

Happiness and the Human Development Index: Australia Is Not a Paradox

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Abstract

In 'Happiness and the Human Development Index: The Paradox of Australia', Blanchflower and Oswald (2005) observe an apparent puzzle: they claim that Australia ranks highly in the Human Development Index (HDI), but relatively poorly in happiness. However, when we compare their happiness data with the HDI, Australia appears happier, not sadder, than its HDI score would predict. This conclusion also holds when we turn to a larger cross-national dataset than the one used by Blanchflower and Oswald, when we analyse life satisfaction in place of happiness, and when we measure development using Gross Domestic Product per capita in place of the HDI. Indeed, in the World Values Survey, only one other country (Iceland) has a significantly higher level of both life satisfaction and happiness than Australia. Our findings accord with numerous cross-national surveys conducted since the 1940s, which have consistently found that Australians report high levels of well-being.

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1. Introduction

Blanchflower and Oswald (2005) have recently argued that Australia presents a paradox. According to their article, 'Happiness and the Human Development Index: The Paradox of Australia', our homeland ranks very highly in the United Nations' Human Development Index (HDI), but its citizens are just not that happy.

To many Australian residents or visitors, such a finding may not accord with casual empiricism. After all, Australia's international reputation is not that of an especially dour nation. And the data agree. When one actually compares Blanchflower and Oswald's happiness numbers with the HDI, Australia is right on the regression line. Indeed, Australians are slightly happier than one might expect based on their nation's economic performance.

We also turn to alternative datasets to try to find evidence in favour of Blanchflower and Oswald's paradox, analysing data on both happiness and life satisfaction from the World Values Survey. These data suggest a robust relationship between life satisfaction and development, but also yielded no evidence of an unhappiness paradox in the case of Australia. Indeed, if anything, Australians are happier than one might expect based on its HDI, or levels of Gross Domestic Product (GDP) per capita.

Finally, we supplement Blanchflower and Oswald's analysis of happiness in Australia by considering Australia's ranking in other surveys. In the World Values Survey, only one country has levels of both happiness and life

satisfaction that are higher than Australia by a statistically significant margin. Previous international surveys from the 1940s to the 1980s suggest a similar pattern: few countries are consistently happier than Australia.

Before proceeding, we should be clear: our analysis does not quibble with Blanchflower and Oswald's measurement of happiness and, indeed, we base our analysis in the next section of the article on their numbers. According to Blanchflower and Oswald, Australia is a paradox because it ranks third in the HDI, yet in their data ranks 12th on overall happiness, and even a bit lower on some other sub-indices, especially job satisfaction. Our analysis simply shows that this ordinal comparison is not particularly informative; Australia's level of development is about representative of that among industrialised nations, and its happiness is at the upper end of these countries. Taking account of small differences across industrialised countries in the HDI, and noise in the measurement of happiness, we find no evidence that Australia presents an unhappiness

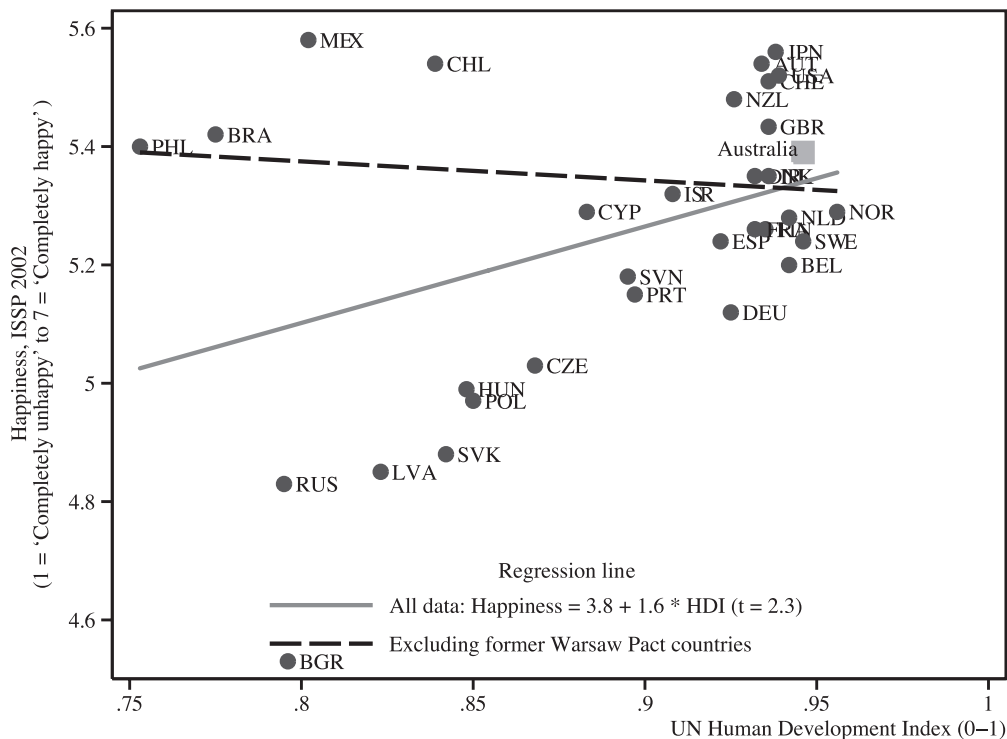
paradox. While Blanchflower and Oswald suggest that happiness data may provide a more appropriate welfare metric than the HDI or GDP, our analysis suggests that—at least for Australia—all three indicators yield fairly similar implications.

