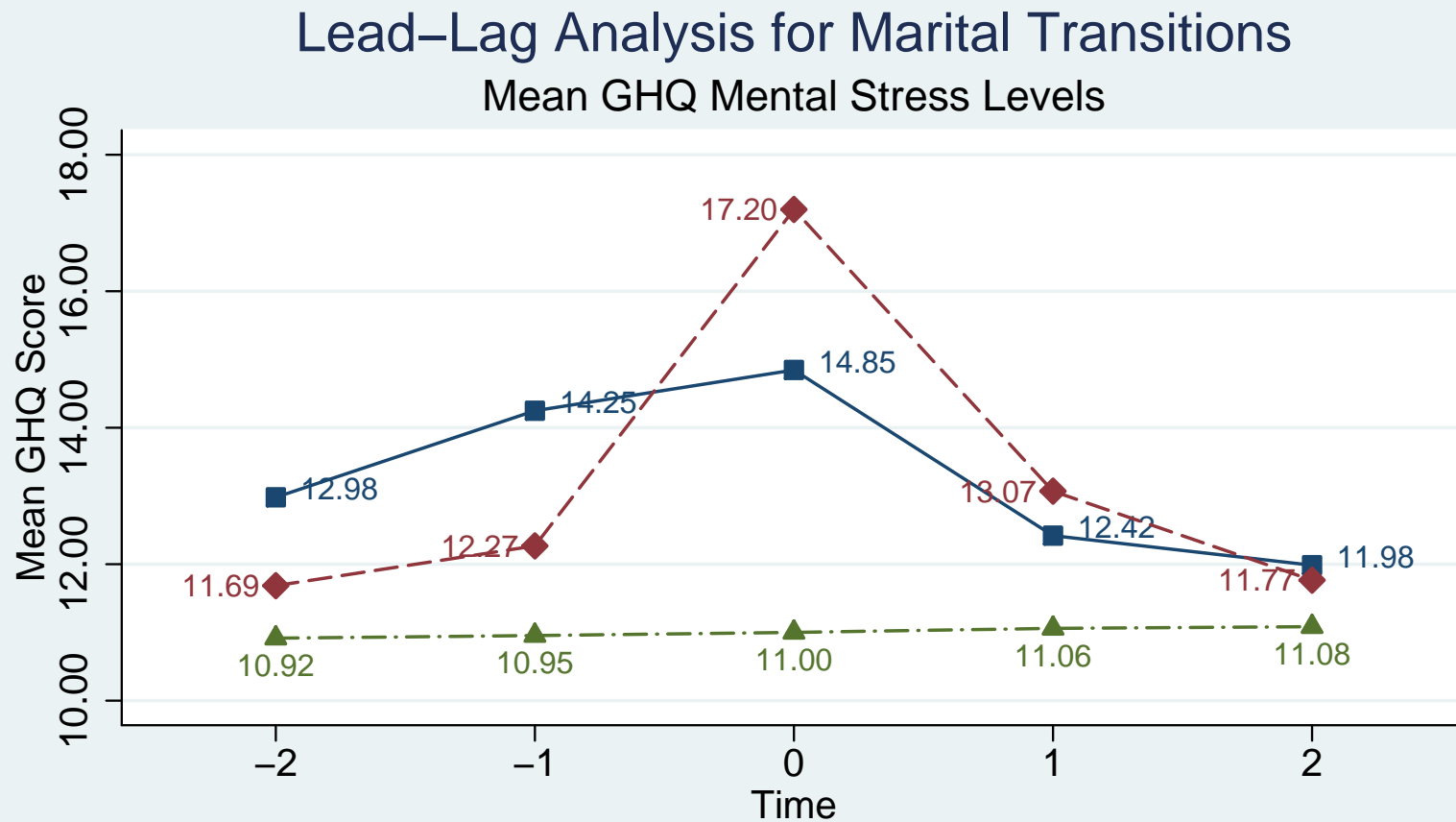
**(i) divorce**

**(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.***

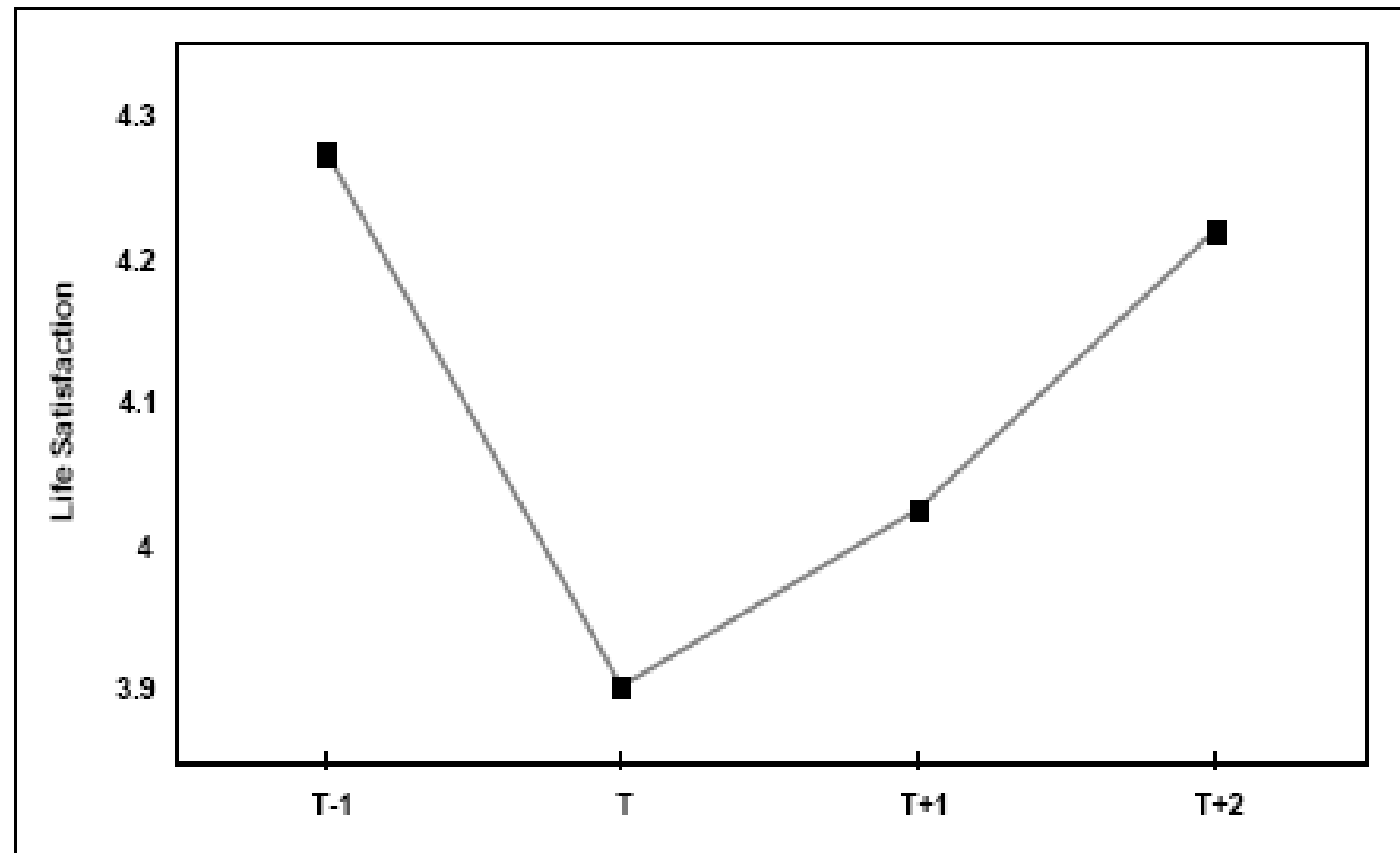
# Divorce eventually makes people happier



