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# Happiness and Economic Performance

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## Abstract

If a nation's economic performance improves, how much extra happiness does that buy its citizens? Most public debate assumes -- without real evidence -- that the answer is a lot. This paper examines the question by using information on well-being in Western countries. The data are of four kinds: on reported happiness, on reported life satisfaction, on reported job satisfaction, and on the number of suicides. These reveal patterns that are not visible to the anecdotal eye.

In industrialized countries, well-being appears to rise as real national income grows. But the rise is so small as to be sometimes almost undetectable. Unemployment, however, seems to be a large source of unhappiness. This suggests that governments ought to be trying to reduce the amount of joblessness in the economy. In a country that is already rich, policy aimed instead at raising economic growth may be of comparatively little value.

## **Happiness and Economic Performance**

Andrew J. Oswald

Those who say that money can't buy happiness don't know where to shop.

Anon.

Do you think your children's lives will be better than your own? Probably not; nobody does these days ... In all countries there is doom and gloom, a universal sense of decay.

Norman Stone, historian.

What we call happiness in the strictest sense of the word comes from the (preferably sudden) satisfaction of needs which have been dammed up to a high degree.

Sigmund Freud, psychologist.

Happiness is the sublime moment when you get out of your corsets at night.

Joyce Grenfell, actress.

### Introduction

Economic performance is not intrinsically interesting. No-one is concerned in a genuine sense about the level of gross national product last year or about next year's exchange rate. People have no innate interest in the money supply, inflation, growth, inequality, unemployment, and the rest. The stolid greyness of the business pages of our newspapers seems to mirror the fact that economic numbers matter only indirectly.

The relevance of economic performance is that it may be a means to an end. That end is not the consumption of beefburgers, nor the accumulation of television sets, nor the vanquishing of some high level of interest rates, but rather the enrichment of mankind's feeling of well-being. Economic things matter only in so far as they make people happier.

This paper is concerned with the economics of happiness. Unlike gross domestic product and inflation, happiness is not something that governments try

to record from year to year. This essay will show that they could and, for the issues of Economic Trends in the next century, possibly should<sup>1</sup>.

Most politicians who pronounce about the economic matters of the day do so under a set of assumptions about human enjoyment that are usually not articulated to the listener. The chief of these, perhaps, is the belief that by raising its output and productivity a society truly betters itself. Real income has been rising in the Western countries for a long time. Like most other industrialized nations, Britain is approximately twice as rich as it was as recently as 1960, and almost three times richer than after the War. Has this new real income -- an enormous improvement by the standards of the last few centuries -- bought extra happiness? If so, how much, and what should governments now be trying to do? If not, why not, and what should governments now be trying to do?

Deciding how much authentic well-being is bought by economic progress is a difficult task. It seems logically necessary, however, if economic and social policy is to be designed in a rational way. If taxpayers' pound notes can be thought of as seed-corn, they could be scattered upon ground devoted to raising innovation and economic growth, or, for example, upon that aimed at combating social problems, or upon something different. Society has to pick those places to throw the seed-corn especially thickly. It is not easy to know how such choices can be made in a systematic way. However, a social scientist might help those

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<sup>1</sup> Should economists study happiness, one might ask? There are some natural answers. First, presumably this subject really matters. Second, psychologists have for many years worked with data on self-reported happiness. They ought to know more about human psychology than we do. Third, there are grounds -- laid out later -- to believe that subjective well-being can be studied in a systematic way. Well-being regression equations have the same structure all over the world. Fourth, subjective wellbeing measures are correlated with observable phenomena. For example, people who report high happiness scores tend to laugh and smile more, and to be rated by others as happier (Pavot et al, 1991; Diener, 1984; Watson and Clark, 1991). Fifth, we might be able to use happiness data to test old ideas in new ways. For example, if one wished to know whether inflation is bad, one might ask whether, in inflationary periods, people en masse unknowingly tick lower down their happiness score sheets (Di Tella, MacCulloch and Oswald, 1996).

who mould policy if he or she could point to unnoticed patterns in data on happiness and satisfaction. This paper takes a small step along that path.

### I. Happiness and Real Income in the USA

Later pages use the answers that people give when asked questions about how happy they feel with life or how satisfied they feel with their job and work. There are limitations to such statistics, but, if the aim is to learn about what makes people tick, listening to what they say seems likely to be a natural first step. Sources of information exist that have for many years recorded individuals' survey responses to questions about subjective well-being. These responses have been studied intensively by psychologists<sup>2</sup>, studied a little by sociologists, and ignored by economists<sup>3</sup>. Some economists may wish to defend this neglect by emphasising the unreliability of such data. Most, however, are probably unaware that data of this sort are available, and have not thought of how such empirical measures might be used in their discipline.