2. The Paradox: The HDI and Happiness

Blanchflower and Oswald compute the mean level of happiness within the various countries represented in the 2002 round of the International Social Survey Programme (ISSP) and claim that compared to its score on the HDI, Australia is unusually unhappy.¹ They never actually show a cross-country comparison of the happiness and development indices, and so in Figure 1 we simply take the average happiness scores from Table 1 of their article, chart them against the HDI, and run a simple bivariate regression.²

There is probably little need for formal econometrics with this figure: Australia's level of happiness looks to be entirely appropriate

Figure 1 Happiness and the HDI, ISSP 2002 Data



To better answer this question, we now turn to a dataset on well-being with a much larger sample size than the ISSP, and with separate questions on happiness and life satisfaction: the World Values Survey.

Life satisfaction = 1.9+
5.7 * HDI (t = 7.1)

Average score (1 = 'Dissatisfied' to 10 = 'Satisfied')

Human Development Index (0-1)

Life satisfaction = 1.9 + 5.7 * HDI (t = 7.1)

3. The World Values Survey

There are two international social surveys that aim to cover a large fraction of the world's population: the ISSP analysed by Blanchflower and Oswald, and the World Values Surveys, which we now analyse. While the 2002 ISSP round covered around 50000 individuals in 32 countries that encompass 21 per cent of the world's population, the European and World Values Surveys Integrated Data File (Inglehart et al. 2005) covers 115000 respondents in 78 countries that encompass 83 per cent of the world's population.⁴ The World Values Survey also includes separate questions on life satisfaction and happiness.⁵ (Since the World Values Survey does not contain questions on job satisfaction, our article does not deal with Blanchflower and Oswald's findings regarding this issue.)

