

## **Lionel Robbins Memorial Lectures 2002/3**

# **HAPPINESS: HAS SOCIAL SCIENCE A CLUE?**

**Richard Layard**

**Lecture 1. What is happiness? Are we getting happier?**

**Lecture 2. Income and happiness: rethinking economic policy.**

**Lecture 3. How can we make a happier society?**

**To be delivered on 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> March 2003 in the Old Theatre,  
LSE at 6.00pm. Open to all.**

## **Lecture 1**

### **What is happiness? Are we getting happier?**

Definition

The fluctuation of mood

Evidence from neuro-science

The desire to feel good

The overall social outcome

Trends in happiness

Comparing happiness across countries

Trends in depression and crime

I'm delighted to be giving these lectures because when I was very young and impressionable, I had the great experience of working with Lionel Robbins. He was chairman of the Robbins Committee on Higher Education and in his autobiography he says that working with Claus Moser and me at that time was "one of the most rewarding experiences" of his life. I feel exactly the same. Discussing any issue with Lionel was like a great voyage of discovery, and, if anyone ever practised the evidence-based approach to social policy, it was him.

However in these lectures I shall be taking a very different line from the one he took on the subject of happiness, and a little intellectual history will set the scene for what I want to do.

In the eighteenth century Bentham and others proposed that the object of public policy should be to maximise the sum of happiness in society. So economics evolved as the study of utility or happiness, which was assumed to be in principle measurable and comparable across people. It was also assumed that the marginal utility of income was higher for poor people than for rich people, so that income ought to be redistributed unless the efficiency cost was too high.

All these assumptions were challenged by Lionel Robbins in his famous book on the Nature and Significance of Economic Science published in 1932. Robbins argued correctly that, if you wanted to predict a person's behaviour, you need only assume he has a stable set of preferences. His level of happiness need not be measurable nor need it be compared with other people. Moreover economics was, as Robbins put it, about "the relationship between given ends and scarce means", and how the "ends" or preferences came to be formed was outside its scope.

So this was to be the agenda of positive economics, and it has remained so to this day. But what are we to say about public policy? Robbins himself was not averse to public debate but he did not believe that optimal public policy could be analysed within a formal economic framework. However his followers in the remarkable economics department which he created here were more bold. Hicks and Kaldor proposed as a measure of national welfare something close to the GDP

adjusted for leisure and pollution. Though some economists (including some here) have objected to this,<sup>1</sup> the majority of economists work with it quite happily.

But in fact the GDP is a hopeless measure of welfare. For since the War that measure has shot up by leaps and bounds, while the happiness of the population has stagnated. To understand how the economy actually affects our well-being, we have to use psychology as well as economics. Fortunately psychology is now moving rapidly in the right direction and I hope economics will follow.

Interestingly, psychology like economics went through its behaviourist phase, but a little earlier. In the nineteenth century psychologists were allowed to talk about feelings. But then along came Pavlov, followed by Skinner, who argued that we can never know other people's feelings and that all we can therefore do is to study their behaviour. At that time behaviour was largely attributed to conditioning. You may know the story of how Skinner's students decided to test his theory. When he was lecturing, Skinner used to walk up and down the platform, and the students agreed that, whenever he went to the left part of the platform, they would look down and frown, and when he went to the right end they would look up and smile. After a short time they had him falling off the right of the platform.

So behaviourism was the intellectual climate of the 1930s and it is not surprising that economics absorbed that credo. But in the last 20 years psychologists have returned in strength to the study of feelings – measuring them, comparing them across people, and explaining them.<sup>2</sup> And many anthropologists have also concluded that there are important universals in human nature, without which it would be impossible for us to understand each other.<sup>3</sup>

So people concerned with policy can now revert to the task of maximising the sum of human well-being, based on a steadily improving social science. In these lectures I want to develop a picture of this project and some initial conclusions. What I shall do is this. In the first lecture I shall discuss the nature and measurement of

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<sup>1</sup> e.g. Meade, Sen, Atkinson, Mirrlees and others working mainly in the utilitarian tradition.

<sup>2</sup> Kahneman et al (1999).

<sup>3</sup> Brown (1991).

happiness and provide compelling evidence that, despite economic growth, happiness in the West has not grown in the last 50 years.

In the second lecture I shall ask **why** happiness has not increased, despite huge increases in living standards, and draw some startling conclusions about the efficient level of taxation. And in the third lecture I shall discuss what other policies really would produce a better quality of life. I shall end with a rousing defence of the utilitarian philosophy, which motivates this whole endeavour.

## DEFINITION

So what do I mean by happiness? By happiness I mean feeling good – enjoying life and feeling it is wonderful. And by unhappiness I mean feeling bad and wishing things were different. There are countless sources of happiness, and countless sources of pain and misery. But all our experience has in it a dimension which corresponds to how good or bad we feel. In fact most people find it easy to say how good they are feeling, and in social surveys such questions get 99% response rates – much higher than the average response rate to questions.

