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**Article**

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# Happiness Economics

David G. Blanchflower\*

Despite Thomas Carlyle's claim, when he was arguing that slavery was morally superior to the market, economics is no longer the *dismal science*.<sup>1</sup> A growing body of literature in the economics of happiness and mental well-being has emerged. It is now fashionable to try to understand the pursuit of happiness, and, after a long delay, the ideas promoted originally by Richard Easterlin are attracting worldwide attention.<sup>2</sup> There is even a World Database of Happiness.

Anyway, I came to the topics of happiness and well-being as a labor economist who had mostly worked on wages, and who early on was struck by the stability of the Mincerian earnings function across time and space. The basic structure of a log earnings equation, no matter what dataset was used and what country it is estimated for, has a similar structure. It turns out that there are patterns in the well-being data. I am struck by the fact that there is a great deal of stability in happiness and life-satisfaction equations, no matter what country we look at, what dataset or time period, whether the question relates to life satisfaction or happiness, and how the responses are coded whether in three, four, five or even as many as ten categories.

In general, economists have focused on modeling three fairly simple questions on life satisfaction and happiness, and that is what I have done mostly in my

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research, primarily with Andrew Oswald at the University of Warwick, but also with David Bell at the University of Stirling; Chris Shadforth at the Bank of England, and Richard Freeman from Harvard.

Typical questions are: 1) Happiness — for example from the General Social Survey, *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?* 2) Life satisfaction — for example from the European Eurobarometer Surveys, *On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the life you lead?* 3) Psychological health and mental strain — for example from the British Household Panel Survey, *Such as the GHQ score, which amalgamates answers to questions about how well people have been sleeping, their level of confidence, feelings of depression, among others.*<sup>3</sup>

The micro data on happiness are easily obtainable from most data archives including ICPSR for the GSS and the Eurobarometers, the Data Archive at the University of Essex and ZACAT in Germany for the Eurobarometers, ISSP, European Social Survey, BHPS, GSOEP, European Quality of Life Survey, European Social Surveys and so on. Life satisfaction data are also now available annually from the Latinobarometers, while happiness data are also available annually in the Asianbarometers. Several of the data series extend back at least to the early 1970s. Some are panels (BHPS, GSOEP).

Economists have had longstanding reservations about the reliability of

interpersonal comparisons of well-being. Psychologists, however, view it as natural that a concept such as happiness should be studied in part by asking people how they feel. One definition of happiness is the degree to which an individual judges the overall quality of his or her life as favorable. As a validation of the answers to recorded happiness levels, it turns out that answers to happiness and life satisfaction questions are correlated with: 1) objective characteristics such as unemployment; 2) assessments of the person's happiness by friends and family members; 3) assessments of the person's happiness by his or her spouse; 4) heart rate and blood-pressure measures of response to stress; 5) the risk of coronary heart disease; 6) duration of authentic or so-called Duchenne smiles (a Duchenne smile occurs when both the zygomatic major and orbicularis oris facial muscles fire, and human beings identify these as "genuine" smiles); 7) skin-resistance measures of response to stress; 8) electroencephalogram measures of prefrontal brain activity.

It is apparent that most people are happy (or, more precisely, mark themselves fairly high up on a scale). This finding has subsequently been replicated in many datasets over many time periods and for numerous countries. For example, in the United States in 2006 only 13 percent of people in the GSS said they were not very happy, 56 percent were pretty happy, and 31 percent very happy. In Eurobarometer 67.2 for April-May 2007 (ICPSR#21160) for the European Union (EU) 15 in 2007, for example, 3 percent said they were not

at all satisfied, while 12 percent were not very satisfied, 60 percent fairly satisfied, and 24 percent very satisfied. In the 2005 *Latinobarometers*, which also asked the same 4-step life satisfaction question in eighteen Latin American countries, 4.6 percent said they were not at all satisfied, 25.4 percent were not very satisfied, 39.7 percent were fairly satisfied, and 30.3 percent very satisfied.

There are a number of common patterns in the determinants of happiness, which have been replicated in a number of other papers. Happiness and life satisfaction tends to be higher among a) women, b) people with lots of friends, c) the young and the old, d) married and cohabiting people, e) the highly educated, f) the healthy, g) those with high income, h) the self-employed, i) people with low blood pressure, j) those who have sex at least once a week with the same partner, k) right-wing voters, l) the religious, m) members of non-church organizations, n) volunteers, o) those who take exercise, and p) those who live in western countries.<sup>4</sup> The self-employed especially value their independence.<sup>5</sup> It turns out that the main findings from responses on both happiness and life satisfaction are also broadly replicated in data on unhappiness, hypertension, stress, depression, anxiety, and pain from a considerable number of cross-country data sources.<sup>6</sup> Happy people are less likely to commit suicide.<sup>7</sup>

There is also evidence of adaptation. Good and bad life events wear off, at least partially, as people get used to them. Oswald and Powdthavee provide longitudinal evidence that people who become disabled go on to exhibit considerable recovery in mental well-being.<sup>8</sup> In fixed-effects equations they estimate the degree of hedonic adaptation at — depending on the severity of the disability — approximately 30 percent to 50 percent.