Richard Easterlin (1974, 1995) was one of the first economists to study statistics over time on the reported level of happiness. His data came from the United States. Easterlin's 1974 paper's main objectives were, first, to suggest that individual happiness appears to be the same across poor countries and rich countries, and, second, to argue that economic growth does not raise well-being. Easterlin suggested that we should think of people as getting utility from a comparison of themselves with others close to them: happiness is relative. The modern stress on the benefits of higher total national income is then misplaced,

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<sup>2</sup> Recent work includes Argyle (1989), Douthitt et al (1992), Fox and Kahneman (1992), Larsen et al (1984) and Mullis (1992). Comparatively little research seems to have addressed the issue of how well-being changes through the years.

<sup>3</sup> Andrew Clark's recent work (for example, 1992, 1996a,b) is an exception.

because individuals all move up together. A similar theme is taken up in Hirsch (1976) and Scitvosky (1976), and still more recently in Frank (1985)<sup>4</sup>.

Easterlin (1974) suggested a test for whether greater riches had made Americans happier. He looked at whether reported happiness rose as national income did. His paper concludes: "... in the one time series studied, that for the United States since 1946, higher income was not systematically accompanied by greater happiness" (p.118). This result would mean that economic growth does not buy well-being.

Unfortunately, it is not obvious that Easterlin's data entirely support his conclusion. For example, his longest consistent set of happiness levels show the following for the percentages of Americans saying they were "very happy" and "not very happy" (the highest and lowest of three bands into which they could place themselves):

Happiness in the USA from the 1940s-1950s

<u>Date</u>	<u>% Very Happy</u>	<u>% Not Very Happy</u>	<u>N</u>
1946	39	10	3151
1947	42	10	1434
1948	43	11	1596
1952	47	9	3003
1956	53	5	1979
1957	53	3	1627

*Source: Table 8 of Easterlin (1974) using United States AIPO poll data*

Other data -- using statistics with breaks and changes in definitions -- given by Easterlin differ. But the above is the longest consistent series and might be

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<sup>4</sup> Fred Hirsch was a Warwick professor in the 1970s. Sadly, he died young.

thought to command the most weight. According to these data, well-being did rise through time in the USA<sup>5</sup>.

A more modern calculation can be done with the General Social Surveys of the United States, which have for many years been interviewing people annually about their levels of happiness. These surveys are of randomly selected samples of Americans, so the information they provide can be treated as representative of the nation as a whole. GSS data are available for almost all of the years from 1972 to the 1990s (there are no data for 1979 or 1981). The size of sample averages approximately fifteen hundred individuals per annum. Different people are interviewed each year: the GSS does not follow the same individuals.

Is American getting happier as it gets richer? Table 1 tabulates for three years the raw answers to the question:

"Taken all together, how would you say things are these days -- would you say that you are very happy, pretty happy, or not too happy?" (GSS Ques. 154-156)

The first thing that is noticeable is that "pretty happy" is the typical answer, and that "not too happy", which is the lowest score people can assign themselves, is given by slightly more than a tenth of the population.

First indications from Table 1 are not encouraging to the idea that growth leads to more well-being. There is little sign of a time trend in the answer "very happy". The proportion of American respondents saying this was around one third both early in the 1970s and late in the 1980s. Over the period, however, a declining number of people seem to say that they are not too happy, and more state that they are pretty happy.

The raw data are consistent with the view that the category "pretty happy" is expanding while "not too happy" is shrinking. Nevertheless, the effect is not

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<sup>5</sup> The new paper by Easterlin (1995) presents modern US data showing that the % of people "very happy" did not rise between 1972 and 1991. This appears a touch misleading, because the % unhappy fell quite markedly.

dramatic, and these are only raw data that may be being moulded predominantly by a population that is changing its composition. Blanchflower, Oswald and Warr (1993) explore the matter more systematically. They examine whether there is an upward trend in well-being after controlling for demographic and other compositional changes in the American economy. Their conclusion is that there is a positive time trend, but that it is very slight. Intriguingly, there seems to be evidence of a cycle in happiness (especially for men). Blanchflower, Oswald and Warr show that the rise in happiness has not been spread evenly. It seems that American men have got happier while American women have experienced little growth in subjective well-being. Blanchflower and Oswald (1996) find some evidence that the young are growing relatively happier.

These results are not consistent with the conclusion of Easterlin (1974) that, perhaps because of ever-increasing aspirations and concern for relativities, the human lot does not improve over time. They are more like the arguments of Andrews (1991) and Veenhoven (1991). Nevertheless, Easterlin was on the right track. It may be correct to suggest that little national happiness is bought by rising national income.