I want to stress the point about a single dimension. Happiness is just like noise. There are many qualities of noise, from a trombone to a caterwaul. But they can all be compared in terms of decibels. In the same way different types of pain, like toothache and tummy ache, can be compared, and so can different modes of enjoyment. Moreover, as I shall show, happiness and unhappiness are not separate dimensions; they are simply different points along a continuum. They may feel quite different, like heat and cold, but they are all part of the same phenomenon.

This is what Bentham thought, but John Stuart Mill of course made a distinction. He thought there were two dimensions of happiness, quantity and quality. However psychologists have not been able to identify a separate qualitative dimension. Mill was surely onto something, but what he should have said is that there

are different causes of happiness – those that produce enduring effects on happiness and those whose effects are transient.

## THE FLUCTUATION OF MOOD

Obviously people's feelings fluctuate from hour to hour and from day to day. Using peoples' own reports psychologists have begun to study carefully how peoples' mood varies from activity to activity. I will give only one example, from a study of around 1000 working women in Texas.<sup>4</sup> They were asked to divide the previous day into episodes, like a film. Typically they identified about 15 episodes. They then said what they were doing in each episode, and who they were doing it with. Finally they also asked how they felt in each episode, along twelve dimensions which were then combined into a single index of feeling. The first table shows what they liked most – sex, and what they liked least – commuting.

The second table shows what company they most enjoyed. They were highly gregarious – preferring almost any company to being alone. Only the boss's company was worse, which presumably means that there was little sex involved.

We can also use these reports to measure how feelings change as the day goes on. As the graph shows, people feel better as time passes, except for a dip after lunch (Figure 1). They also feel more tired as the day goes on – except for a period around about now (Figure 2). But the most striking finding of the study is not the movement in the graph as people move between activities but the huge difference in the general level of happiness between different people.<sup>5</sup> It is this underlying happiness and its determinants which these lectures are about.<sup>6</sup> What we really want to understand is

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<sup>4</sup> See Kahneman et al (2003) – reference needed. Add graph of tiredness.

<sup>5</sup> We can take the 13,000 episodes reported and divide the variance of happiness across these episodes into three additive effects: the fixed effect of the type of episode (as listed in Table 1), the fixed effect of the person, and an unexplained effect. Of the total variance, only 6% is due to the type of episode, while 40% is due to the person, leaving 54% unexplained..

<sup>6</sup> See Kahneman (1999). In principle we are interested in the objective reality of life as it was experienced. There is the well-known problem that people do not always recall their feelings accurately. In medical operations they tend to remember mainly the peak of pain and the degree of pain at the end of the operation, and not to remember how long the pain lasted. So ideally experience should be measured at the same time as it occurs. This can be done by the Experience Sampling Method (ESM). But, as Kahneman et al (2003) show, for our purposes asking them one day later gives similar results.

the average level of happiness which a person feels, when averaged over a long period of time.

**Table 1**  
**Happiness in different activities**

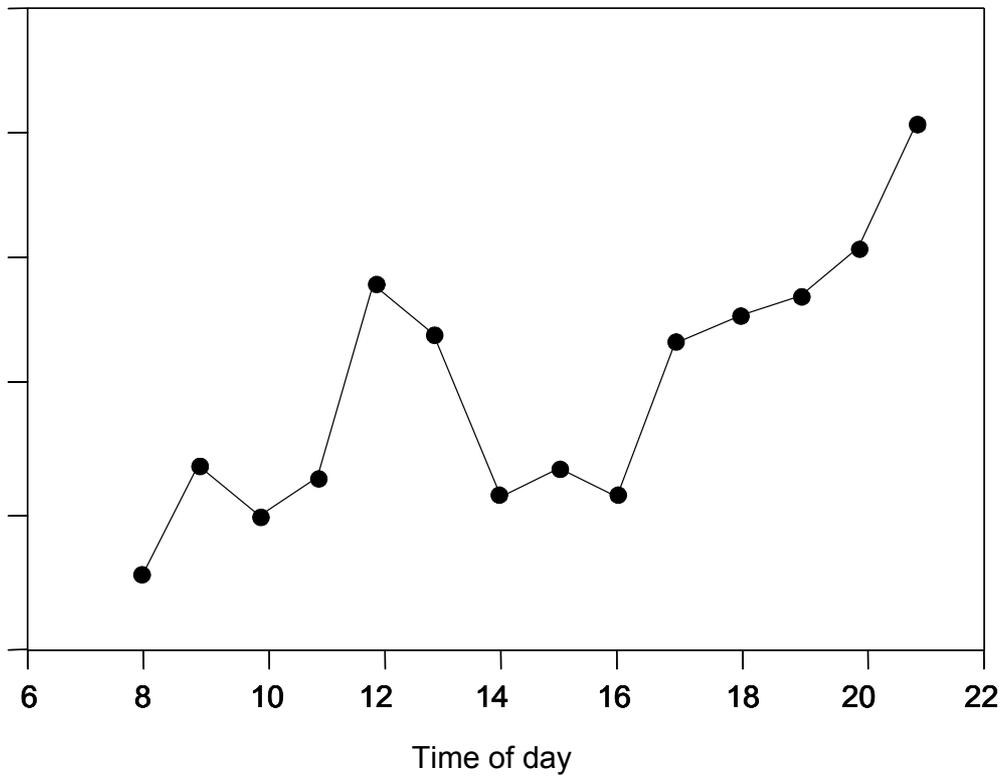
	<b>Happiness (index)</b>	<b>Average hours per day</b>
Sex	4.7	0.2
Socialising after work	4.1	1.1
Dinner	4.0	0.8
Relaxing	3.9	2.2
Lunch	3.9	0.6
Exercising	3.8	0.2
Praying	3.8	0.5
Socialising at work	3.8	1.1
Watching TV	3.6	2.2
Phone at home	3.5	0.9
Napping	3.3	0.9
Cooking	3.2	1.1
Shopping	3.2	0.4
Computer at home	3.1	0.5
Housework	3.0	1.1
Childcare	3.0	1.1
Evening commute	2.8	0.6
Working	2.7	6.9
Morning commute	2.0	0.4