Data Source: BHPS

**Human beings also 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**

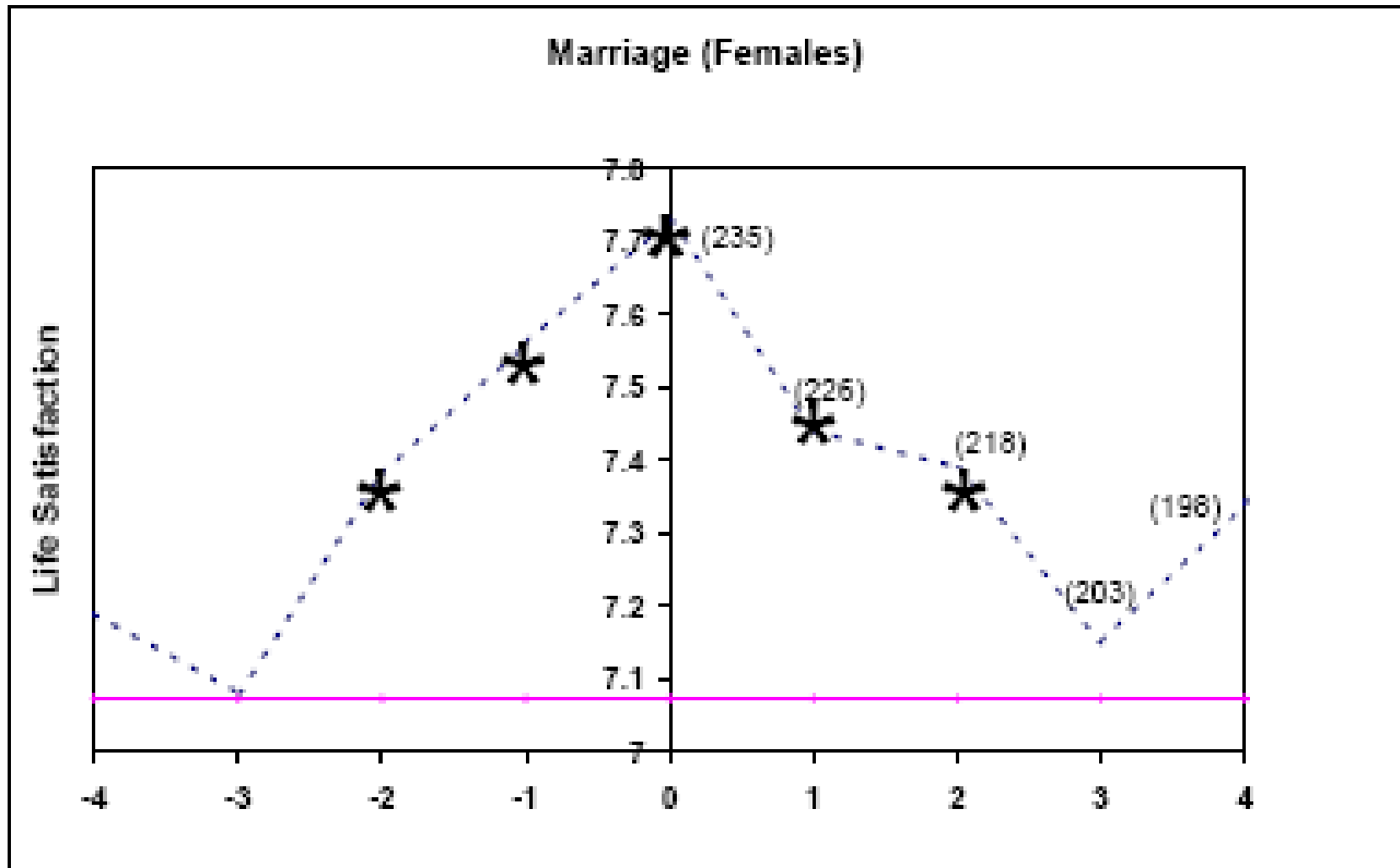


Note: There were 72 individuals who became disabled at time  $T$  and remained disabled in  $T+1$  and  $T+2$ . The mean life satisfaction of these individuals at  $T-2$  is 4.53. The  $t$ -test statistics [p-value] of whether the mean life satisfaction of the individual is equal are 1.374 [0.172] (between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