Finding 1 *Happiness with life appears to be increasing in the USA. The rise is so small, however, that it seems extra income is not contributing dramatically to the quality of people's lives.*

## II. Satisfaction with Life: Europe Since 1973

There is similar information for European countries. Although no economists seem to have used the data, the Eurobarometer Survey Series asks:

"On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the life you lead?"

Answers are available for random samples, from 1973 to the present, of approximately 1000 people per year per country. The nations are Belgium,

Denmark, West Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Great Britain. Surveys have been held twice a year in each European Community country. Because of their late entry to the EC, there is no full run of data for Spain, Portugal and Greece. A valuable source of information about the Eurobarometer surveys is the comprehensive study by Inglehart (1990), who uses them to study changing cultural values.

Table 2 reports some of the data on life satisfaction for these countries. The first thing that is obvious is the large differences across nations. In Denmark, for example, more than half the population say they are "very satisfied", while in Italy the figure is around one in ten. These divergent numbers are likely to reflect cultural and linguistic differences. This is partly the difficulty of translation (words like happiness, contentment and satisfaction have subtle distinctions in English, and in other languages). But it is not all variation in language. As Inglehart (1990) points out, Switzerland makes an ideal laboratory to test this. German-speaking Swiss, French-speaking Swiss, and Italian-speaking Swiss all express higher satisfaction levels than do native Germans, French and Italians.

The second thing that is noticeable is that well-being is not moving uniformly upwards. Table 2 calculates from country to country the mean level, for each of the two halves of the period, of those answering "very satisfied". This smooths out some of the (fairly large) fluctuations in people's year-to-year answers. Thus in the period 1973-1981 in Belgium, for example, on average 39.7% of the people interviewed said that they were very satisfied with their lives. Over the ensuing decade, this figure dropped dramatically. For 1982-1990, the proportion of respondents saying very satisfied was 24.7%. This evidence shows no gain over time of the sort to be expected if real income growth raises well-being. However, as the rest of Table 2 reveals, Belgium is not

typical. Denmark, France, West Germany, Italy, Luxembourg and Netherlands all record increases in the numbers of individuals saying they feel very satisfied with life. Ireland posts a large drop. The UK experiences a small fall.

There is only slight evidence here that greater economic prosperity leads to more well-being in a nation:

Finding 2 *Since the early 1970s, reported levels of satisfaction with life in the European countries have on average risen very slightly.*

There is another way to measure well-being, and that is to study psychiatric measures of mental distress. The new British Household Panel Study gives mental well-being scores from a form of psychiatric evaluation known as the General Health Questionnaire. The first sweep of the British Household Panel Study provides information, for the year 1991, about a random sample of approximately six thousand working Britons. One way to assess these people's feelings of subjective well-being is to use their scores from the General Health Questionnaire (GHQ) section of the survey. Argyle (1989) argues that a GHQ assessment is one of the most reliable indicators of psychological distress or 'disutility'. In its simplest form this assessment weights the answers to the following set of questions.

Have you recently:

- \*1. been able to concentrate on whatever you are doing?
- 2. lost much sleep over worry?
- \*3. felt that you are playing a useful part in things?
- \*4. felt capable of making decisions about things?
- 5. felt constantly under strain?
- 6. felt you couldn't overcome your difficulties?
- \*7. been able to enjoy your normal day-to-day activities?
- \*8. been able to face up to your problems?

9. been feeling unhappy and depressed?

10. been losing confidence in yourself?

11. been thinking of yourself as a worthless person?

\*12. been feeling reasonably happy all things considered?

People's answers to these questions are coded on a four-point scale running from "disagree strongly" to "agree strongly". Starred items are coded in reverse, so that, for example, zero then corresponds to "agree strongly". These twelve are then combined into a total GHQ level of mental distress in which high numbers correspond to low feelings of well-being. The data provide a mental stress or, much less accurately, unhappiness level for each individual in the sample.

There are various ways to work with GHQ responses. One is to calculate so-called Caseness scores. These are produced by taking people's answers to the twelve questions that are listed above and summing the number of times the person places himself or herself in either the fairly stressed or highly stressed category. With this method, the lowest possible level of well-being corresponds to a caseness level of 12 (meaning that the individual felt stressed on every one of the twelve questions). The highest level of well-being corresponds to 0 (meaning that the individual felt stressed on none of the twelve questions). Individuals with high caseness levels are viewed by psychologists as people who would benefit from psychiatric treatment.

The British Household Panel Survey data show that income has no strong role to play, but that joblessness does. Clark and Oswald (1994) fail to find any statistically significant effect from income. The sharp impact of unemployment, however, is illustrated by Tables 3 and 4. These use data on six thousand British workers in 1991. Mental distress is twice as high among the unemployed as among those who have work.