Note: Based on Day Reconstruction Study. Average happiness is net affect.

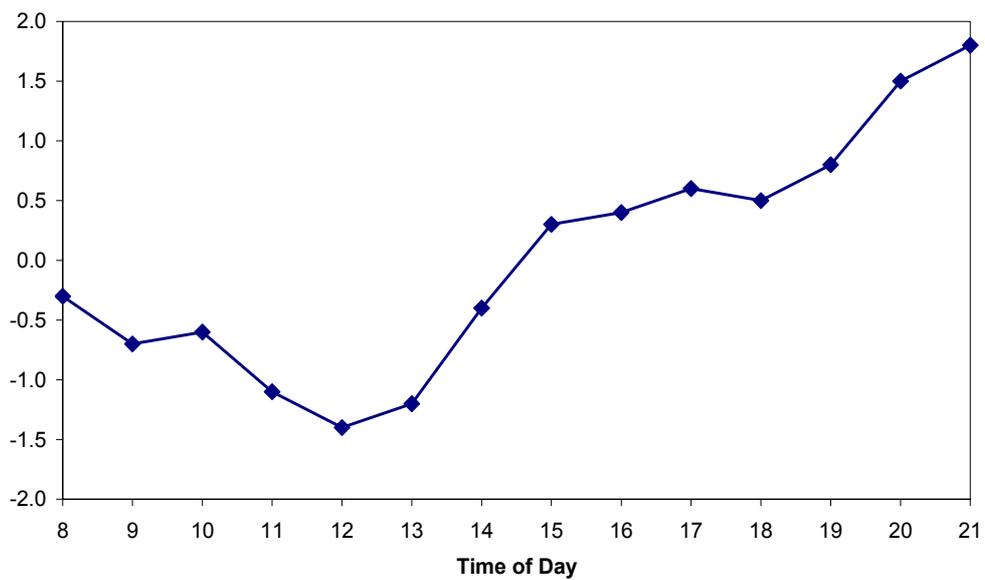
**Table 2**  
**Happiness while spending time with different people**

<b>Interacting with:</b>	<b>Average happiness</b>
Friends	3.3
Parents/relatives	3.0
Spouse	2.8
My children	2.7
Co-workers	2.6
Clients/customers etc	2.4
Alone	2.2
Boss	2.0

**Figure 1**  
Average happiness through the day



**Figure 2**  
Average tiredness through the day



## EVIDENCE FROM NEURO-SCIENCE

But before we do that we have to ask whether the feelings which people **report** correspond at all accurately to any kind of objective reality? We need to be sure that, when people say they feel something, there is a corresponding event that can be objectively measured.

We now know that there **is**. For the feelings which people report correspond closely to activities in the brain which we can now measure from instant to instant. This relationship is important to us for two reasons. First, the correlation applies quite accurately over time within each individual, providing a solid basis for the notion that happiness is a cardinal variable, rising and falling just like your blood pressure. And, second, the correlation holds strongly across people, confirming our view that happiness can be compared between people.

So let me tell you a bit about these findings, many of which are due to the remarkable work of Richard Davidson at Wisconsin.<sup>7</sup> The main finding is that positive feelings correspond to brain activity in the left side of the pre-frontal cortex, somewhat above and in front of the ear. And negative feelings correspond to brain activity in the same place on the right side of the brain. (All this is for right-handed people.) To detect the activity, you can use electrodes on the scalp to get an EEG which measures the electrical activity in that part of the brain. Or, more reliably, you can pick up the flow of oxygen to replace the energy used up in the electrical activity. This can be measured by functional magnetic resonance imaging (fMRI). Or, slightly less instantaneous, you can use the so-called PET scan to measure the blood flow using radio-active isotopes put into the blood.