**However, there is a downside to  
that adaptability**

# However, there is a downside to that adaptability



**What about happiness in whole countries?**

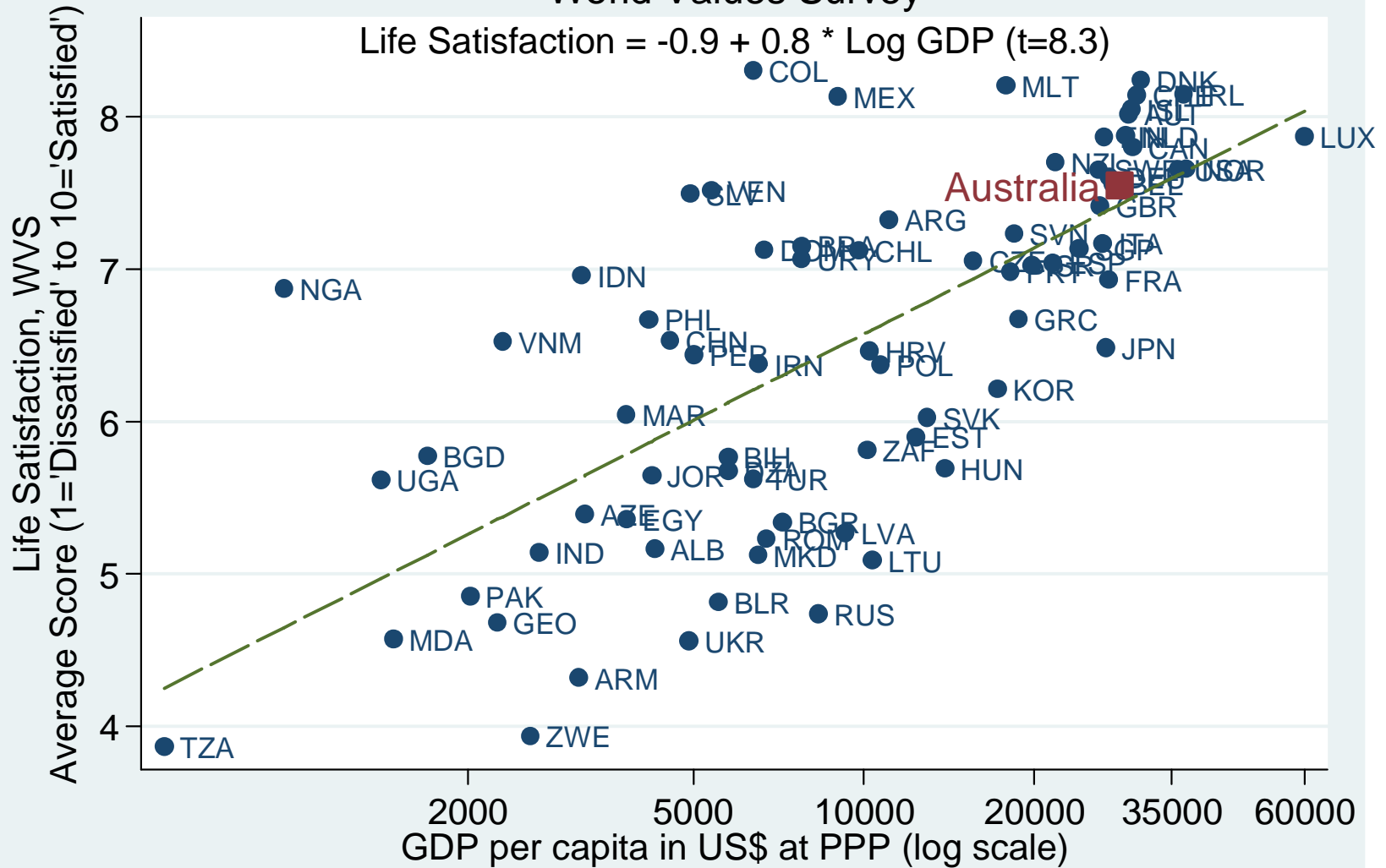
**When a nation is poor, extra riches will raise happiness.**