Interestingly, research suggests that the worst thing about losing one's job is not the drop in take-home income. It is the non-pecuniary distress. To put this differently, most regression results imply that an enormous amount of extra income would be required to compensate people for having no work.

Eurobarometer data, in Table 5 and Figure 1, also show that the unemployed feel much less satisfied with life<sup>6</sup>, and indicate that the relative distress from unemployment does not appear to be trending downwards through the years (the 'unhappiness gap' is not secularly shrinking). In passing, this might be thought to raise doubts about the oft-expressed view that an increasingly generous welfare state is somehow at the root of Europe's economic problems. A review of psychologists' earlier work is available in Warr et al (1988)<sup>7</sup>. The upshot of all this evidence is:

Finding 3 *Unemployed people are very unhappy.*

More generally, it is now well-known that there are systematic patterns in micro data on people's subjective well-being. In other words, if one takes a random sample of people, and estimates a well-being regression equation of form 'reported well-being = f(personal characteristics)', the results tend to be the same across different periods, different countries, and even different measures of well-being. Summarizing:

Finding 4 *Reported happiness is high among those who are married, on high income, women, whites, the well-educated, the self-employed, the retired, and those looking after the home. Happiness is apparently U-shaped in age (minimizing around the 30s).*

These stem from coefficients in cross-section equations, but some have been verified in panel data.

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<sup>6</sup> Longitudinal studies by psychologists have demonstrated that this is not merely because unhappy people have trouble finding jobs.

<sup>7</sup> New work by Kammerling and O'Connor (1993) shows that around Bristol the local area unemployment rates are strong predictors of the rate of psychiatric admission by area.

### III. Extreme Unhappiness: Suicide and Attempted Suicide

Getting information on high levels of happiness is likely to be difficult, because there is no need for such statistics to be recorded. There is, however, a method of studying the other extreme.

Suicide is a significant cause of death across the world. In Denmark it accounts for approximately 1 in every 3,000 deaths; in Britain the figure is approximately 1 in every 12,000 deaths; in the United States of America around 1 in every 7,000 deaths are the result of suicide. Large numbers of people, therefore, take the decision that life is not worth living. Moreover, the numbers just given understate what is really happening. First, most writings on the subject express the view that, for understandable reasons, suicide statistics are probably under-reported versions of the truth. Second, the number of individuals attempting suicide is much larger than of those who do kill themselves.

The medical term for attempted suicide is para-suicide. Data in Smith (1985) record the probably little-appreciated fact that in Britain a fifth of all emergency admissions to hospital are due to para-suicide. Dooley et al (1989) report that para-suicide is between 8 and 20 times more common than successful suicide. Five million Americans, they estimate, have attempted suicide at some time in their lives. The data that Platt and Kreitman (1985) gather on Edinburgh males suggest that, among unemployed men in the lowest social class (Class V), one in twenty try to kill themselves in a given year.

Is this topic best left to doctors? Although analysis has a long history (Durkheim 1897 being a landmark), most social scientists are not used to working with suicide statistics. Economists, especially, are likely to see this area as far from their usual concerns, and of little relevance to them.

This attitude may not be the right one. As writer Wilfred Sheen remarked: suicide is about life, being in fact the sincerest criticism that life gets. If the aim is to understand human well-being and the value of life, suicide data offer rich -- though upsetting -- information that would be impossible to glean in any other way. The reason is that suicides represent choices in response to (un)happiness that are intrinsically more compelling than replies made to happiness survey questions, and data that, by their nature, cannot be generated in a laboratory experiment. It might, of course, be argued by a social scientist that suicide decisions are not rational. Perhaps they are simply a sign of mental illness, and therefore do not contain reliable information. Medical opinion has debated this view and not accepted it in a wholehearted way. There is evidence that suicides occur more frequently both among those who in an objective sense have the least to live for, and after unpleasant events in a person's life. The latter include unpleasant economic events. Humphry (1992) and Richman (1992) discuss the notion of, and evidence for, rational suicide.

For the post-war period, suicide is dropping through time. By such a benchmark, life looks like it is improving. There is little reason to impute causality, but the data do not contradict the natural idea that greater real income might make fewer people so miserable that they want to kill themselves. Data for the whole century, in so far as they are reliable, suggest the same. In 1911, 2600 men committed suicide in England and Wales. In 1990, 2800 did so. The population over that period nearly doubled. In this sense, extreme unhappiness might be said to be dropping. Historical statistics also reveal that total suicide deaths reached their maximum in the Great Depression, which is consistent with the idea that economics may have some role to play in this area.

Figure 2 provides data on a dozen rich countries. Although it would probably be unwise to read too much into the plot, high real income is positively, not negatively, correlated with the suicide rate.