All these methods give good correlations between reported feelings and brain measurements. Here is an example when people are put inside an MRI scanner and then shown nice or nasty pictures. People are shown the following two pictures: of a happy baby and of one that is severely deformed. The MRI scanner picks up the corresponding change in oxygen flow in the brain and records it as light patches in the

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<sup>7</sup> Davidson (2000).

following two photographs. The nice picture activates the left side of the brain and the horrendous picture activates the right side.<sup>8</sup>

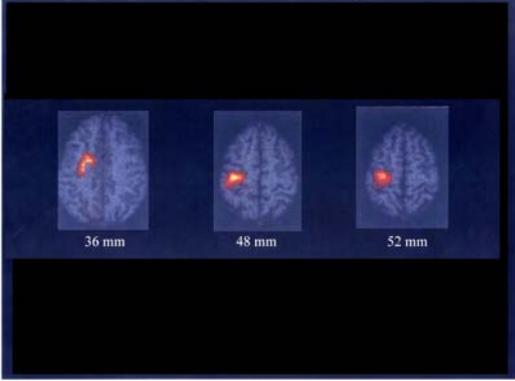
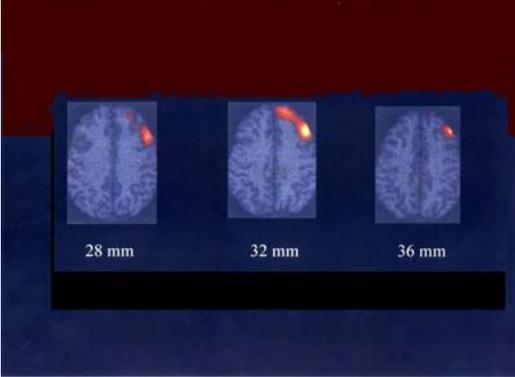
So here we have objective measurements of how feelings change over time. More important, the same measurements can also be used to compare the happiness of different people. For people differ in the pattern of their brain activity, even when they are at rest. People whose left side is especially active ('left-siders') report more positive feelings and memories than 'right-siders' do. Left-siders smile more and their friends assess them as happier. By contrast, people who are especially active on the right side tend to report more negative thoughts, to smile less and to be assessed as less happy by their friends. Interestingly, the EEG approach works even on newly-born babies. When given something nice to suck, their left fore-brain starts humming, while a sour taste sets off activity in the right brain. At 10 months old, a baby's brain activity at rest predicts how well it will respond if its mother disappears for a minute. Babies who are most active on the right side tend to howl, while the left-siders remain upbeat. And at 2½ years old, left-sided youngsters are more exploratory, while right-siders cling more to their mothers. However, fortunately, between the ages of 3 and 11 there are many changes in the ranking of children, both by character traits and by brain-waves.<sup>9</sup>

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<sup>8</sup> I am grateful to Richard Davidson for this material.

<sup>9</sup> Davidson et al. (2000).

**Figure 3**  
**The brain's response to two pictures**

Picture	
Happy	
Sad	
Brain response	
Happy	
Sad	

And what about the question of whether negative feelings are simply the negative end of positive feelings? The evidence supports this view. Provided we measure feelings over short periods of time, positive and negative feelings are strongly inversely correlated. This is true whether we are comparing the same individual at different moments of time, or comparing different individuals. And it is true whether we are using psychological reports of feeling or measurements on the brain. If feelings are measured over longer periods of time, the correlation goes down but this is because the variance of true happiness falls and gets buried under measurement error. So once again we can conceptually think of happiness as a single variable.<sup>10</sup>

Finally, let me mention that the measures of happiness that I have discussed are well correlated with many measures of physical health – with better immune-system responses and with lower stress-causing cortisol. As one example, when the flu virus was administered to a group of people, those with strong activity in the left forebrain were less likely to get ill.

## **THE DESIRE TO FEEL GOOD**

So I hope I have persuaded you that there is such a thing as happiness, as Bentham believed. But Bentham also believed that happiness matters because it is what people want. Indeed he argued that in the end all actions are driven by the desire to feel good. So what does modern psychology say?

Most psychologists believe two things about this. First they believe that we are always, often unconsciously, evaluating our situation and the elements in it. Second, we are attracted to the favourable elements and seek to have them or to prolong them; and we are repelled by the unfavourable elements and seek to avoid them or try to bring them to an end. Psychologists call this “approach and avoidance”.

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<sup>10</sup> For operational purposes we often find that the difference between positive and negative feelings, whether measured by self-report or readings on the brain, is the best measure of happiness – on the basis of its correlation with other measures of happiness, or with behaviour, or with physical health.

It is easy to see why evolution would have selected beings who behaved like this. First we like what is good for our survival. We then seek what we like. And so it follows that we survive.