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

# Life Satisfaction and GDP Per Capita

## World Values Survey



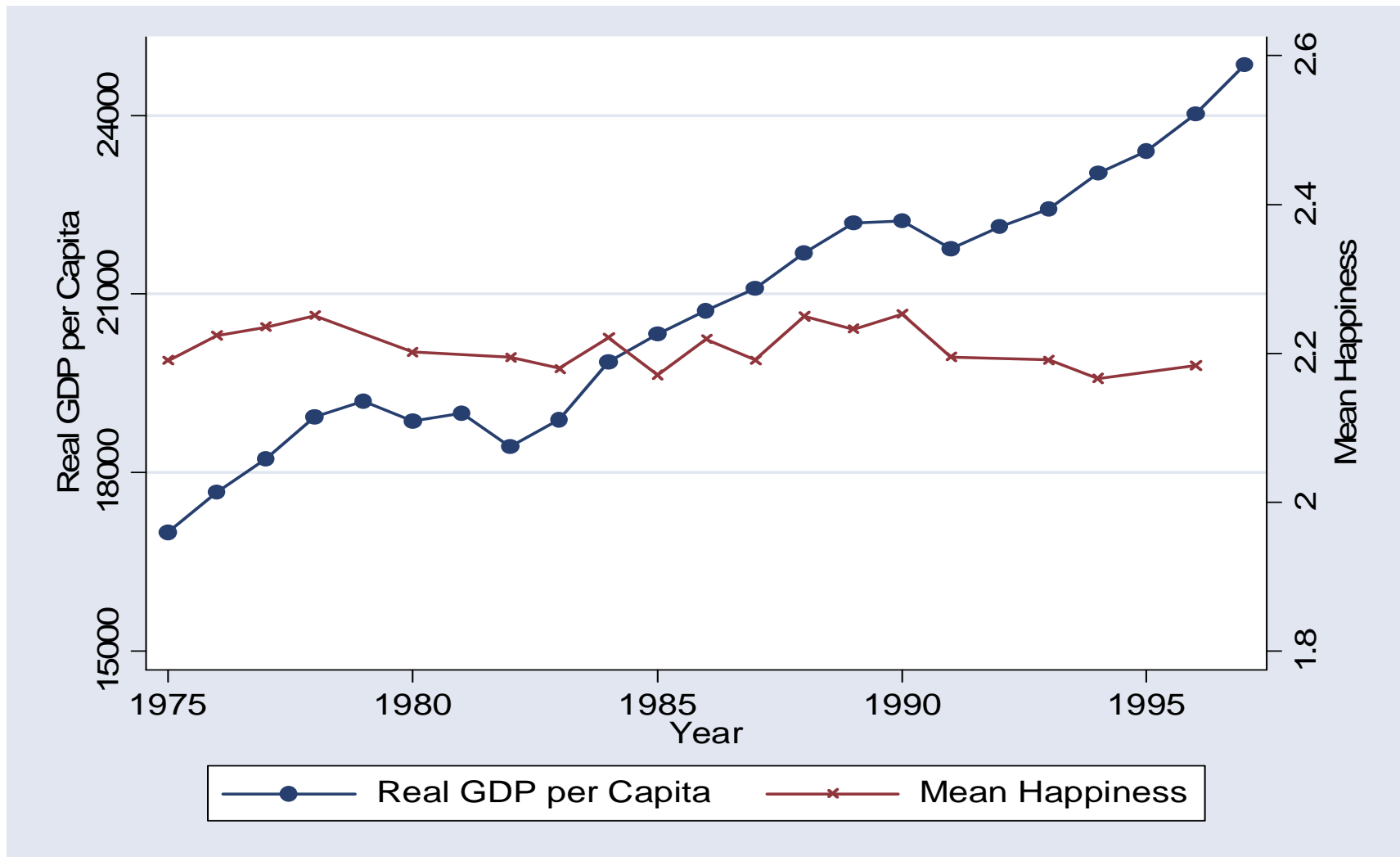
# Yet

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

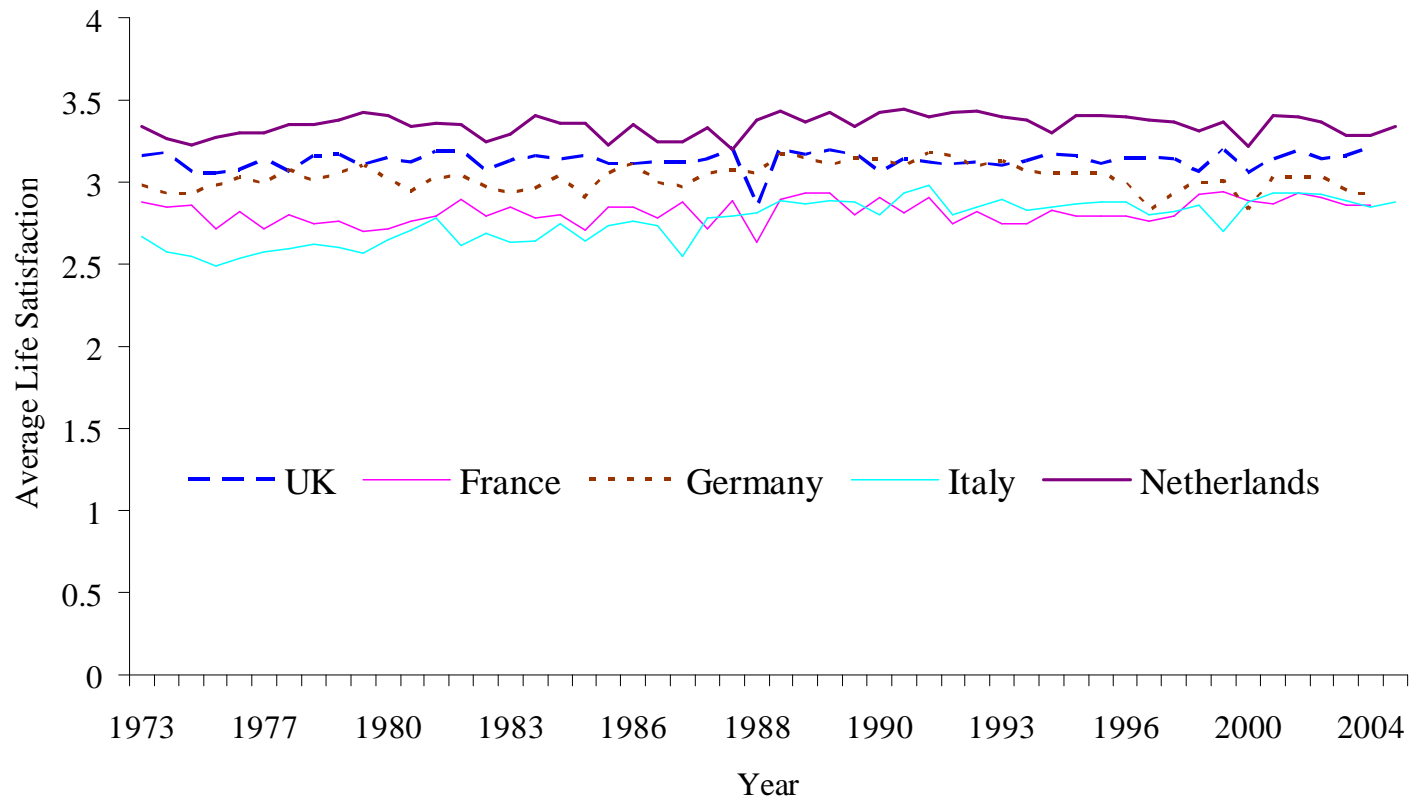
**A simple graph to worry  
finance ministers all over the  
world:**