To explore the idea that money buys happiness, it might be natural to look at data on suicide and low income. This can be done in an indirect way. Charlton et al (1992) show that the suicide death rate is largely independent of social class. Thus, roughly speaking, economically prosperous people do not take their own lives less than the poor. There is one type of exception to this: those men unemployed and seeking work at census were at 2-3 fold greater risk of suicide death than the average, Charlton et al (1992). The study by Platt and Kreitman (1985) produces Table 6, on parasuicide by length of joblessness. It shows that being without work is associated with a twelve times greater-than-average chance of attempted suicide, and that the long-term unemployed are especially at risk.

There is a little evidence that time-series movements in unemployment are accompanied by movements in suicide. Populations Trends of Spring 1994 recorded that fact that, among men, suicide has been rising in almost all Western countries since the early 1970s. This period coincides with the mushrooming of unemployment.

Divorce and being single are apparently also significant triggers of suicidal behaviour. In the words of Charlton et al, there may be a protective effect from marriage. Married men commit suicide -- holding age constant -- only one third as often as others.

Finding 5 *Consistent with the patterns in happiness data, suicidal behaviour is more prevalent among men, the unemployed, and those with marital problems. Over the long run, as Britain has got richer, the suicide rate has declined (though*

*this is not true for men since the 1970s). Rich countries apparently have more suicides.*

Finding 6 *High unemployment may swell the number of people taking their own lives. Suicide data suggest that joblessness is a major source of distress.*

#### IV. Job Satisfaction in Britain and the USA

On the grounds that work is a big part of life, this section examines information about job satisfaction. Following Blanchflower, Oswald and Warr (1993), data are available for Great Britain and the USA. The General Social Surveys of 1972-1990 are again the source of US information. The relevant question, asked of approximately 13,000 workers, is:

"On the whole, how satisfied or dissatisfied are you with the work you do -- would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?" (GSS Ques.)

For Britain, the General Household Surveys of 1973-1983 can be used. These offer a sample of approximately 126,000 employed individuals. The question asked is:

"How satisfied are you with your job as a whole -- very satisfied, fairly satisfied, neither satisfied nor dissatisfied, rather dissatisfied, or very dissatisfied?" (GHS Ques.)

The wordings thus differ slightly between countries, but seem sufficiently similar to allow rough comparison. In both countries the samples for the paper's analysis are restricted to current employees. Although an interesting special case, the self-employed are omitted. There is a small literature suggesting that they have intrinsically greater job satisfaction than employees.

Tables 7 and 8 give the raw numbers on job satisfaction for each country. Table 7 reports the statistics for the overall US sample. The raw numbers reveal fairly large fluctuations -- the number jumped to almost 56% in 1975 and was as

low as 43% in 1987 -- so it is especially difficult to find a time trend in the statistics.

British data are given in Table 8. The proportion stating "very satisfied" with their job is on average 43% over the period, which is similar to the numbers for the USA. In 1973, the proportion of British adults calling themselves very satisfied at work was 42.7%. In 1983, at the end of the period for which GHS data are available, the number was 39.0%. There is thus if anything some sign of a slight fall in the level of job satisfaction in Britain.

This finding of fairly flat job satisfaction levels through time mirrors Weaver (1980) on earlier US data. One interpretation, supported by the evidence in Clark and Oswald (1996), is that satisfaction is somehow inherently relativistic, and based on comparisons with others.

*Finding 7 In Britain and America the level of job satisfaction is not rising over time.*

## V. Conclusions

Every day, in every industrialized country of the world, journalists and politicians give out a conscious and unconscious message. It is that better economic performance means more happiness for a nation. This idea is rarely questioned. We feel we would be more cheery if our boss raised our pay, and assume that countries must be roughly the same.

The results in this paper suggest that, in a developed nation, economic progress buys only a small amount of extra happiness. Four main pieces of evidence have been offered for this claim.

1. Reported happiness in the US has gone up only fractionally over the post-war period.

2. Reported levels of "satisfaction with life" in Europe are only slightly higher than they were twenty years ago. Some countries show drops.
3. Although the rate of suicide in Britain has fallen by approximately one third over the last hundred years, the number for men has risen, in almost all Western nations, from the 1970s to the present. Rich countries seem to have high suicide rates.
4. Job satisfaction has not increased, over those parts of the last quarter of a century for which data are available, in the US and the UK.

These gains in national well-being appear to be so slight that a case could be made, as by Richard Easterlin (1974), that economic growth is worthless. This paper argues that Easterlin is wrong -- but only just.