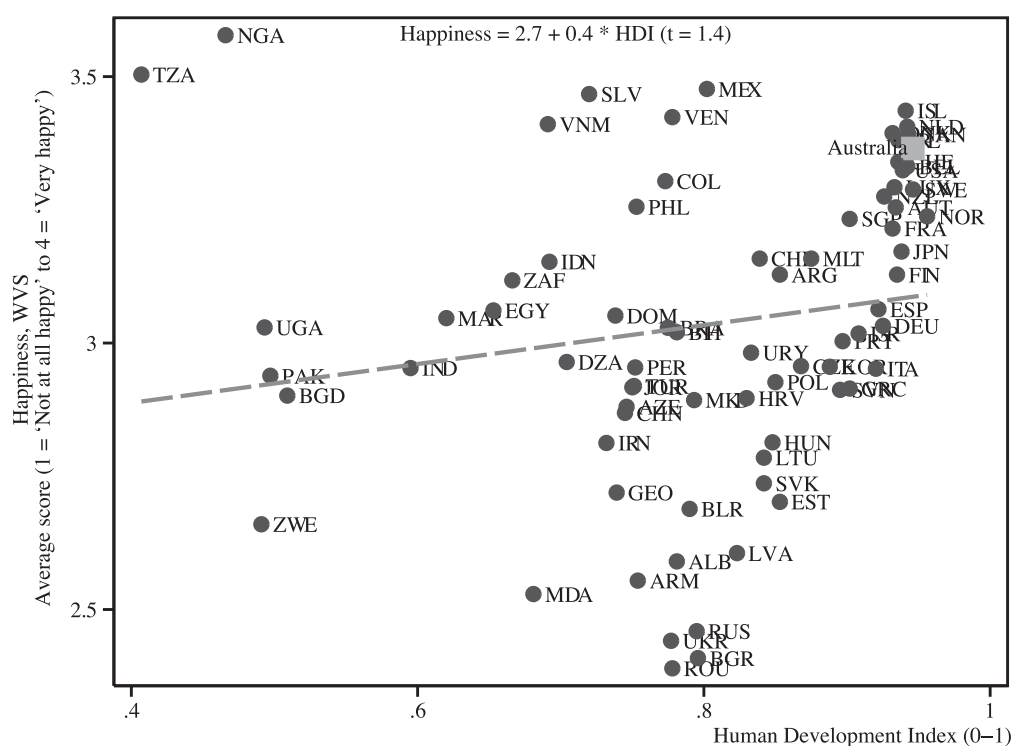
The main disadvantage of working with the World Values Survey data is that the data are comprised of two separate survey waves. Of the 78 countries, 12 (including Australia) were

surveyed in 1995–1997, while a further 66 were surveyed in 1999–2000. Where countries were surveyed in both waves, only the later survey is included in the integrated data file. We checked other surveys, and confirmed that Australian levels of happiness and life satisfaction have been stable over the past decade.⁶ Comparing Australia in 1995–1997 with other countries in 1999–2000 is therefore unlikely to bias our results.

For consistency with the previous section, we continue to compare these outcomes with the HDI as measured in 2002, although given the persistence in the HDI (and well-being indicators), this does not much affect our findings. Following Blanchflower and Oswald, we simply use each country's mean response to the well-being questions.

Figure 2 shows a very robust relationship between average responses to the life satisfaction question and the HDI. One attractive interpretation of this regression is that it is something of a cross-validation of these two measures: both the HDI and life satisfaction

Figure 3 Happiness and the HDI, World Values Survey



scores appear to be picking up related outcomes.

However, Blanchflower and Oswald analysed data on happiness rather than life satisfaction. In their analysis Blanchflower and Oswald note that 'the words "satisfaction" and "happiness" will be used largely interchangeably. Whether this creates biases is not currently known'. In order to assess this, Figure 3 repeats the same analysis as in Figures 1 and 2, but this time using happiness data on the broader array of countries represented in the World Values Survey.

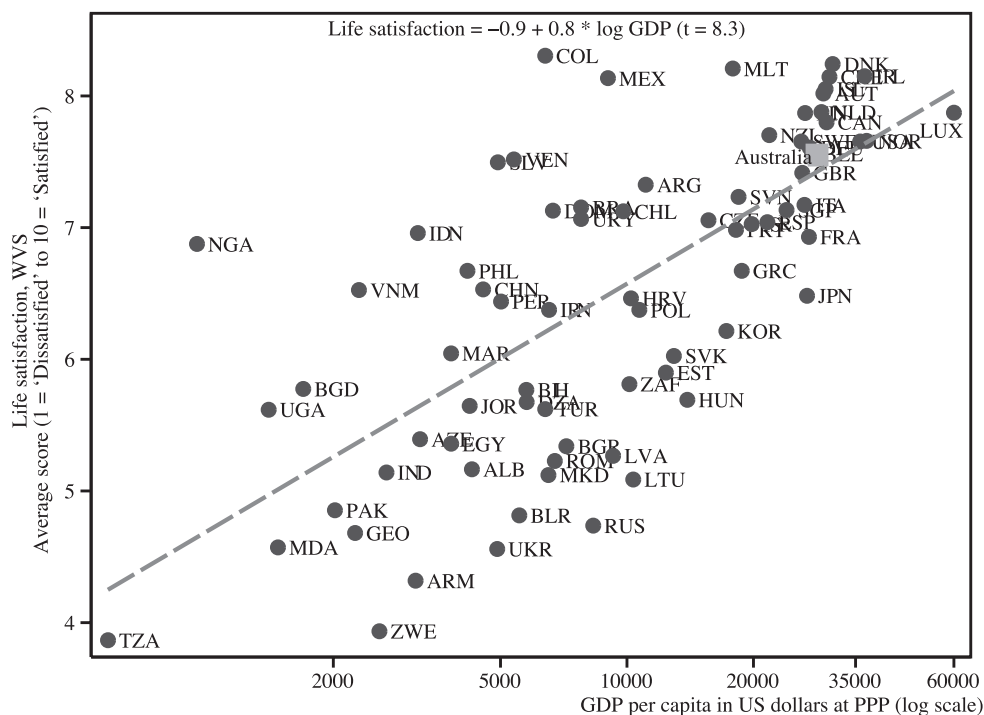
The relationship between the HDI and happiness is much more tenuous, and indeed the regression line is statistically insignificant. Dropping two clear outliers, Tanzania and Nigeria, yields a statistically significant relationship. Even so, it is quite clear that the correlation between the HDI and happiness is much lower than that between the HDI and life satisfaction. Moreover, the outliers in Figure 3 are quite interesting: Nigeria ranked as the happiest country in the World Values Survey, yet was only 37th in life satisfaction; Tanzania was