I recently compared the results using data on life satisfaction and happiness with those from evaluated time use<sup>9</sup> and in particular the U-index (for “unpleasant” or “undesirable”) as propounded by Krueger et al for use in *National Time Accounting*.<sup>10</sup> The U-index is designed to measure the proportion of time an individual spends in

an *unpleasant* state. Encouragingly, there are many similarities in the findings. For example, both the U-index and conventional measures show higher levels of well-being among wealthier, higher educated and older individuals. One attraction of the evaluated time use data, though, is that it can be used to understand why some groups are happier than others.

In the United States happiness has trended downward over time, but the picture is rather more mixed in Europe: using the Eurobarometer life satisfaction questions, when an ordered logit is estimated with controls for education, age, gender, schooling, marital status, and labor market status, nine countries have positive time trends (Denmark; Finland; France; Italy; Luxembourg; Netherlands; Spain; Sweden; and the United Kingdom.) Austria and Ireland have no significant time trend while Belgium, Germany, Greece, and Portugal have significant *downward* trends. There is evidence from developing countries of a steeper upward trend in happiness. This is especially apparent in Latin America and among the eight Eastern European countries that joined the European Union in 2004.<sup>11</sup>

There is evidence though of a downward trend in happiness for women and an upward trend for men in the United States<sup>12</sup>. Betsey Stevenson and Justin Wolfers confirmed this finding for the United States and also found that women’s declining relative well-being is found in multiple countries, datasets, and measures of subjective well-being, and is pervasive across demographic groups.<sup>13</sup> Relative declines in female happiness have eroded a gender gap in happiness in which women in the 1970s typically reported higher subjective well-being than did men. These declines have continued and a new gender gap may be emerging, one with higher subjective well-being for men.

A small literature, begun by Rafael Di Tella and his co-authors, has found that both unemployment and inflation lower happiness.<sup>14</sup> This is true even after controlling for country fixed effects and year effects. My paper extends the literature by looking at more countries over a longer time period. It also considers the impacts

on happiness of GDP per capita and interest rates.<sup>15</sup> I find, conventionally, that both higher unemployment and higher inflation lower happiness. Interest rates are also found to enter happiness equations negatively. Changes in GDP per capita have little impact on more economically developed countries, but do have a positive impact in the poorest countries — consistent with the Easterlin hypothesis. I find that unemployment depresses well-being more than inflation. The least educated and the old are more concerned about unemployment than inflation. Conversely, the young and the most educated are more concerned about inflation. An individual’s experience of high inflation over their adult lifetime lowers their current happiness over and above the effects from current inflation and current unemployment. Unemployment appears to be more costly than inflation in terms of its impact on wellbeing.

Oswald and I found that the well-being of the young had risen both in the United States and Europe.<sup>16</sup> Explaining why was difficult. This is still the case: in the GSS the time trend is positive for those aged under 30 and flat for those aged 30 and higher. In Europe using pooled Eurobarometers there is a significant upward time trend for both but much stronger for the young. We ruled out that it was explained by a decline in the chance of war with the Eastern bloc, falling discrimination, changing education and work, or the rise in youth-oriented consumer goods. The paper demonstrated that most of the increase is to be found in the group who were unmarried.

In a 2004 paper, Oswald and I estimated the dollar values of events like unemployment and divorce.<sup>17</sup> They are large. For the typical individual, a doubling of salary makes a lot less difference than life events like marriage or unemployment. A lasting marriage (compared to widowhood as a “natural” experiment), for example, is estimated to be worth \$100,000 a year. Further calculation suggests that to “compensate” men exactly for unemployment would take a rise in income of \$60,000 per annum, and to “compensate” for being black would take \$30,000 extra per annum. Oswald and Powdthavee find

that using GHQ mental distress as the measure of well-being, the hedonic compensation annual amount *in the first year* for the death of a child might be of the order of £100,000 (\$200,000).<sup>18</sup> These are all large sums, and in a sense reflect the low (happiness) value of extra income. Money, it seems, does not buy more sexual partners or more sex.<sup>19</sup>