Because the task of measuring well-being is a difficult and relatively unconventional one, the paper's results cannot be accepted uncritically. First, it might be argued that interview responses to happiness and satisfaction questions do not mean anything reliable. Second, it might be argued that the use of suicide data as an indicator of a society's happiness is too strange to be taken seriously, or that such data are unhelpful because they are a reflection of mental illness and not of any objectively low quality of life. There is no wholly convincing way to dispose of such objections. As in any area of social science, it is prudent to view the paper's punchlines cautiously. Nevertheless, a simple reply to critics is that these kinds of statistics are probably the only ones available to us if we wish to measure well-being, and that, at the very least, they raise doubts about routine beliefs. Moreover, counter-arguments to the methodological criticisms have been produced many times. It is known in the psychological and medical literatures that objective economic events are correlated with happiness scores and with suicide (and para-suicide).

Another possible line of attack on the paper's conclusions is to appeal to common-sense observation. How can it be, one might ask, that money buys little well-being and yet we see individuals around us constantly striving to make more of it? The answer may be that what matters to someone who lives in a rich country is his or her relative income. A spectator who leaps up at a football match gets at first a much better view of the game; by the time his neighbours are up it is no better than before. If there is something to this, it would explain why intuition is capable of misleading us about the national benefits of economic performance. Such intuition has been built up by observing how each of us feels as our income rises. Yet, implicitly, that holds others' incomes constant. Hence common-sense may not be a good guide to what happens when a whole society gets richer.

The conclusions of the paper do not mean that economic forces have little impact on people's lives. A consistent theme through the paper's different forms of evidence has been the vulnerability of human beings to joblessness. Unemployment appears to be the primary economic source of unhappiness. If so, economic growth should not be a government's primary concern.

## Background Notes

The main sources of information used in the paper are the Eurobarometer Surveys of 1973 onwards, the British General Household Surveys of 1973 onwards, the first 1991 sweep of the British Household Panel Study, and the US General Social Surveys of 1972 onwards. These are face-to-face surveys of randomly sampled individuals. Suicide data come from the Office of Population Censuses and Surveys. All the paper's sources of data are publicly available. This paper has not attempted to document its literature sources in the way a normal academic paper would. The paper's general conclusions in some cases agree or overlap with those in Andrews (1991), Smith (1979), Shin (1980), Thomas and Hughes (1986), Veenhoven (1991, 1993) and Weaver (1980). Although little-read by economists, the pioneering work on the statistical study of well-being includes Andrews and Withey (1976), Andrews and Inglehart (1978), Campbell, Converse and Rodgers (1976), Campbell (1981), Cantril (1965), Diener (1984), and Larsen, Diener and Emmons (1984). A good introduction is Argyle (1989). Economists interested in dipping into a huge recent literature might also look at Andrews (1991), Warr (1987 and 1990 a,b) and Ng (1996). Blanchflower and Oswald (1996) conclude that the young are getting systematically happier. Birdi et al (1995), Clark et al (1996) and Warr (1992) argue that job satisfaction is U-shaped in age, and give other results. Blanchflower and Oswald (1997) find the self-employed are happier.

Hirsch (1976) is a well-known critique of the value of increased real national income. Scitovsky (1976) makes similar arguments. My attention has been drawn to an early happiness study in this journal, Morawetz et al (1977). Many of the British results on the distress caused by unemployment are due to Jahoda (1982), Peter Warr (1978 onwards) and Jackson et al (1983). New work includes Whelan (1992) and Gallie and Russell (1995). The unemployment findings are now conventional in the psychology literature but probably still not well-known among economists. Innovative early work by economists includes Bjorklund (1985) and Edin (1988), who fail to find marked effects for Sweden. More recent research has uncovered large negative effects of joblessness upon wellbeing. The findings of Gerlach and Stephan (1996), Korpi (1997) and Winkelmann and Winkelmann (1997) seem particularly important. They control for person-specific fixed effects. The coefficient on unemployment in a panel well-being equation turns out to be fairly similar to that in a pure cross-section equation.

There are potential links between the happiness literature and the literatures on the quality of life and the Human Development Index, but they have yet to be forged. Nussbaum and Sen (1993) contains a set of essays on the border between philosophy and economics. Smith (1993) is a critical inquiry into HDI. Crafts (1997) is a recent application of HDI methods.

If well-being depends upon relative income, most of economists' optimal tax theory is incomplete or worse. The standard literature assumes that in setting taxes a government should pay no attention to people's feelings of how they compare with others: little or no role is assigned to personal notions of justice or relative deprivation. Some of the few attempts to change this are Boskin and Sheshinski (1978), Layard (1980) and Oswald (1983).

International comparisons using the multi-national International Social Survey Programme are given in Birdi et al (1995), Blanchflower and Freeman (1997) and Curtice (1993). This paper focuses on well-being in developed countries. It seems likely that real income growth does buy a lot of happiness in a developing nation. Veenhoven (1991) presents evidence consistent with that.