second happiest, but last on life satisfaction. These outliers and the different regressions in Figures 2 and 3 suggest that there is an important distinction between happiness and life satisfaction.

As a further check on how well Australia's happiness accords with other measures of development, Figures 4 and 5 chart log GDP per capita (at purchasing power parity) against life satisfaction and happiness. (Again, we use GDP figures for 2002, though the results are similar if earlier years' GDP figures are used instead.) The relationship is positive in both cases, though the relationship between well-being and GDP is much more robust for life satisfaction than for happiness. That both the HDI data and GDP per capita yield similar relationships with well-being is perhaps unsurprising, given that GDP makes up one-third of the HDI.

Returning to our observations on Australia, these data suggest that Australia is certainly not unhappy relative to its level of development and, if anything, its citizens are happier than might be expected, given Australia's HDI and

Figure 4 Life Satisfaction and GDP Per Capita, World Values Survey



GDP per capita. Finally, we now turn to a more fine-grained analysis of Australia's position within several cross-country well-being comparisons.

4. Australia: One of the Happiest Countries in the World?

Given that cross-national comparisons of subjective well-being are quite noisy, it seems important to assess not only whether one country is happier than another, but also whether that difference is statistically significant and to check our conclusions across various datasets. As such, we ran ordered logit regressions using the microdata from the World Values Survey, with country fixed-effects as the only controls. (While Blanchflower and Oswald also control for demographics and marriage and labour-market outcomes, it is not clear to us why one would want to control for economic and social outcomes when contrasting a nation's well-being with its level of development. As it happens, such controls did not much affect our results, although it is plausible that a richer set of

conditioning variables might have a larger impact.)

The results from these specifications are summarised in Figures 6 and 7, with Australia denoted as a black bar, countries that are not distinguishable from Australia at the 5 per cent level of significance denoted with white bars, and countries that are statistically higher or lower than Australia denoted with grey bars. For happiness, the average across all countries was 3.02. In Australia, the average score was 3.36, ranking 12th out of 77 countries. For life satisfaction, the average was 6.48, with Australia scoring 7.55, and ranking 19th out of 78 countries.

The ordered logits allow us to assess which of these differences are statistically significant. In the case of happiness, only seven countries rank ahead of Australia by a statistically significant margin: Nigeria, Tanzania, Mexico, El Salvador, Iceland, Venezuela and Vietnam. Thus in these data Iceland is the only industrialised country that is significantly happier than Australia, and no English-speaking country is significantly happier.⁷ Of the 65 countries with

