

The Economics of Happiness

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Abstract

The economics of happiness assesses welfare by combining economists' and psychologists' techniques, and relies on more expansive notions of utility than does conventional economics. The research highlights factors other than income that affect well-being. It is well suited to informing questions in areas where revealed preferences provide limited information – for example, the welfare effects of inequality and of inflation and unemployment. Despite the potential contributions for policy, a note of caution is necessary because of the potential biases in survey data and the difficulties in controlling for unobservable personality traits.

Economics of happiness

The economics of happiness is an approach to assessing welfare which combines the techniques typically used by economists with those more commonly used by psychologists.

While psychologists have long used surveys of reported well-being to study happiness, economists only recently ventured into this arena. Early economists and philosophers, ranging from Aristotle to Bentham, Mill, and Smith, incorporated the pursuit of happiness in their work. Yet, as economics grew more rigorous and quantitative, more parsimonious definitions of welfare took hold. Utility was taken to depend only on income as mediated by individual choices or preferences within a rational individual's monetary budget constraint.

Even within a more orthodox framework, focusing purely on income can miss key elements of welfare. People have different preferences for material and non-material goods. They may choose a lower-paying but more personally rewarding job, for example. They are nonetheless acting to maximize utility in a classically Walrasian sense.

The study of happiness or subjective well-being is part of a more general move in economics that challenges these narrow assumptions. The introduction of bounded rationality and the establishment of behavioural economics, for example, have opened new lines of research. Happiness economics – which represents one new direction – relies on more expansive notions of utility and welfare, including interdependent utility functions, procedural utility, and the interaction between rational and non-rational influences in determining economic behaviour.

Richard Easterlin was the first modern economist to revisit the concept of happiness, beginning in the early 1970s. More generalized interest took hold in the late 1990s (see, among others, Easterlin, 1974; 2003; Blanchflower and Oswald, 2004; Clark and Oswald, 1994; Frey and Stutzer, 2002a; Graham and Pettinato, 2002; Layard, 2005).

The approach

The economics of happiness does not purport to replace income-based measures of welfare but instead to complement them with broader measures of well-being. These measures are based on the results of large-scale surveys, across countries and over time, of hundreds of thousands of individuals who are asked to assess their own welfare. The surveys provide information about the importance of a range of factors which affect well-being, including income but also others such as health, marital and employment status, and civic trust.

The approach, which relies on expressed preferences rather than on revealed choices, is particularly well suited to answering questions in areas where a revealed preferences approach provides limited information. Indeed, it often uncovers discrepancies between expressed and revealed preferences. Revealed preferences cannot fully gauge the welfare effects of particular policies or institutional arrangements which individuals are powerless to change. Examples of these include the welfare effects of inequality, environmental degradation, and macroeconomic policies such as inflation and

unemployment. Sen's capabilities-based approach to poverty, for example, highlights the lack of capacity of the poor to make choices or to take certain actions. In many of his writings, Sen (1995) criticizes economists' excessive focus on choice as a sole indicator of human behaviour. Another area where a choice approach is limited and happiness surveys can shed light is the welfare effects of addictive behaviours such as smoking and drug abuse.

Happiness surveys are based on questions in which the individual is asked, 'Generally speaking, how happy are you with your life' or 'How satisfied are you with your life', with possible answers on a four-to-seven point scale. Psychologists have a preference for life satisfaction questions. Yet answers to happiness and life satisfaction questions correlate quite closely. The correlation coefficient between the two – based on research on British data for 1975–92, which includes both questions, and Latin American data for 2000–1, in which alternative phrasing was used in different years – ranges between .56 and .50 (Blanchflower and Oswald, 2004; Graham and Pettinato, 2002).

This approach presents several methodological challenges (for a fuller description of these, see Bertrand and Mullanaithan, 2001; Frey and Stutzer, 2002b). To minimize order bias, happiness questions must be placed at the beginning of surveys. As with all economic measurements, the answer of any specific individual may be biased by idiosyncratic, unobserved events. Bias in answers to happiness surveys can also result from unobserved personality traits and correlated measurement errors (which can be corrected via individual fixed effects if and when panel data are available). Other concerns about correlated unobserved variables are common to all economic disciplines.

Despite the potential pitfalls, cross-sections of large samples across countries and over time find remarkably consistent patterns in the determinants of happiness. Many errors are uncorrelated with the observed variables, and do not systematically bias the results. Psychologists, meanwhile, find validation in the way that people answer these surveys based in physiological measures of happiness, such as the frontal movements in the brain and in the number of 'genuine' – Duchenne – smiles (Diener and Seligman, 2004).

Micro-econometric happiness equations have the standard form: $W_{it} = \alpha + \beta x_{it} + \epsilon_{it}$, where W is the reported well-being of individual i at time t , and X is a vector of

known variables including socio-demographic and socioeconomic characteristics. Unobserved characteristics and measurement errors are captured in the error term. Because the answers to happiness surveys are ordinal rather than cardinal, they are best analysed via ordered logit or probit equations. These regressions typically yield lower R-squares than economists are used to, reflecting the extent to which emotions and other components of true well-being are driving the results, as opposed to the variables that we are able to measure, such as income, education, and marital and employment status. (Cross section work also typically yields low R-squares.)