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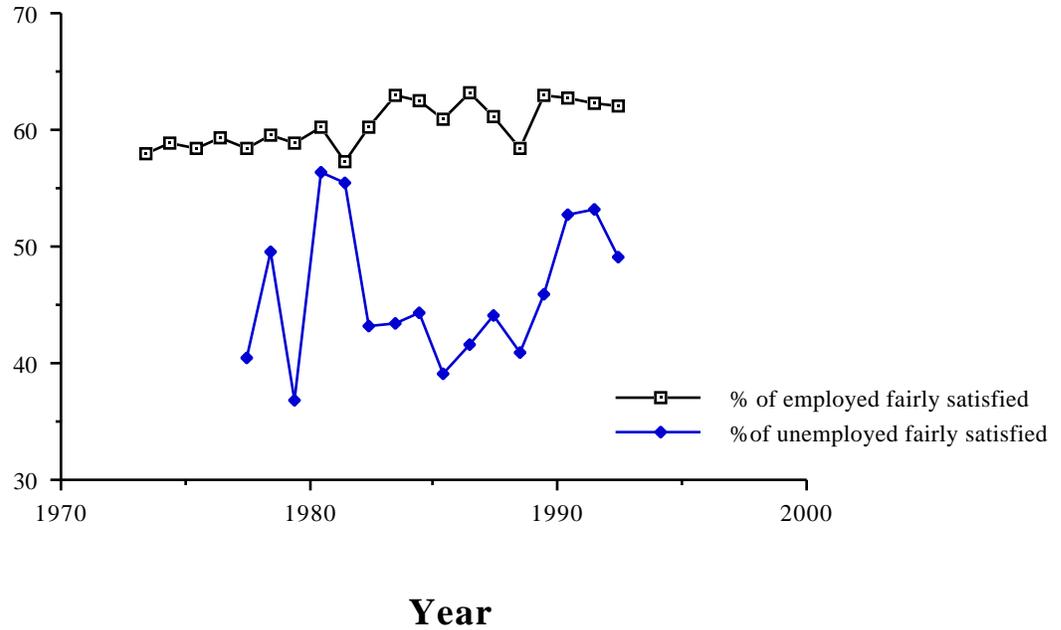
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**Figure 1**  
**Life-Satisfaction Levels of the Employed and the Unemployed: The European Countries 1970s-1990s**

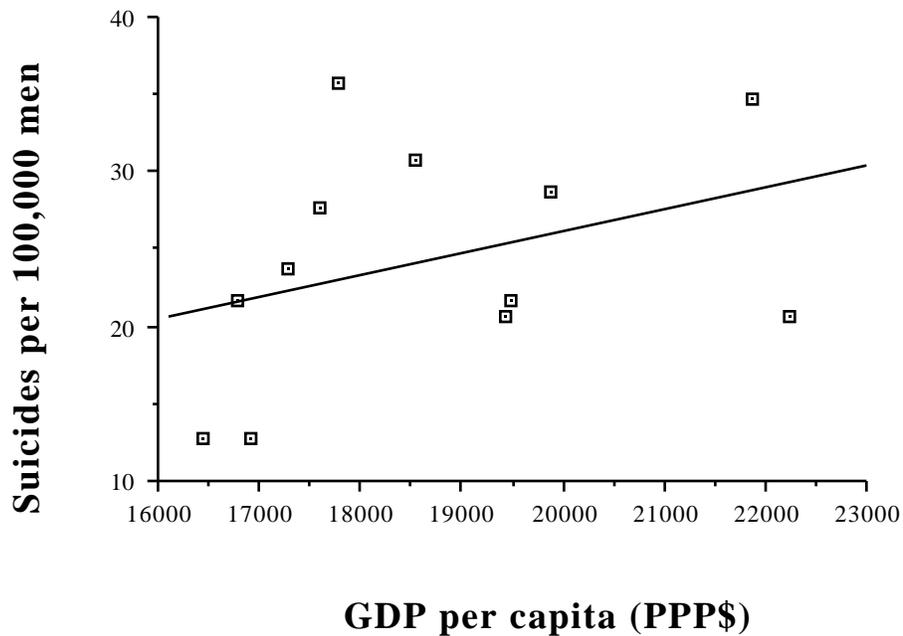


Notes

The vertical axis measures the proportion of people saying they were "fairly satisfied with life" as a whole. The data source is the Eurobarometer Surveys, which provides a random sample here of approximately 120,000 European men.

Running a trend line through each series produces almost exactly the same gradient, namely, just over 0.2.