The data show that richer people are happier and healthier, but can we be sure about causality? As in other areas of economics, this is both of central importance and difficult to establish beyond all doubt. One attempt, by Jonathan Gardner and Oswald, found that Britons who receive lottery wins of between £1,000 and £120,000 go on, compared to those who receive tiny wins, to exhibit better psychological health.<sup>20</sup> But Oswald and I found that individuals in the United States were found to be less happy if their incomes are far above those of the poorest people. However, people do appear to compare themselves more with well-off families, so that perhaps they get happier the closer their income comes to that of rich people around them. Relative income certainly appears to matter. Erzo Luttmer finds, for the United States, that higher earnings of neighbors are associated with lower levels of self-reported happiness, controlling for an individual's own income.<sup>21</sup> Alberto Alesina and his co-authors find, using a sample of individuals across the United States (1981–96) and Europe (1975–92) that individuals have a lower tendency to report themselves as happy when inequality is high, even controlling for individual income. The effect is stronger in Europe than in the United States.<sup>22</sup>

Life satisfaction scores predict reasonably well the scale of the flow of workers coming to the United Kingdom from the eight Accession countries of the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia. These countries joined the European Union in 2004 and only the United Kingdom and Ireland gave them the right to work. In these countries the levels of happiness are low.<sup>23</sup> The propensity to migrate is more highly correlated with life satisfaction scores than it is with GDP

per capita, the unemployment rate, or the employment rate.<sup>24</sup>

Consistent with other research, Oswald and I recently documented, using evidence on over two million people, that psychological well-being is U-shaped through life.<sup>25</sup> A difficulty with research on this issue is that there are likely to be omitted cohort effects (earlier generations may have been born in, say, particularly good or bad times). First, using data on 500,000 randomly sampled Americans and West Europeans, the paper designs a test that can control for cohort effects. Holding other factors constant, we show that a typical individual's happiness reaches its minimum on both sides of the Atlantic and for both males and females in middle age. Second, evidence is provided for the existence of a similar U-shape through the life-course in East European, Latin American, and Asian nations. Third, a U-shape in age is found in separate well-being regression equations in 72 developed and developing nations. Fourth, using measures that are closer to psychiatric scores, we document a comparable well-being curve across the life cycle in two other datasets: 1) in GHQ-N6 mental health levels among a sample of 16,000 Europeans, and 2) in reported depression-and-anxiety levels among one million UK citizens. Fifth, we discuss some apparent exceptions, particularly in developing nations, to the U-shape. Sixth, we note that American male birth-cohorts seem to have become progressively less content with their lives. More, truly longitudinal research on this topic would be valuable.

In surveys of well-being, countries such as Denmark and the Netherlands emerge as particularly happy while nations like Germany and Italy report lower levels of happiness. But are these kinds of findings credible? Oswald and I provide some evidence suggesting that the answer is yes.<sup>26</sup> Using data on 16 countries, we show that happier nations report systematically lower levels of hypertension. As well as potentially validating the differences in measured happiness across nations, this suggests that blood-pressure readings might be valuable as part of a national well-being index.

In a pair of articles Oswald and I studied well-being in Australia along with a published response by Andrew Leigh and Justin Wolfers.<sup>27</sup> According to the HDI, Australia now ranks third in the world. That places the country above all the other English-speaking nations. This article raises questions about that assessment. It reviews the new work on happiness economics, considers implications for policymakers, and examines where Australia lies in international subjective well-being rankings. Using new ISSP data on approximately 50,000 randomly sampled individuals from 35 nations, the article shows that Australia lies close to the bottom of an international ranking of job satisfaction levels. Among a sub-sample of English-speaking nations, where a common language should help subjective well-being measures to be reliable, Australia performs fairly poorly on a range of happiness indicators. Moreover, Australia has the highest overall suicide rate. This appears to be a paradox.

The literature on the economics of well-being is currently growing at a remarkable rate. If one takes the view that human happiness is ultimately the most important topic in social science, perhaps — after decades where economists lagged behind other social scientists — this should not be surprising. However, we still have a great deal to learn. Is the Easterlin Paradox — that happiness at a national level does not increase with wealth once basic needs are fulfilled — correct or only an approximation to the truth? Are relative-wage effect comparisons always harmful to people? How should we think about the connections between mental health and what economists have traditionally called utility? What are the deep links between money and happiness? The next decade is likely to see a great deal of work on these important topics.

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<sup>1</sup> “...I should say, like some we have heard of, no, a dreary, desolate, and indeed, quite abject and distressing one, what we might call, by way of eminence, the dismal science” Thomas Carlyle, 1849.

<sup>2</sup> R.A. Easterlin, “Does Economic Growth Improve The Human Lot?”