The two psychological propositions are illustrated by two ingenious experiments of John Bargh.<sup>11</sup> His technique is to flash up good or bad words on a screen and observe how people respond. In one experiment he flashed the words subliminally and recorded the impact on the subject's mood. The good words improved mood and the bad ones worsened mood – showing the passive nature of the evaluation process. He next examined approach and avoidance behaviour by making the words on the screen legible but asking the subject to remove them with a lever. For group A the words were to be removed in the natural way by pulling for the good words and pushing for the bad. But group B had to pull for the bad words and push for the good which is unnatural. They did the job much more slowly.

So there is an evaluative faculty in all of us which tells us how happy we are and then directs our actions towards improving our happiness. From the various possibilities open to us, we choose whichever combination of activities will make us feel best.

This is not a vacuous statement, as is sometimes alleged. It means quite specifically that if a person likes A and B, and the cost of A in terms of B rises, the person will choose less A. This so-called law of demand has been confirmed throughout human life and among rats.<sup>12</sup> It is not uniquely human but probably applies to most living things, all of which have a tendency to pursue their own good as best they can. In lower animals the process is unconscious, and even in humans it is mostly so, since the conscious brain could not possibly handle the whole of this huge problem. However we do have a massive frontal cortex which other mammals lack, and that is where the conscious part of the balancing operation is performed.

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<sup>11</sup> Bargh and Chartrand (1999).

<sup>12</sup> Shizgal and Conover (1996).

This psychological model is very much like the one that economists have used from Adam Smith onwards. We want to be happy and we act to promote our own happiness, given the possibilities open to us.

There are of course exceptions. Some types of behaviour which are desired are bad for survival – anorexia is bad for you and so is cigarette smoking. And people are often short-sighted and bad at forecasting their future feelings. Natural selection has not produced perfect psyches nor has it produced perfect bodies. We are clearly selected to be healthy but we sometimes get sick. Similarly we are selected to feel good, and it would be impossible to explain human action and human survival except by the desire to achieve that feeling.

## **THE OVERALL SOCIAL OUTCOME**

And what is the result of this process? Good in parts. In the standard economic model, private actions and exchanges get us to a Pareto optimum where no one could be happier without someone else being less happy. There are of course problems of information, foresight, externality and economies of scale which require some collective action. But, broadly speaking, the economic model says that the higher the real wage the happier the population.

What is wrong with that model is that it assumes constant tastes. It fails to realise that our wants (once we are above subsistence level) are largely derived from society and that they are major factors affecting our happiness.<sup>13</sup> To a large extent we want things and experiences because other people have them. We are also products of our education and the moral values which we inherit. And we live in communities which can be more or less peaceful and trusting. All these outside influences come at us direct, and not through contractual agreements in which we exercise our choice.

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<sup>13</sup> As Karl Marx said “A house may be large or small; as long as the surrounding houses are equally small, it satisfies all social demands for a dwelling. But if a palace rises beside the little house, the little house shrinks into a hut”.

If these social influences were **unaffected** by economic policy and by economic ideology, we could think of economic policy in one compartment and social policy in another. But unfortunately the world is not like that, and rational policy requires the simultaneous use of many disciplines.

The need is pretty obvious, but one fact makes it absolutely essential. People in the West have got no happier in the last 50 years. They have become much richer, they work much less, they have longer holidays, they travel more, they live longer, and they are healthier. But they are no happier. This shocking fact should be the starting point for much of our social science.

So let me spend the rest of this lecture documenting this fact.

### TRENDS IN HAPPINESS

For the US the General Social Survey has asked the following question since the early 1970s, “Taken all together, how would you say things are these days – would you say you are very happy, pretty happy or not too happy”. Here are some answers (Table 3). As you can see, the distribution of happiness is practically unchanged over the period.