**Figure 2**  
**Suicides and GDP in the Rich Industrial Nations**



Notes

This figure depicts the suicide rates and purchasing power parity GDP per capita figures of the dozen nations with the highest HDI (human development index) scores as calculated by the UN. The twelve countries are Canada, Switzerland, Japan, Sweden, Norway, France, Australia, USA, Netherlands, UK, Germany, and Austria. The data are for the early 1990s.

Source of the data: Tables 28 and 30 of Human Development Report, United Nations, Oxford University Press, 1994

**Table 1 Happiness in the USA:1972-1990**

	1972	1980	1990
Very happy %	30.3	33.9	33.4
Pretty happy %	53.2	52.7	57.6
Not too happy %	16.5	13.3	9.0
Number in sample	1606	1462	1361

Source: Blanchflower, Oswald and Warr (1993) from US General Social Surveys. That paper gives data for each year.

Weighted to control for oversampling of blacks in certain years.

**Table 2**

**Life Satisfaction in Nine European Countries  
from One Decade to the Next**

Country	Average % 1973-81	Average % 1982-90	Well-being increased?	
<i>Proportion of the sample who reported themselves as "very satisfied" with their lives</i>				
Belgium	39.5%	24.7%	No	Yes
Denmark	51.7	62.8	Yes	Yes
France	12.4	13.7	Yes	Yes
W Germany	18.8	23.4	Yes	Yes
Ireland	38.8	31.1	No	No
Italy	9.0	13.2	Yes	Yes
Luxembourg	34.6	39.1	Yes	Yes
Netherlands	41.3	41.8	Yes	Yes
UK	31.7	30.9	No	No

Source: Own calculations using Eurobarometer Survey numbers provided by Ronald Inglehart of the University of Michigan. Sample size is approximately 1000 people per year per country.

**Table 3**  
**Measuring the Distress Levels of People in the Labour  
 Force in Britain in 1991**

<u>Labour market status</u>	<u>Number in sample</u>	<u>Average mental distress*</u>
Unemployed	522	2.98
Employee	4893	1.45
Self-employed	736	1.54

\* These numbers are on a scale where the minimum is 0 and the maximum is 12. Calculating means in this way imposes an implicit assumption of cardinality.

**Table 4**  
**Distress Levels in Britain by Educational Attainment**

	<u>Number in sample</u>	<u>Mental distress</u>
High education (HNC up to degree)		
In work	1612	1.48
Unemployed	86	3.44
Medium education (GCSE up to A level)		
In work	2157	1.43
Unemployed	161	3.15
Low education (less or no qualifications)		
In work	1848	1.43
Unemployed	273	2.70

Source for both Tables: Clark and Oswald (1994) using BHPS data on GHQ scores

**Table 5****The Microeconomics of Happiness in Europe: 1975-86**

	All	Unemployed
Very happy%	23.4	15.9
Pretty happy %	57.9	51.1
Not too happy %	18.6	33.0

	Lowest-income quartile people	Highest-income quartile people
Very happy%	18.8	28.4
Pretty happy %	54.5	58.5
Not too happy %	26.7	13.11

Source: Di Tella, MacCulloch and Oswald (1996) using Eurobarometer data. Total sample 108,802 observations.

**Table 6. Parasuicide rates by duration of unemployment: Edinburgh city males, 1982**

<i>Duration of unemployment</i>	<i>Parasuicide rate/100 000</i>	<i>Relative Risk</i>
Less than 4 weeks	1012	8.8
5-26 weeks	615	5.4
27-52 weeks	1193	10.4
Over 52 Weeks	2164	18.9
All unemployed	1345	11.8
All employed	114	1.0

Source: Platt and Kreitman (1985)

**Table 7 Job Satisfaction in the USA: 1972-1990**

	<i>1972</i>	<i>1980</i>	<i>1990</i>
Very satisfied %	46.2	44.4	46.0
Moderately satisfied %	38.0	37.7	40.1
A little dissatisfied %	12.2	13.8	9.9
Very dissatisfied %	3.6	4.2	4.0
Number in sample	771	698	734

Source: Blanchflower, Oswald and Warr (1993) from US General Social Surveys. That paper gives data for each year.

Weighted to control for oversampling of blacks in certain years.

**Table 8 Job Satisfaction in the UK: 1973-1983**

	<i>1973</i>	<i>1978</i>	<i>1983</i>
Very satisfied %	42.7	44.5	39.3
Fairly satisfied %	42.8	39.4	43.5
Neither sat. nor dissat.	7.7	4.6	5.3
A little dissatisfied %	4.4	7.9	8.0
Very dissatisfied %	2.4	3.5	4.3
Number in sample	13845	11814	8417

Source: Blanchflower, Oswald and Warr (1993) from the General Household Surveys.