The availability of panel data in some instances, as well as advances in econometric techniques, are increasingly allowing for sounder analysis (Van Praag and Ferrer-i-Carbonell, 2004). The coefficients produced from ordered probit or logistic regressions are remarkably similar to those from OLS regressions based on the same equations. While it is impossible to measure the precise effects of independent variables on true well-being, happiness researchers have used the OLS coefficients as a basis for assigning relative weights to them. They can estimate how much income a typical individual in the United States or Britain would need to produce the same change in stated happiness that comes from the well-being loss resulting from, for example, divorce (\$100,000) or job loss (\$60,000) (Blanchflower and Oswald, 2004).

The Easterlin paradox

In his original study, Easterlin revealed a paradox that sparked interest in the topic but is as yet unresolved. While most happiness studies find that *within* countries wealthier people are, on average, happier than poor ones, studies across countries and over time find very little, if any, relationship between increases in per capita income and average happiness levels. On average, wealthier countries (as a group) are happier than poor ones (as a group); happiness seems to rise with income up to a point, but not beyond it. Yet even among the less happy, poorer countries, there is not a clear relationship between average income and average happiness levels, suggesting that many other factors – including cultural traits – are at play (see Figure 1).

[Insert Figure 1 about here]

Within countries, income matters to happiness (Oswald, 1997; Diener et al., 2003, among others). Deprivation and abject poverty in particular are very bad for happiness. Yet after basic needs are met other factors such as rising aspirations, relative income differences, and the security of gains become increasingly important, in addition to income. Long before the economics of happiness was established, James Duesenberry (1949) noted the impact of changing aspirations on income satisfaction and its potential effects on consumption and savings rates. Any number of happiness studies have since confirmed the effects of rising aspirations, and have also noted their potential role in driving excessive consumption and other perverse economic behaviours (Frank, 1999).

Thus, a common interpretation of the Easterlin paradox is that humans are on a 'hedonic treadmill': aspirations increase along with income and, after basic needs are met, relative rather than absolute levels of income matter to well-being. Another interpretation of the paradox is the psychologists' 'set point' theory of happiness, in which every individual is presumed to have a happiness level that he or she goes back to over time, even after major events such as winning the lottery or getting divorced (Easterlin, 2003). The implication of this theory for policy is that nothing much can be done to increase happiness.

Individuals are remarkably adaptable, no doubt, and in the end can get used to most things, and in particular to income gains. The behavioural economics literature, for example, shows that individuals value losses more than gains (see Kahneman, Diener and Schwarz, 1999, among others). Easterlin argues that individuals adapt more in the pecuniary arena than in the non-pecuniary arena, while life changing events, such as bereavement, have lasting effects on happiness. Yet, because most policy is based on pecuniary measures of well-being, it overemphasizes the importance of income gains to well-being and underestimates that of other factors, such as health, family, and stable employment.

There is no consensus about which interpretation is most accurate. Yet numerous studies which demonstrate that happiness levels can change significantly in response to a variety of factors suggest that the research can yield insights into human well-being which provide important, if complementary, information for policymakers. Even under

the rubric of set point theory, happiness levels can fall significantly in the aftermath of events like illness or unemployment. Even if levels eventually adapt upwards to a longer-term equilibrium, mitigating or preventing the unhappiness and disruption that individuals experience for months, or even years, in the interim certainly seems a worthwhile objective for policy.

Selected applications of happiness economics

Happiness research has been applied to a range of issues. Since a comprehensive review cannot be undertaken here, a selection of some of the issues the surveys can inform is provided. These include the relationship between income and happiness, inequality and poverty, the effects of macro-policies on individual welfare, and the effects of public policies aimed at controlling addictive substances.

Some studies have attempted to separate the effects of income from those of other endogenous factors, such as satisfaction in the workplace. Studies of unexpected lottery gains find that these isolated gains have positive effects on happiness, although it is not clear that they are of a lasting nature (Gardner and Oswald, 2001). Other studies have explored the reverse direction of causality, and find that people with higher happiness levels tend to perform better in the labour market and to earn more income in the future (Diener et al., 2003; Graham, Eggers and Sukhtankar, 2004).

A related question, and one which is still debated in economics, is how income inequality affects individual welfare. Interestingly, the results differ between developed and developing economies. Most studies of the United States and Europe find that inequality has modest or insignificant effects on happiness. The mixed results may reflect the fact that inequality can be a signal of future opportunity and mobility as much as it can be a sign of injustice (Alesina, Di Tella and MacCulloch, 2004). In contrast, recent research on Latin America finds that inequality is negative for the well-being of the poor and positive for the rich. In a region where inequality is much higher and where public institutions and labour markets are notoriously inefficient, inequality signals persistent disadvantage or advantage rather than opportunity and mobility (Graham and Felton, 2005).