Figure 5 Happiness and GDP Per Capita, World Values Survey

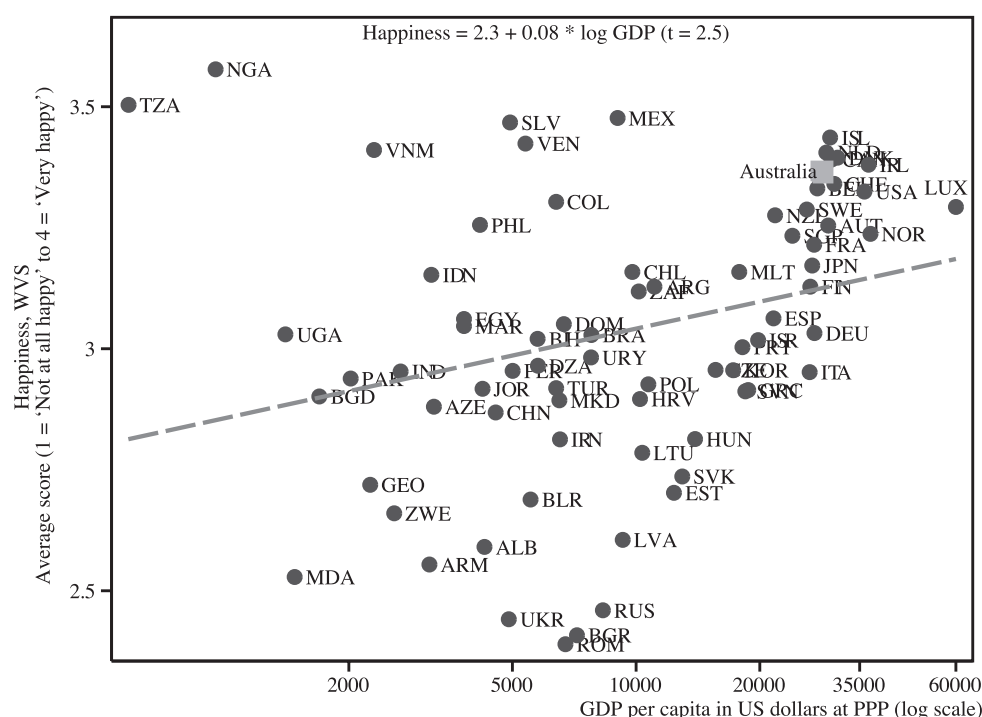