**Table 3**  
**Distribution of happiness in the U.S. (%)**

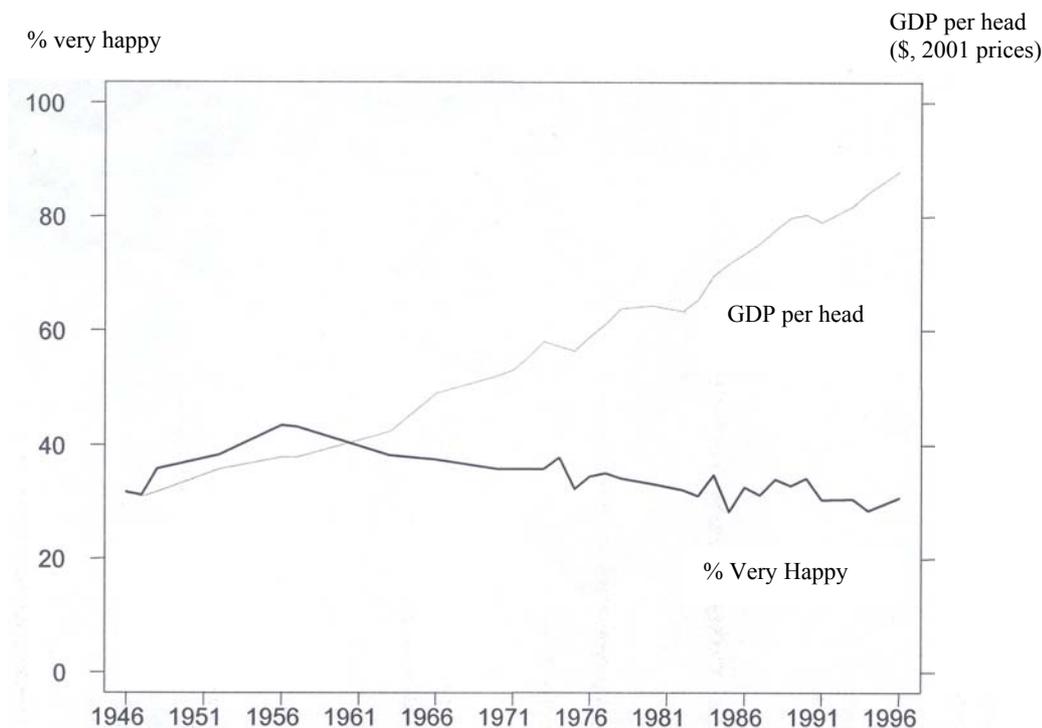
	1975	1996
Very happy	32	31
Pretty happy	55	58
Not too happy	13	11
	100	100

Source: General Social Survey. Persons over 15.

Before the early 1970s a similar question was asked by the Gallup organisation and in Figure 4 I have linked the two series together to show what proportion of people were very happy throughout the post-war period. As you can

see, the proportion of people who said they were very happy rose in the 1950s, fell in the 1960s and has been fairly stable ever since. The contrast with the trend in GDP per head is striking.

**Figure 4**  
**Income and happiness in the USA**



For Japan figures on happiness are also available on a continuous basis since 1950. They show no change in happiness despite a 6-fold rise in income per head.<sup>14</sup> In Europe the series collected by Eurobarometer began in the early 1970s. Again there has been no increase in happiness. And if we look at individual European countries separately, there has been no rise in happiness except in Denmark and Italy.<sup>15</sup>

These findings are all the more surprising since at any time within any community there is a clear relation between happiness and income. This is shown for example in Table 4. In 1975 39% of the rich (in the top quarter) were very happy, compared with only 19% of the poor (in the bottom quarter). This would lead you to

<sup>14</sup> Frey and Stutzer (2002), p.9

<sup>15</sup> Eurobarometer tapes from Eurostat. See also Inglehart and Klingemann (2000), Figure 7.1.

expect that when the people in the bottom quarter became richer, as they had by 1998, they would also have become happier. But they did not.

**Table 4**  
**Happiness according to income position, US, 1975**

	<b>Top quarter</b>	<b>Bottom quarter</b>
Very happy	41	26
Pretty happy	52	61
Not too happy	7	13
	100	100

Source: General Social Survey. Persons over 16. Family income

You can guess what kind of explanation I shall offer in the next lecture. But first let us test these facts. The sceptic's reaction is to say: People have simply shifted upwards the standard of happiness which they identify as "very happy". Their expectations of happiness have risen, so that, **although they are truly happier**, they do not report themselves as such.

There are two technical and two substantive reasons for believing that this is not the explanation. First, European survey data also tell us whether people are "satisfied with their life". The word satisfied has a more relativistic character than the word happy. So if rising expectations are distorting the reported trends of happiness in a downward direction, they should do so even more in the case of satisfaction. Yet trends in satisfaction are similar to those in happiness.

Moreover if people now expect to be happier than people used to be in the past, one would expect the biggest changes in expected happiness to occur between cohorts, rather than within cohorts. Yet within each cohort the level of happiness is remarkably flat over the lifespan, despite sharp rises in income over the lifespan.<sup>16</sup>

But these are technical arguments and the first main reason for believing the time-series is that it is reflected in the **cross-section** of countries. The second is the rise in depression and crime.

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<sup>16</sup> Easterlin (2001). Danny: Have we any time-series on affect balance?

## COMPARING HAPPINESS ACROSS COUNTRIES

Figure 5 shows the cross-section of countries. Income is on the horizontal axis and on the vertical axis is happiness measured by the average of two numbers: the percentage happy and the percentage who are satisfied with their life. As it shows, once a country has over \$15,000 per head, its level of happiness appears to be independent of its income per head. For poorer countries, however, there is a clear impact of income on happiness, which is also borne out by the time-series in India, Mexico and the Philippines. When you are near the bread-line, income really does matter. But, for countries above \$15,000 per head, the flat cross-sectional finding in the graph ought to bother economists just as much as the flat time-series.

If Figure 5 tells us something about economics, it also tells us something about politics. The most striking finding is the misery of Russia and South Africa, where oppression as well as poverty has degraded the human condition. At the height of Communism Russians were among the most miserable people on earth.<sup>17</sup> But the economic chaos which followed the collapse of Communism has made things even worse, for the time being. In the 1990s all the ex-Communist countries except Poland were more unhappy than India, and the suffering was greatest in what was once the Soviet Union.