# 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?**

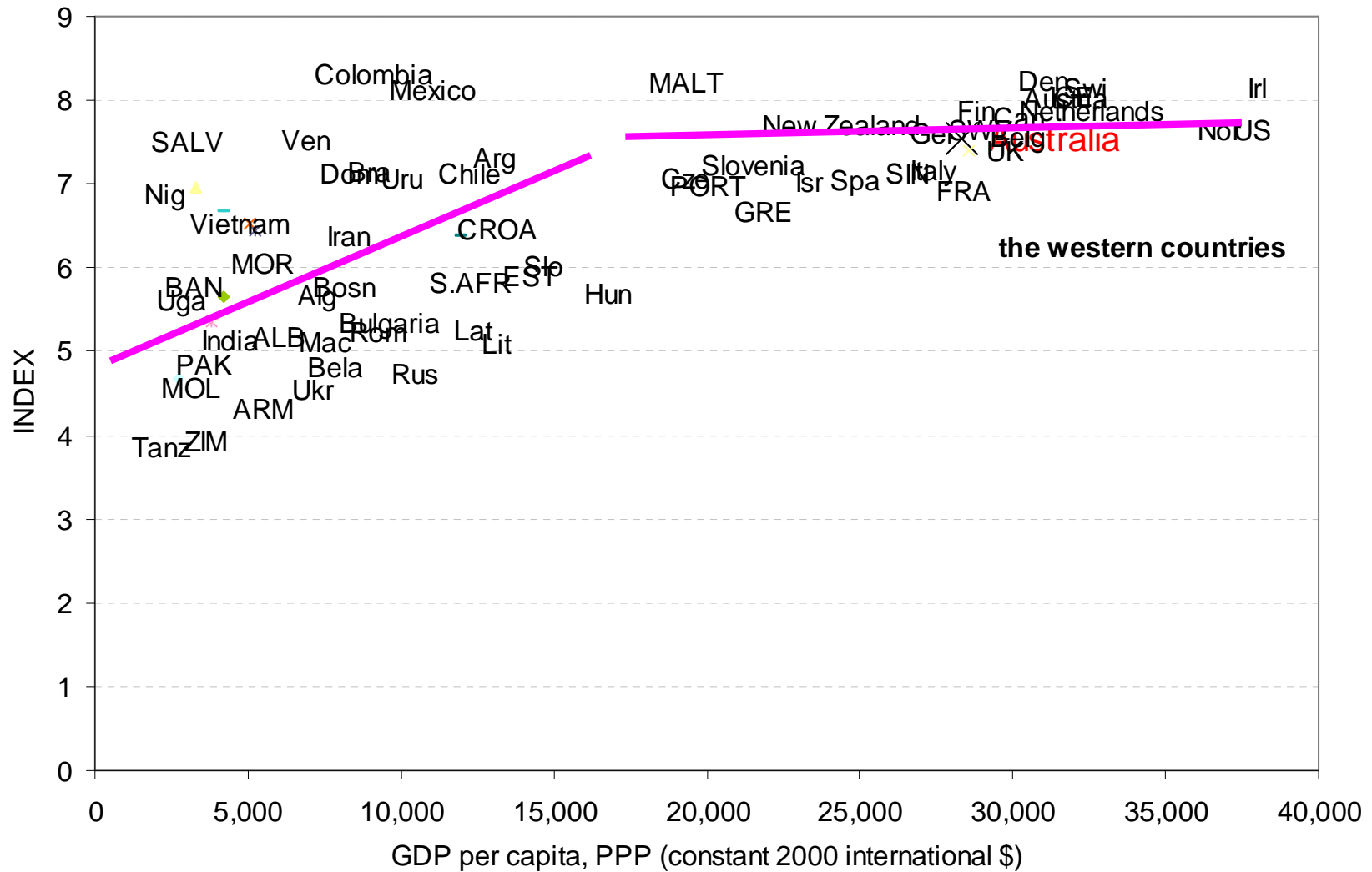
**Are there diminishing  
returns to real income?**

**Very probably yes.**



# 1995/2000 World Values Survey results

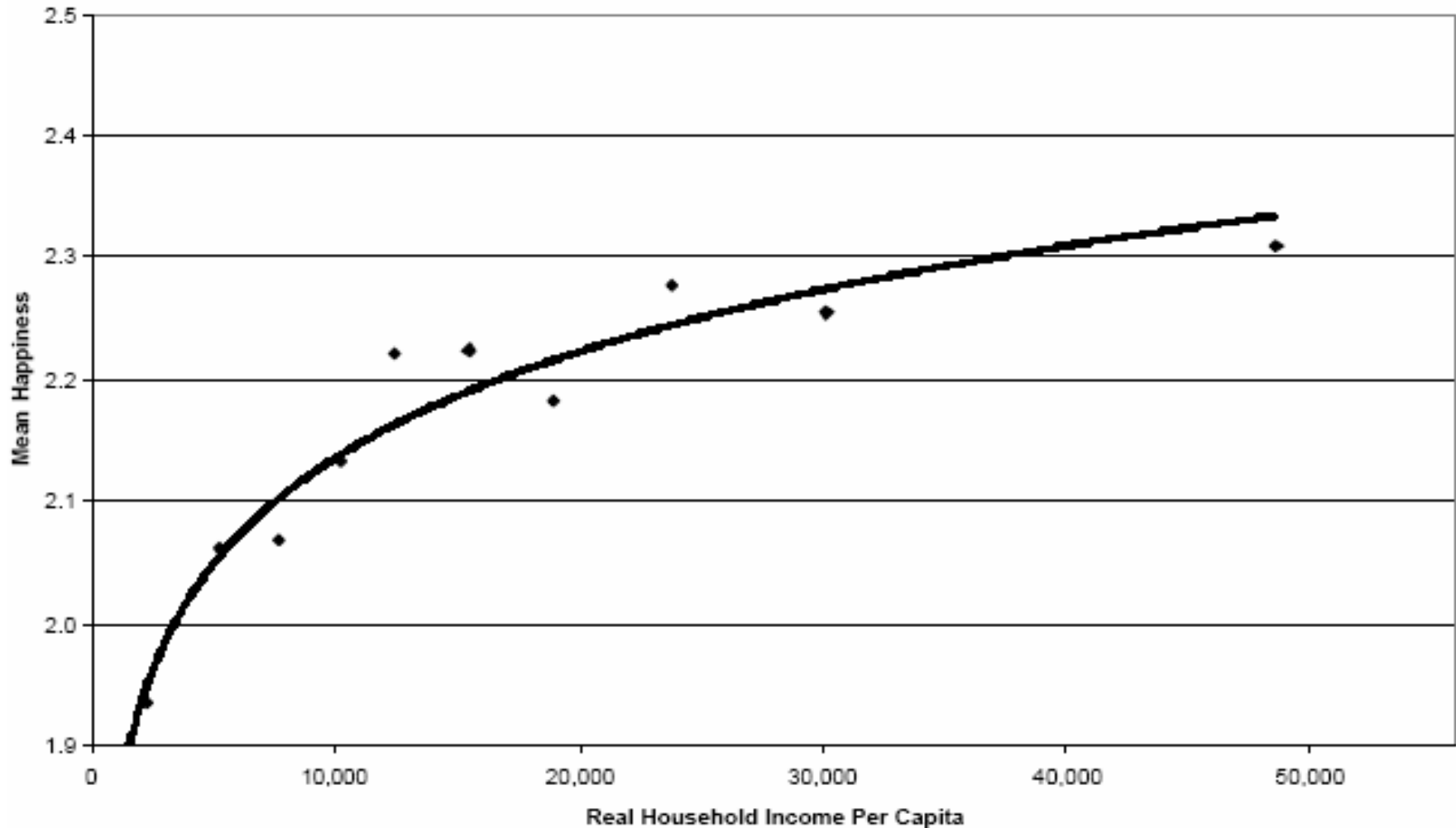
Life Satisfaction  
World Values Survey



# Similar results within a nation

(though cardinality questionable)