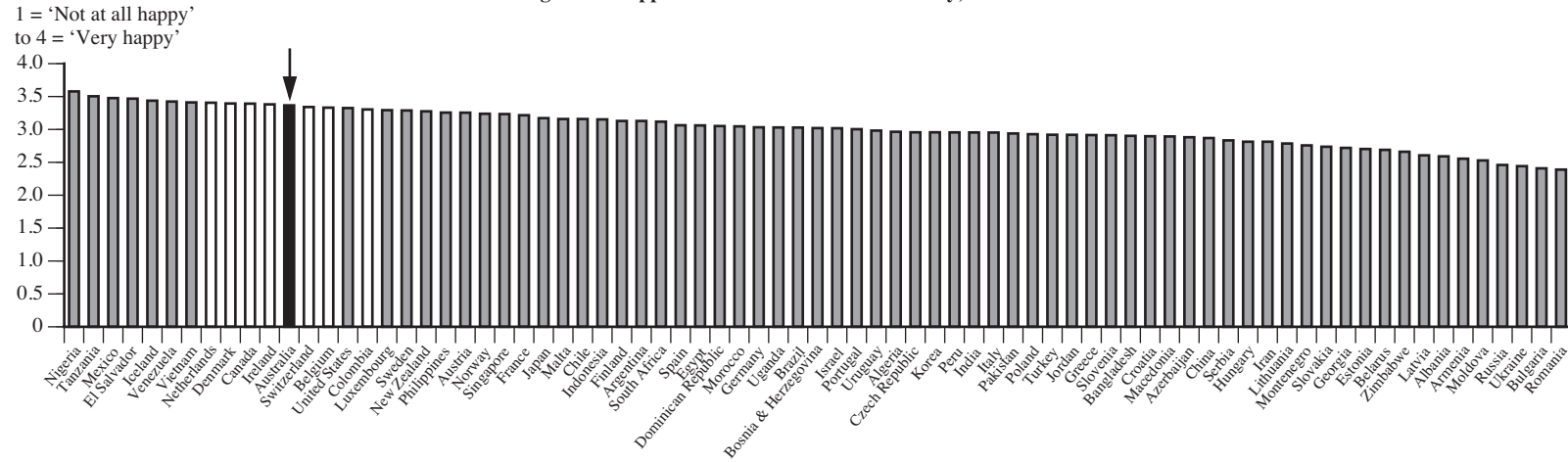
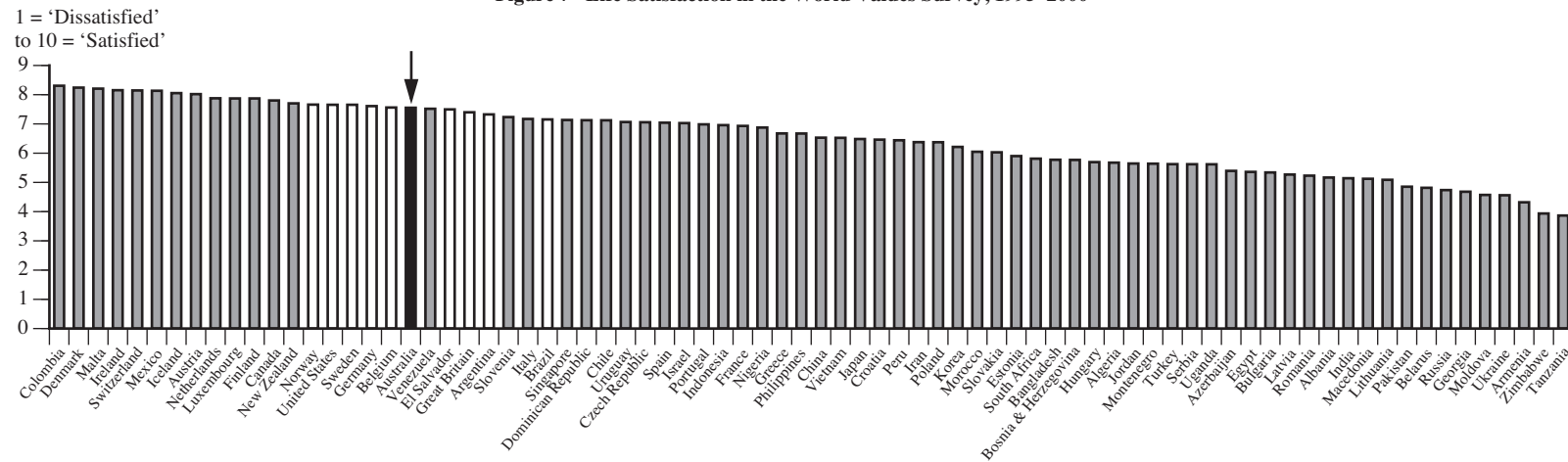