Of course one could question whether the word 'happy' means the same thing in different languages. If it does not, we can learn nothing by comparing different countries. However countries can be rated separately on three different measures: how 'happy' they are, how 'satisfied' they are, and what score they give to life, using a scale running from 'worst possible life' to the 'best'. The ranking of countries is almost identical on all three measures.<sup>18</sup> This suggests that words are not causing a problem.

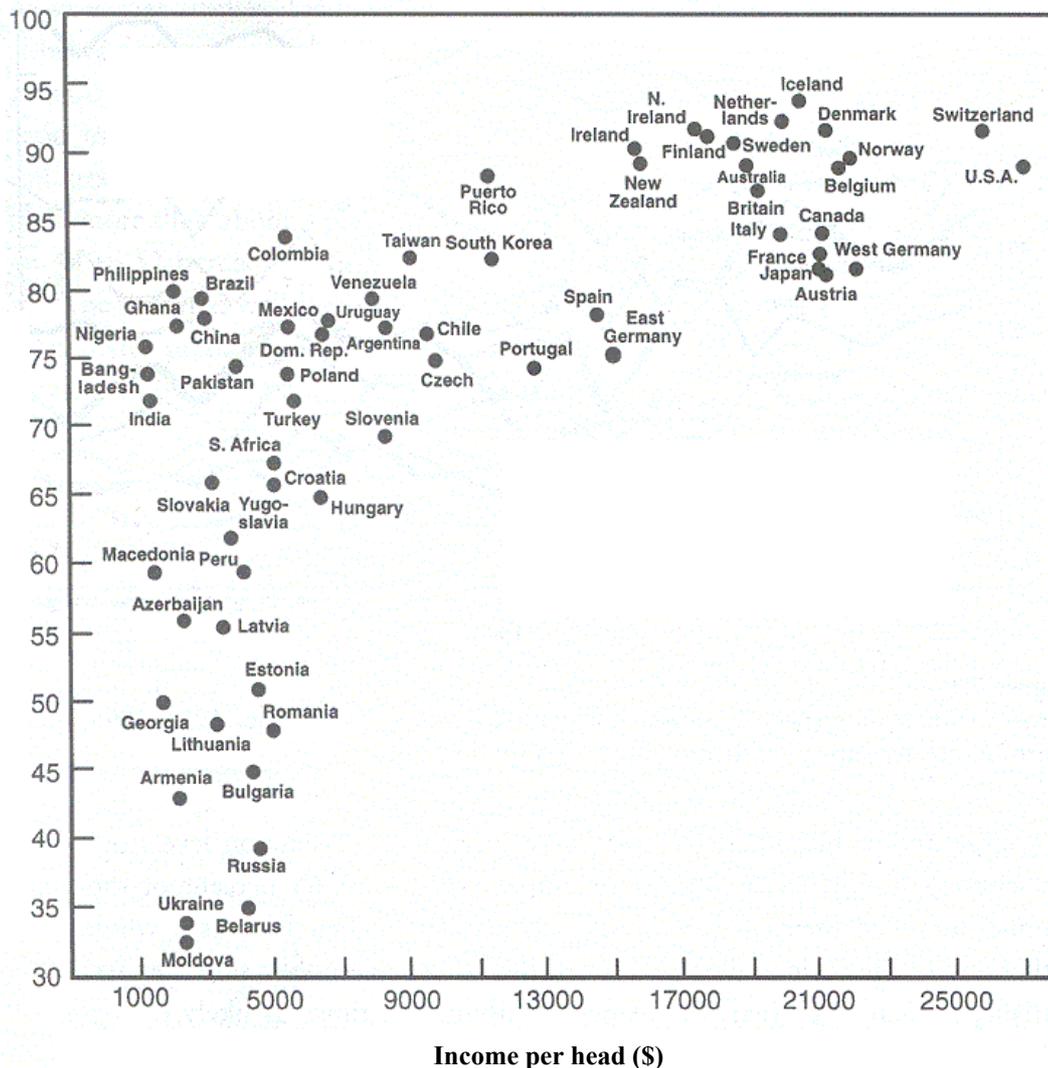
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<sup>17</sup> See Inglehart and Klingemann (2000), Fig 7.4.

<sup>18</sup> Veenhoven (2000) p.10,

**Figure 5**  
**Income and happiness**

Happiness (index)



Source: Inglehart and Klingemann (2000), Figure 7.2 and Table 7.1. Latest year (all in 1990s).