Take American families in 1994 for example





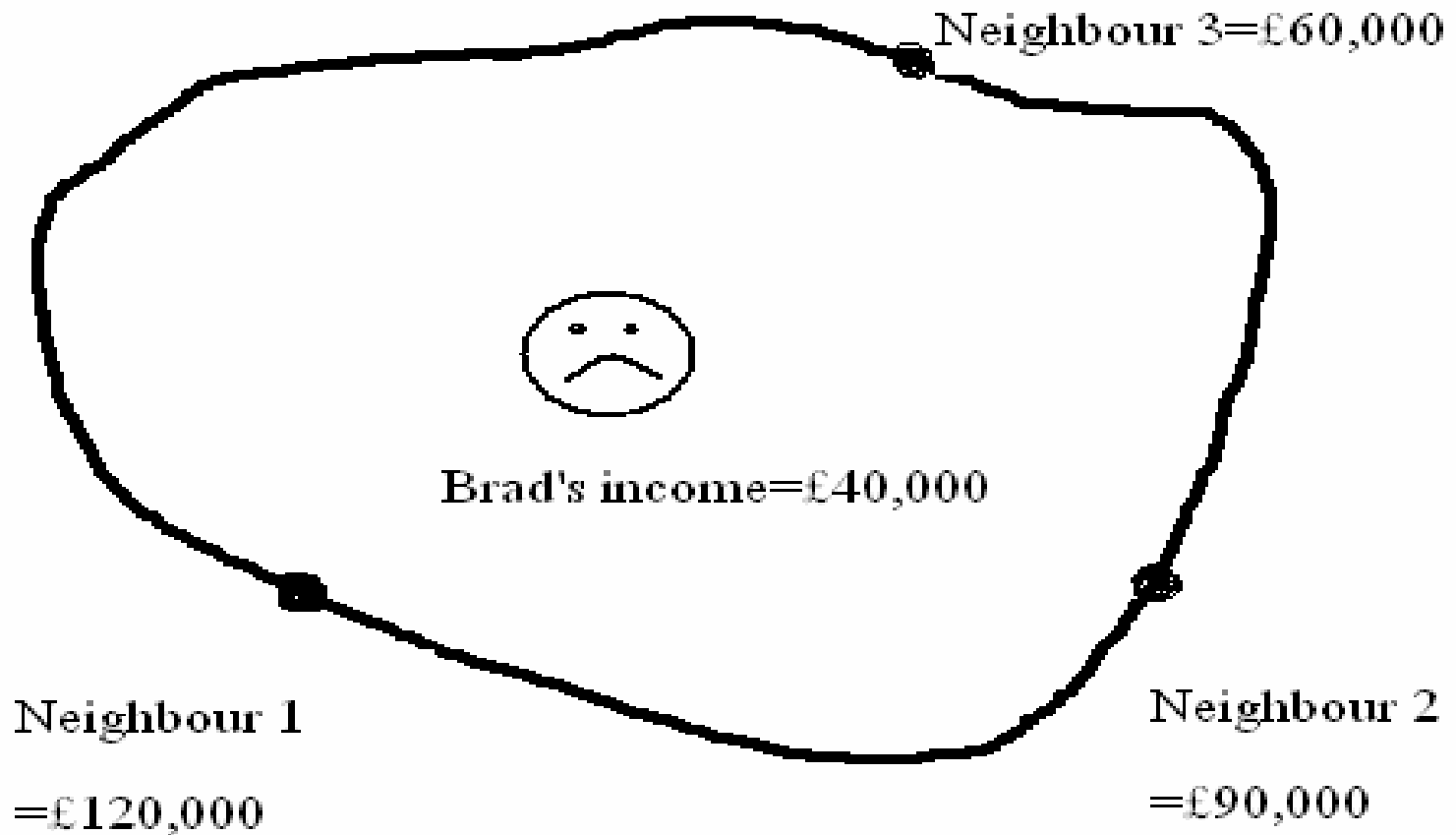
**So what exactly goes wrong  
when a wealthy country gets  
richer?**