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<sup>3</sup> For economists who want a readable way into the literature, introductions to it can be found in sources such as A. J. Oswald, “Happiness And Economic Performance”, *Economic Journal*, 107 November 1997, pp. 1815–31; B. S. Frey and A. Stutzer, *Happiness and Economics*, Princeton and Oxford: Princeton University Press, (2002); and A. E. Clark, P. Frieters, and M. A. Shields, “Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox And Other Puzzles”, *Journal of Economic Literature*, 46(1), (2008), pp. 95–144.

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<sup>8</sup> A. J. Oswald and N. Powdthavee, “Does Happiness Adapt? A Longitudinal Study Of Disability with Implications for Economists and Judges”, *Journal of Public Economics*, 92, (2008), pp. 1061–77.

<sup>9</sup> D. G. Blanchflower, “International Evidence on Well-Being.”

<sup>10</sup> A. B. Krueger, D. Kahneman, D. Schkade, N. Schwarz, and A. A. Stone, “National Time Accounting: The Currency of Life”, in *National Time Accounting and Subjective Well-Being*, A. B. Krueger, ed. University of Chicago Press, forthcoming.

<sup>11</sup> D. G. Blanchflower and C. Shadforth, “Fear, Unemployment, and Migration”, NBER Working Paper No. 13506, September 2007; and D. G. Blanchflower, “International Evidence on Well-Being.”

<sup>12</sup> D. G. Blanchflower and A. J. Oswald “Well-Being Over Time in Britain and the United States.”

<sup>13</sup> B. Stevenson and J. Wolfers, “The Paradox Of Declining Female Happiness”, mimeo, University of Pennsylvania, 2007.

<sup>14</sup> R. Di Tella, R. J. MacCulloch, and A. J. Oswald, “Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness”, *American Economic Review*, 91, 2001, pp. 33–41. See also J. Wolfers, “Is Business Cycle Volatility Costly? Evidence from Surveys of Subjective Wellbeing”, *International Finance*, 6:1, 2003, pp. 1–26.

<sup>15</sup> D. G. Blanchflower, “Is Unemployment More Costly Than Inflation?” NBER Working Paper No. 13505, September 2007.

<sup>16</sup> D. G. Blanchflower and A. J. Oswald, “The Rising Well-Being Of The Young”, in *Youth Employment and Joblessness in Advanced Countries*, D. G. Blanchflower and R. B. Freeman, eds., University of Chicago Press, 2000.

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<sup>18</sup> A. J. Oswald and N. Powdthavee, “Death, Happiness, and the Calculation of Compensatory Damages”, *Journal of Legal Studies*, forthcoming.

<sup>19</sup> D. G. Blanchflower and A. J. Oswald, “Money, Sex and Happiness”, *Scandinavian Journal of Economics*, 106(3), 2004, pp. 393–415.

<sup>20</sup> J. Gardner and A. J. Oswald, “Money And Mental Well-Being: A Longitudinal Study of Medium Sized Lottery Wins”, *Journal of Health Economics*, 26, 2007, pp. 49–60.

<sup>21</sup> E. Luttmer, “Neighbors As Negatives; Relative Earnings and Well-Being”, *Quarterly Journal of Economics*, August 2005, 120(3), pp. 963–1002.

<sup>22</sup> A. Alesina, R. Di Tella, and R. J. MacCulloch, “Inequality and Happiness: Are Europeans and Americans Different?” *Journal of Public Economics*, 88, 2004, pp. 2009–42.

<sup>23</sup> D. G. Blanchflower, “Unemployment, Well-Being and Wage Curves in Eastern and Central Europe”, *Journal of Japanese and International Economics*, 15(4), December 2001, pp. 364–402.

<sup>24</sup> D. G. Blanchflower and C. Shadforth “Entrepreneurship in the UK”.

<sup>25</sup> D. G. Blanchflower and A. J. Oswald, “Is Well-Being U-Shaped over the Life Cycle?” *Social Science and Medicine*, 66(8), pp. 1733–1749, April 2008.

<sup>26</sup> D. G. Blanchflower and A. J. Oswald, “Happiness and Hypertension Across Nations”, *Journal of Health Economics*, 27(2), March 2008, pp. 218–33.

<sup>27</sup> D. G. Blanchflower and A. J. Oswald, “Happiness and the Human Development Index: the Paradox of Australia”, *The Australian Economic Review*, 38(3), September 2005, pp. 307–18; D. G. Blanchflower and A. J. Oswald, “On Leigh-Wolfers and Well-Being in Australia”, *The Australian Economic Review*, 39(2), June 2006, pp. 185–6; and A. Leigh and J. Wolfers, “Happiness and the Human Development Index: Australia is not a Paradox”, *Australian Economic Review*, 39(2), June 2006, pp. 176–84.