Happiness surveys also facilitate the measurement of the effects of broader, non-income components of inequality, such as race, gender, and status, all of which seem to be highly significant (Graham and Felton, 2005). These results find support in work in the health arena, which finds that relative social standing has significant effects on health outcomes (Marmot, 2004).

Happiness research can deepen our understanding of poverty. The set point theory suggests that a destitute peasant can be very happy. While this contradicts a standard finding in the literature – namely, that poor people are less happy than wealthier people within countries – it is suggestive of the role that low expectations play in explaining persistent poverty in some cases. The procedural utilities and capabilities approaches, meanwhile, emphasize the constraints on the choices of the poor.

What is perceived to be poverty in one context may not be in another. People who are high up the income ladder can identify themselves as poor, while many of those who are below the objective poverty line do not, because of different expectations (Rojas, 2004). In addition, the well-being of those who have escaped poverty is often undermined by insecurity and the risk of falling back into poverty. Income data does not reveal the vulnerability of these individuals, yet happiness data shows that it has strong negative effects on their welfare. Indeed, their reported well-being is often lower than that of the poor (Graham and Pettinato, 2002).

Happiness surveys can be used to examine the effects of different macro-policy arrangements on well-being. Most studies find that inflation and unemployment have negative effects on happiness. The effects of unemployment are stronger than those of inflation, and hold above and beyond those of forgone income (Di Tella, MacCulloch and Oswald, 2001). The standard ‘misery index’, which assigns equal weight to inflation and unemployment, may be underestimating the effects of the latter on well-being (Frey and Stutzer, 2002b).

Political arrangements also matter. Much of the literature finds that both trust and freedom have positive effects on happiness (Helliwell, 2003; Layard, 2005). Research based on variance in voting rights across cantons in Switzerland finds that there are positive effects from *participating* in direct democracy (Frey and Stutzer, 2002b).

Research in Latin America finds a strong positive correlation between happiness and preference for democracy (Graham and Sukhtankar, 2004).

Happiness surveys can also be utilized to gauge the welfare effects of various public policies. How does a tax on addictive substances, such as tobacco and alcohol, for example, affect well-being? A recent study on cigarette taxes suggests that the negative financial effects may be outweighed by positive self-control effects (Gruber and Mullainathan, 2002).

Policy implications

Richard Layard (2005) makes a bold statement about the potential of happiness research to improve people's lives directly via changes in public policy. He highlights the extent to which people's happiness is affected by status – resulting in a rat race approach to work and to income gains, which in the end reduces well-being. He also notes the strong positive role of security in the workplace and in the home, and of the quality of social relationships and trust. He identifies direct implications for fiscal and labour market policy – in the form of taxation on excessive income gains and via re-evaluating the merits of performance-based pay.

While many economists would not agree with Layard's specific recommendations, there is nascent consensus that happiness surveys can serve as an important complementary tool for public policy. Scholars such as Diener and Seligman (2004) and Kahneman et al. (2004) advocate the creation of national well-being accounts to complement national income accounts. The nation of Bhutan, meanwhile, has introduced the concept of 'gross national happiness' to replace gross national product as a measure of national progress.

Despite the potential contributions that happiness research can make to policy, a sound note of caution is necessary in directly applying the findings, both because of the potential biases in survey data and because of the difficulties associated with analysing this kind of data in the absence of controls for unobservable personality traits. In addition, happiness surveys at times yield anomalous results which provide novel insights into human psychology – such as adaptation and coping during economic crises – but do not translate into viable policy recommendations.

One example is the finding that unemployed respondents are happier (or less unhappy) in contexts with higher unemployment rates. The positive effect that reduced stigma has on the well-being of the unemployed seems to outweigh the negative effects of a lower probability of future employment (Clark and Oswald, 1994; Stutzer and Lalive, 2004; and Eggers, Gaddy and Graham, 2005). (Indeed, in Russia even *employed* respondents prefer higher regional unemployment rates. Given the dramatic nature of the late 1990s crisis, respondents may adapt their expectations downwards and are less critical of their own situation when others around them are unemployed.) One interpretation of these results for policy – raising unemployment rates – would obviously be a mistake. At the same time, the research suggests a new focus on the effects of stigma on the welfare of the unemployed.

Happiness economics also opens a field of research questions which still need to be addressed. These include the implications of well-being findings for national indicators and economic growth patterns; the effects of happiness on behaviour such as work effort, consumption, and investment; and the effects on political behaviour. In the case of the latter, surveys of unhappiness or frustration may be useful for gauging the potential for social unrest in various contexts.

In order to answer many of these questions, researchers need more and better quality well-being data, particularly panel data, which allows for the correction of unobserved personality traits and correlated measurement errors, as well as for better determining the direction of causality (for example, from contextual variables like income or health to happiness versus the other way around). These are major challenges in most happiness studies. Hopefully, the combination of better data and increased sophistication in econometric techniques will allow economists to better address these questions in the future.

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See also Sen, Amartya; hedonism; psychology and economics; revealed preference theory; sources of wage heterogeneity; utilitarianism

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Index terms

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psychologists: vs economists

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Sen, A.: capabilities-base approach to poverty

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Happiness and Income Per Capita, 1990s