**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



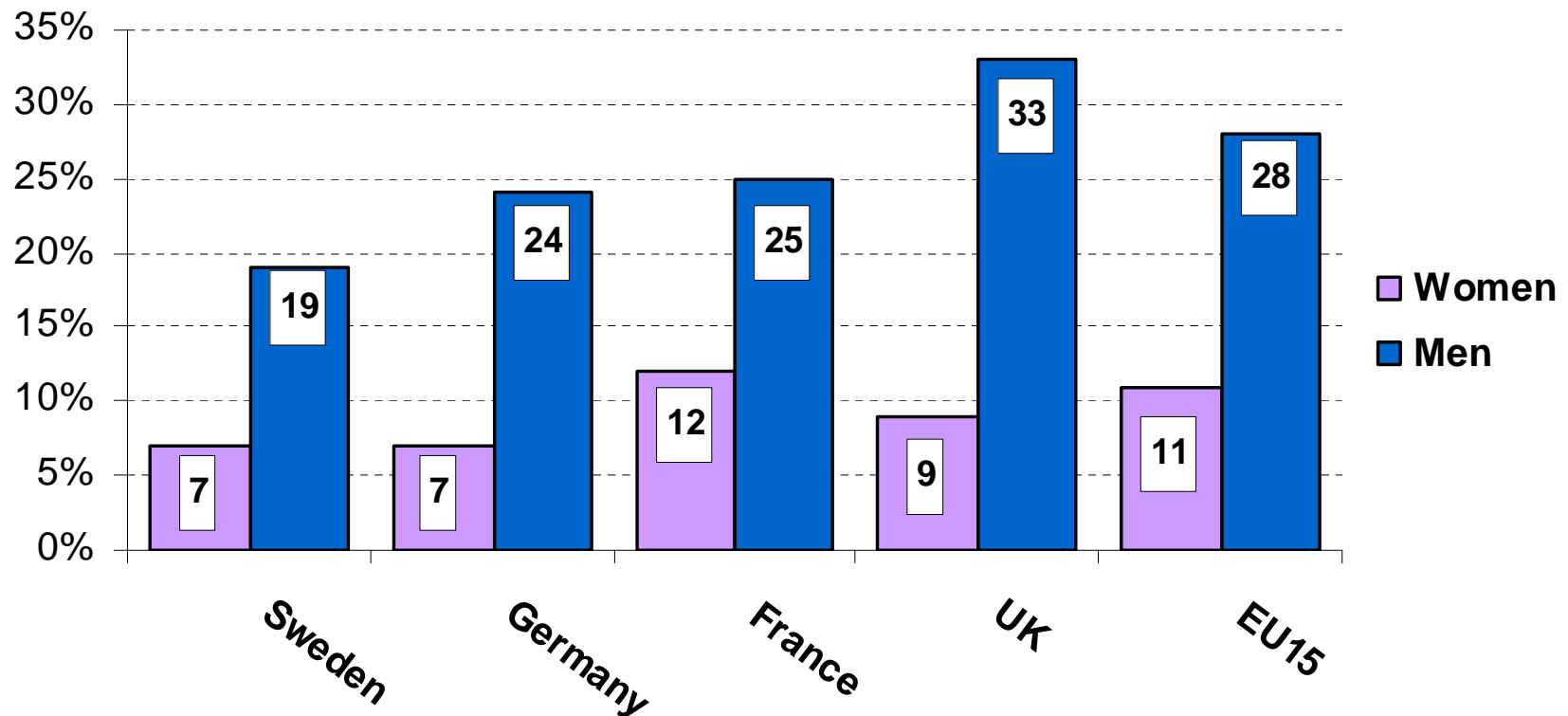
**Producing a happier  
society?**

# Possible 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*

**Some societies seem to have a work-life balance problem.**

## “I would like to spend much more time with my family” (% workers)

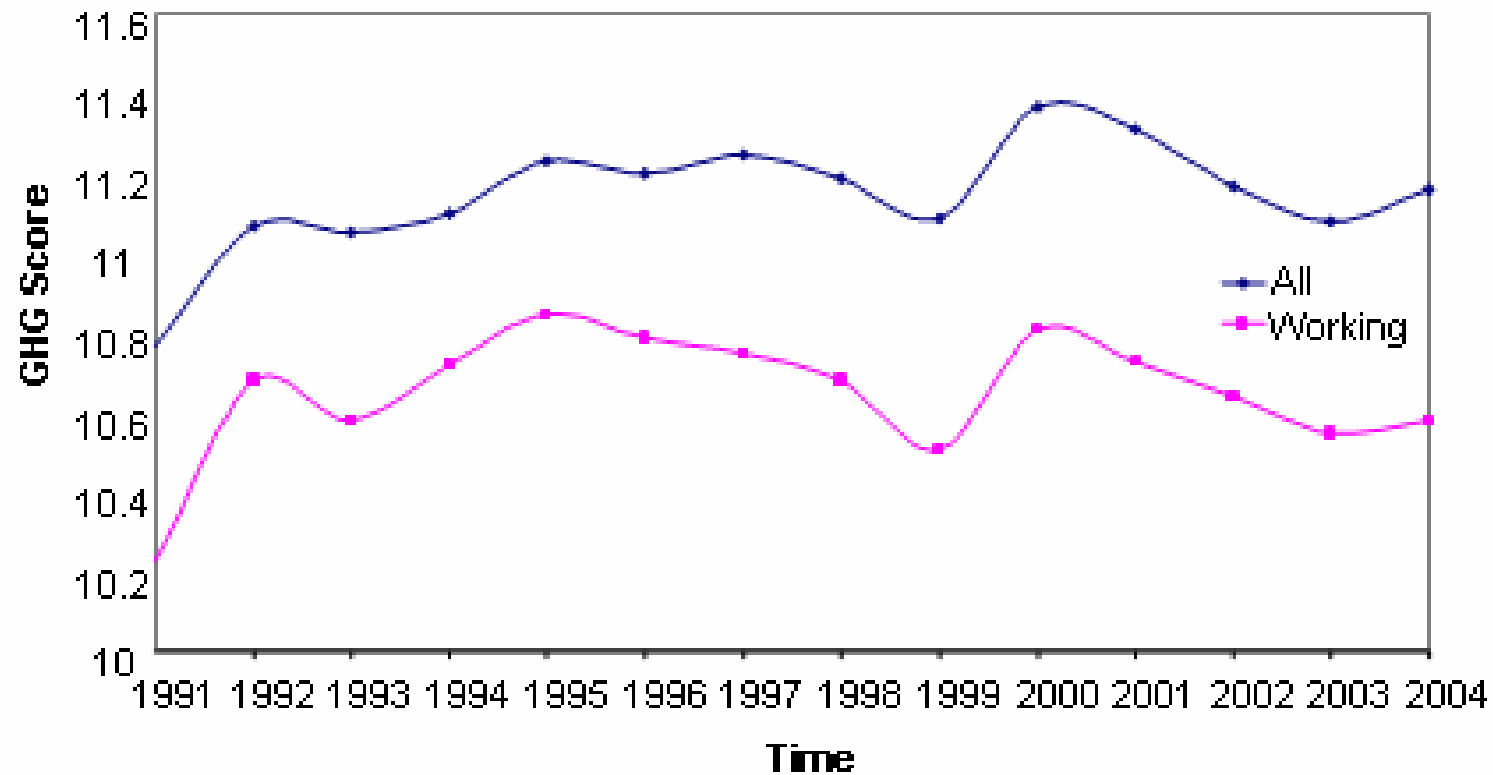
<b>USA</b>	<b>46%</b>	<b>New Zealand</b>	<b>26%</b>
<b>Great Britain</b>	<b>36%</b>	<b>Switzerland</b>	<b>23%</b>
<b>Sweden</b>	<b>32%</b>	<b>Italy</b>	<b>21%</b>
<b>Norway</b>	<b>27%</b>	<b>Netherlands</b>	<b>18%</b>
<b>Denmark</b>	<b>26%</b>	<b>Japan</b>	<b>9%</b>
<b>Canada</b>	<b>26%</b>	<b>Spain</b>	<b>8%</b>