Figure 6 Happiness in the World Values Survey, 1995–2000



Note: Grey bars are significantly higher or lower than Australia at the 5 per cent level.

Figure 7 Life Satisfaction in the World Values Survey, 1995–2000



Note: Grey bars are significantly higher or lower than Australia at the 5 per cent level.

lower average happiness rankings than Australia, 62 are lower by a statistically significant margin.

In the case of life satisfaction, 13 countries have a life satisfaction ranking that exceeds Australia's ranking by a statistically significant margin: Colombia, Denmark, Malta, Ireland, Switzerland, Mexico, Iceland, Austria, Netherlands, Luxembourg, Finland, Canada and New Zealand. Only three of these countries are English-speaking. Fifty-nine countries have a lower life satisfaction ranking than Australia, 55 by a statistically significant margin. Overall, only Iceland outranks Australia by a statistically significant margin using both happiness and life satisfaction questions.

Indeed, Australia's relatively high levels of well-being have been a consistent theme since the first major cross-national happiness surveys were conducted in the 1940s (we report here only rankings within comparable studies). In the 1948 Gallup Poll, Australia ranked first of five nations on happiness. In the 1948 Tension Study, Australia ranked second of nine nations on life satisfaction. In the 1975 Kettering Survey, Australia ranked 4/12 for happiness, 1/12 for life satisfaction, and 2/12 for respondents agreeing that they were living the best possible life. In a 1979 survey conducted by the Leisure Development Center, Australia ranked 2/13 for happiness, and 3/13 for life satisfaction. In the first wave of the World Values Survey conducted over the period 1981–1984, Australia ranked 5/21 for happiness, and 7/22 for life satisfaction. In the 1991 ISSP, Australia ranked 4/15 for happiness. In the 1998 ISSP, Australia ranked 6/30 for happiness. In the 2001 ISSP, Australia ranked 9/27 for happiness. In the 2002 ISSP, Australia ranked 11/32 for happiness.⁸ In a 2004–05 Roper Reports Worldwide study from GfK NOP (released after the publication of Blanchflower and Oswald's article), Australia ranked 1/30 for happiness. Full results from these studies are provided in the Appendix to Leigh and Wolfers (2005). Throughout the period that cross-national happiness and life satisfaction surveys have been conducted, Australia has consistently ranked among the top tier of nations.

5. Conclusion

In two major international surveys, we find a modest positive relationship between the HDI and happiness, and a stronger positive relationship between the HDI and life satisfaction. Similar patterns are found using GDP per capita. In each case, Australia lies slightly above the regression line, indicating that Australians are a little happier (or more satisfied) than the country's ranking in the HDI (or national income per capita) would predict.

Using the World Values Survey, the largest cross-national survey that includes questions on both happiness and life satisfaction, we found that Australia ranked 12th out of 77 countries for happiness, and 19th out of 78 for life satisfaction. Ordered logits show that some of these differences are not statistically significant. In this survey, only one country (Iceland) beat Australia by a significant margin for both happiness and life satisfaction. This should come as no surprise: across cross-national surveys conducted from the 1940s to the 1980s, Australians have consistently ranked themselves highly on measures of subjective well-being.

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Endnotes

1. The HDI is comprised of three equally-weighted sub-indices: a life expectancy index (based on life expectancy at birth), an education index (based on adult literacy, school enrolment and university enrolment), and a GDP index (based on GDP per capita in US dollars at purchasing power parity).
2. In the few cases where the ISSP surveys entities that are not recognised as nation states (for example, Northern Ireland, Great Britain, East Germany and West Germany), these are combined to form countries, so that they can be matched to the HDI.
3. The responses and their values were 'Completely happy' (7), 'Very happy' (6), 'Fairly

happy' (5), 'Neither happy nor unhappy' (4), 'Fairly unhappy' (3), 'Very unhappy' (2) and 'Completely unhappy' (1).

4. Both surveys also include some entities that are not recognised as countries by the United Nations (for example, Northern Ireland and Puerto Rico). We drop these from our analysis.

5. The life satisfaction question in the World Values Survey asks, 'All things considered, how satisfied are you with your life as a whole these days?' (rankings are from 1 dissatisfied to 10 satisfied). The happiness question asks, 'Taking all things together, would you say you are 4 very happy, 3 quite happy, 2 not very happy, 1 not at all happy?' (coding reversed from original).

6. Using the linear stretch methodology of Veenhoven (2005), it is possible to compare various surveys by converting them to a 0–10 scale. For happiness, Australia's 1995 World Values Survey score equates to 7.8 on a 0–10 scale. The three most recent happiness surveys (rescaled from 0–10) are the 2003 Australian Unity Wellbeing Index (Wave 8) which estimated mean happiness at 7.8, the 2003 Australian Survey of Social Attitudes which recorded a mean happiness level of 7.6, and the 2004–05 Roper Reports Worldwide study from GfK NOP which estimated mean happiness at 7.9. For life satisfaction, Veenhoven (2005) rescales Australia's 1995 World Values Survey score as 7.3 on a 0–10 scale. A similar life satisfaction question (on a 0–10 scale) in the Household, Income and Labour Dynamics in Australia survey recorded a mean of 8.0 in 2001, 7.9 in 2002 and 8.0 in 2003.

7. In this comparison, what matters is not the country's official language, but whether the happiness/life satisfaction questions were translated into another language. We denote a country as English-speaking if the World Values Survey was administered in English to more than two-thirds of respondents in that country.

8. Blanchflower and Oswald rank Australia 12th in the 2002 ISSP, since they treat Northern Ireland as a separate entity. Our analysis ranks only countries, and we therefore combine Northern Ireland with Great Britain.

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