Moreover there is direct evidence, for a number of languages, that the words do have the same meaning in different languages. For example a group of Chinese students were asked to answer the happiness question, once in Chinese and once in English, with two weeks between the two events. The students reported almost exactly the same average level of happiness in both Chinese and English, and the answers in the different languages were highly correlated across the students.<sup>19</sup>

Since the English and Chinese languages are very far apart, this finding is highly reassuring. Similarly we can take the three groups of people in Switzerland –

<sup>19</sup> Shao (1993). Indeed the answers in the two languages were as consistent as the answers found in another group of Chinese students who were asked the same questions three weeks apart, using the Chinese language both times.

those speaking French, German and Italian. All three groups give similar replies to the question about happiness. And, interestingly, each group of Swiss people is happier than those who speak the same language but live next door in France, Germany or Italy. So the country and its life, rather than language, is the overriding factor which influences how people report their level of happiness.

But, again, might not people in some countries feel more impelled to report high or low levels of happiness, because of local cultural norms? There is no evidence of this – for example no clear tendency for individualistic countries to report high or collectivist cultures to report low.<sup>20</sup> And the concept of happiness seems equally familiar in all cultures – getting response rates of around 99% in every country.

So comparing countries confirms what history also shows – that, above \$15,000 per head, higher average income is no guarantee of greater happiness.

## **TRENDS IN DEPRESSION AND CRIME**

In any case we also have other time-series measures of national well-being, at the lower tail of happiness: we have the evidence of increased depression, alcoholism and crime.

All the evidence suggests that clinical depression has increased since the Second World War.<sup>21</sup> By clinical depression I do not mean the spells of misery that we all experience at some stage. I mean a tightly defined psychiatric condition in which individuals cannot perform their normal social roles for at least some weeks. To assess the prevalence of depression we rely on interview surveys where people report their experiences which are then diagnosed by specialists in the survey organisation. In the US roughly 14% of people aged 35 have experienced a depression. Many who have experienced it once have experienced it again, so that at any one time about 2% of the population are suffering from it.

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<sup>20</sup> Veenhoven (2000) p.10-11. Note also that happiness levels appear correlated across countries with data on mental stress given in Blanchflower and Oswald (2000a), Table 16. Needs checking.

<sup>21</sup> Fombonne (1995).

The main evidence of an increase comes from comparing the memories of people born in different years. If we take Americans who reached 35 in the 1950s, only 2% had experienced depression by that age. And now it is 14%. What is striking is that this recorded depression increased mainly in the golden period of economic growth in the decades after the Second World War. Increases are also found in most countries where data exist. There is some controversy over the magnitude of the increase, but no one believes depression has fallen despite the huge reduction in absolute poverty.

Suicide data provide less relevant evidence since in the typical country only about 1% of deaths are by suicide. So it is at the very extreme of misery. But suicide has indeed increased in most advanced countries except the US, Britain, Sweden and Switzerland, and youth suicide has increased in almost every advanced country.<sup>22</sup>

I shan't dwell on the growth of drug abuse, since this is partly propelled by easier access to the countries which supply drugs. But alcohol addiction is a very meaningful indicator of unhappiness. The history of alcoholism, is if I may say so, very sobering. In the first quarter of the twentieth century alcohol consumption fell in many countries, despite economic growth, and it stayed roughly constant in the second quarter. Since then it has soared in every country except France, which still consumes more alcohol than anywhere else. Much of this drinking is unhealthy. In the US over a quarter of young white men say they have already experienced problems with alcohol.<sup>23</sup> This compares with under 15% of older men (over 65) who say they have ever experienced such problems. The hardest evidence however is medical – deaths from cirrhosis of the liver are up since 1950 in every country except France.

And then there is crime – a similar story. In most advanced countries, crime fell in the years before the First World War, again despite economic growth. It was then stable between the Wars and most people thought that, if full-employment could be achieved, crime would fall still lower. The opposite happened. In most countries except Japan crime increased by a factor of around five between 1950 and 1980 – a

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<sup>22</sup> Dickstra et al (1995).

<sup>23</sup> Silbereisen et al (1995).

truly astonishing increase.<sup>24</sup> In Britain a third of all young men have been convicted of a crime by the time they are 30. If there is this degree of alienation, it is not surprising that the overall happiness figures have failed to rise.

## LOOKING AHEAD

So what is going on? In the next lecture I shall try to provide some answers, and then discuss what policies might lead us in a better direction. The dominant issue will be the trade-off between economic growth and the social costs which might result from policies to maximise growth.

But let me finally look back on what we have done so far.

1. I've argued that rational policy-making is possible since happiness is a real scalar variable and can be compared between people. I've given evidence that both these conditions are satisfied. We're at the very beginning of developing this knowledge and these measurements. But we know enough to see the way ahead.
2. We also know that happiness is basic to human motivation, even though we often do act in ways that are against our overall interest.
3. We have found that happiness has not increased in the last 50 years. That should not depress us, because we probably live in the happiest society that has ever existed. But it would be good if we could do better, especially for the people who are least happy.

That is what I want to discuss in the next two lectures.

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<sup>24</sup> Smith (1995). The crime figures are based on police records but since 1980 trends in police records are similar though not identical to those based on victim studies.

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