Source: Blanchflower and Oswald (2000a) and International Social Survey Programme, 1997





Figure 8. GHQ stress score, BHPS, 1991-2004



# **New work on the long ‘shadow’ of childhood**

- **An individual’s happiness is lower if a parent died before they were 18**
- **His or her happiness is lower if the parents quarrelled frequently**
- **The effect of parental arguing on children’s happiness approximately disappears if the parents divorced**

***These findings hold  
in 16 countries.***

**We will continue to link up  
more with science and  
psychology researchers**

**Eg. studying cortisol levels.**

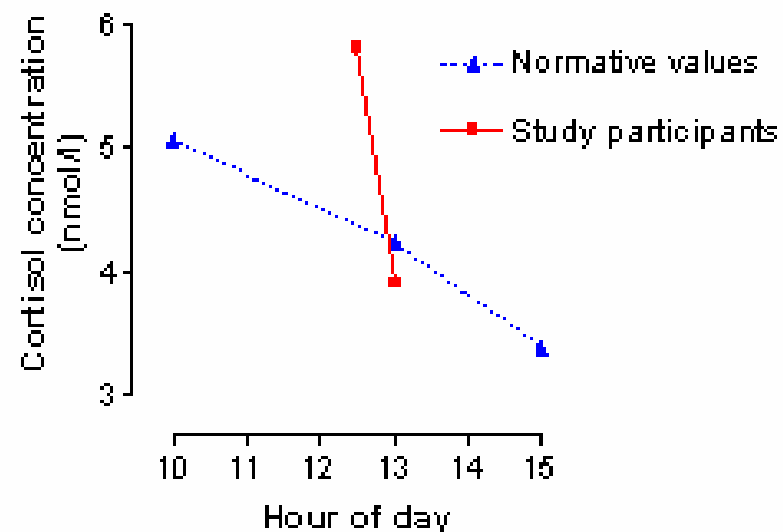
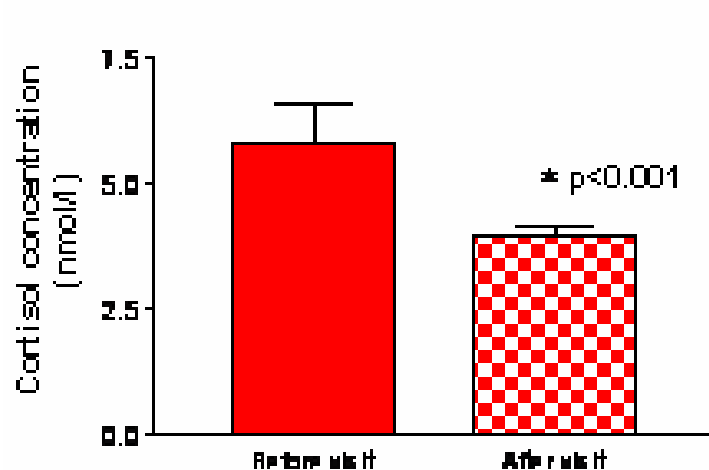
**Plus we are learning how to  
measure the value of subtle  
things (eg. Clow's work)**



# Cortisol levels can drop very fast in a pleasant situation: response to 35 minute art gallery visit

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# Blood pressure patterns too

- Denmark has the lowest reported levels of high blood pressure in our data
- Denmark also has the highest happiness levels
- Portugal has the highest reported blood pressure levels -- and the lowest levels of life satisfaction and happiness

Source: Blanchflower, D.G. and A.J. Oswald (2006d), "Hypertension and happiness across nations"



**What of broader economic  
and social policy itself?**



# 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 finding from our equations***

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

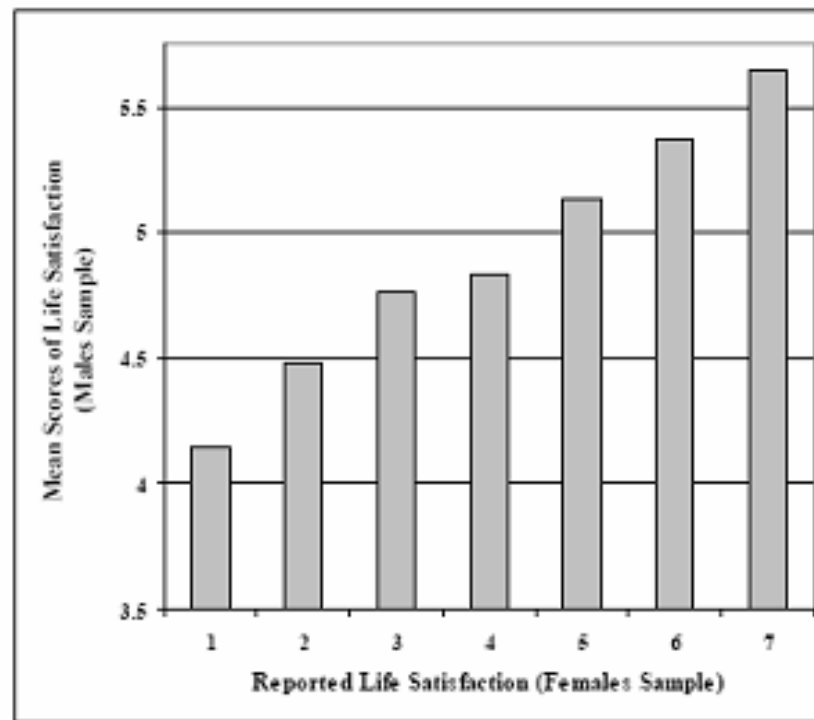
## How much are social relationships worth in terms of happiness?

	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).

# 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.

**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:**

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

## *The natural conclusion*

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



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

**GNH not GNP.**



**Thank you for coming**

# Happiness

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

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