Happiness Economics: A Brief on the Validity of ‘Subjective Well-Being’ Metrics

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Abstract: In the last decade, there has been considerable criticism of the general reliance on GDP as a proxy indicator of progress and development. One strand of criticism focuses on ‘The Easterlin Paradox’ and the inability of GDP to capture the subjective well-being (the scientific term for ‘Happiness’) of a nation. Richard Easterlin argues that his paradox underlies (mis-)judgments in this particular nature of welfare. New opportunities to empirically explore preconditions and covariates of well-being that go beyond the traditional GDP metrics have spurred impressive and stimulating new research and the ‘Economics of Happiness’ has emerged as one of the most thriving subjects of the discipline. This briefing paper re-assesses the ‘Easterlin Paradox’ using recent data on an array of countries to draw out lessons for public policymaking. The brief is intended to provide a concise summary of research knowledge on ‘Happiness Economics’ in an accessible form to a varied audience – including academics, policymakers, civil-societies and students.

Keywords: Happiness Economics, Subjective Well-Being, Easterlin Paradox, Hedonic Adaptation, Projection Bias, Social Comparison, Public Policy.

Introduction: The Dismal Science

As irony would have it, Economics has been dubbed the ‘dismal science’ – “… a dreary, desolate, and indeed quite abject and distressing one…” (Carlyle 1849 cited in Levy 2001 p.20) – not for the obvious reasons, such as, its cold mathematical models or its gloomy agenda of scarcity, inefficiency and market disequilibria. Instead, Classical Economists were considered dismal because the Victorian sages at the time were horrified that slavery was being replaced by a ‘laissez-faire’ system in which human behaviour was motivated, primarily, by the pursuit of pleasure and the avoidance of pain. Classical Economists were deemed quite dismal because, already in the 19th Century, they were flirting with a hedonic theory of happiness – an understanding of ‘utility’ as the sum of good feelings minus bad, and this stance (again, according to Victorian discourse) projected a vision of man as a “dead Iron-Balance for weighing Pains and Pleasures on” (Carlyle 1849 cited in Rutherford 2012 p.48).

Negative criticism, a miserably wrong conception, a false etymology, and yet, ‘dismal’ became a self-fulfilling prophecy in Economics as happiness was erased from collective memory, more parsimonious definitions of welfare took hold and qualification for mathematical analysis became the underlying principle that mutated utility into an abstract concept. As economics grew more rigorous, utility ended up being correlated only to income; totally dependent on rational choices or preferences within an individual’s monetary budget constraint (Graham 2011).

The story begins with Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1873), two English philosophers that are widely regarded as the founding fathers of the controversial
philosophical school of ‘Consequentialists’, also known by the more common label of “Utilitarians.” Bentham described utility as:

“…that property in any object, whereby it tends to produce benefit, advantage, pleasure, good, or happiness (all this in the present case comes to the same thing) or (what comes again to the same thing) to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered” (Bentham1781 p.14-15).

He tried to assess the merits of any action according to how much pleasure and pain it produced. This was during the Enlightenment, when religious standards for right and wrong were being replaced by rationality and science. Bentham went so far as to formulate an algorithm – the ‘Felicific (Happiness) Calculus’ – to determine pleasure and pain by balancing 12 pains (the pains of privation, the senses, awkwardness, enmity, ill name, piety, benevolence, malevolence, memory, imagination, expectation, association) and 14 pleasures (the pleasures of the senses, wealth, skill, amity, good name, power, piety, benevolence, malevolence, memory, imagination, expectation, association, relief).

Bentham, Mill and their disciples argued that public policy should be conducted so as to maximise the sum of utility (happiness) in society:

“In fact, 19th century utilitarianism can be regarded as the intellectual foundation for what we now know as ‘Cost-benefit analysis’ and ‘Welfare Economics’. Only in theory however, because although the concept of utility was enthusiastically endorsed and eventually transformed into an economic canon, Bentham’s approach was discarded as too difficult and messy. For almost two centuries, economists fell silent about happiness and the weights of pleasure and pain on man’s scales. Utility as happiness may have since been applied to shortlist a more effective set of determinants of well-being, besides the production and consumption of goods and services by the market. It might have helped us to develop a more realistic model of homo economicus as a ‘multiple-goal-oriented’ and potentially ‘bounded’ rational player.

Yet, mainstream economists chose to concentrate on a more coherent and unambiguously definable subject of investigation and settled to study outward behaviour, not inward feelings; choices made, not pleasures and pains derived from such actions. The main debate focused on how to buy happiness with material wealth (Carabelli & Cedrini 2009).

Indeed, this silencing reached a dead pause in the 1930s, when Welfare economics, was once and for all seasoned in purely mathematical terms with the assertion of the ‘social welfare function’ as defined by Abram Bergson in 1938 and elucidated further in 1947 by Paul Samuelson in the Foundations of Economic Analysis (Igersheim 2017). In the meantime, Simon Kuznets, in the U.S., and Richard Stone, in the UK, were both busy working on a compilation of national accounts from which the measurement of the Gross Domestic Product (GDP) eventually evolved. They were not really concerned with utility and GDP figures were meant to serve as a quick gauge on productive capacity components during emergency situations like war or a financial crisis. GDP was never designed to be a measure of happiness.
Kuznets himself, in a Report to the US Congress in 1934, made it clear from the outset that his work in times of war was not sufficient as a proxy for prosperity alone. He exclaimed that “the welfare of a nation can scarcely be inferred from a measurement of national income” (Kuznets 1934 p.7). Actually he never wanted to include expenses on “…armaments, most of the outlays on advertising, a great many of the expenses involved in financial and speculative activities…” (Copeland 1937 p.37). Kuznets was highly sceptical: “He argued that Commerce’s method tautologically ensured that fiscal spending would increase measured economic growth regardless of whether it actually benefited individuals’ economic welfare” (Kane 2012 p.10).

But the combination of a straightforward metric, belief in the all-revealing properties of the spending patterns of a nation, and the rise of the Keynesian clout in the newly formed International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD aka the World Bank), saw the adoption of GDP as the only key indicator of economic growth and a shorthand for increasing living standards, progress, prosperity, well-being, and the lot. In his 1940 pamphlet called ‘How to Pay for the War’, Keynes went so far as to argue, that when you are looking for a ‘quick fix’ to turn on the economy, the switches you reach out for will be the largest and most reachable ones in your equation: final consumption and government spending. Crucially, with the disposable income and expenditure approach winning over Kuznets’s more welfare-based approach, Keynesian macroeconomics became the fundamental basis of how governments fine-tuned their economies in the post-war era. Yet, just like Kuznets, very recent studies reveal that whilst Keynes was arguing that total spending determines all economic outcomes, from production to employment, he never approved of GDP as a good measure of well-being. Keynes maintained that happiness was a multi-layered complex of values, desires, and virtues, therefore anything but in line with the homogeneous, one-dimensional concept of GDP:

“Keynes was perfectly aware that money cannot buy happiness: to him material wealth and happiness belong to separate ethical domains or even different ethics. Economics belongs to practical ethics, and his belief is that it must be considered as an instrument to attain the ultimate aims of speculative ethics, such as happiness. […] income itself is for Keynes a complex magnitude belonging to a context, that of monetary macroeconomies, characterized by organic interdependence among variables as well as problems of multidimensionality, incommensurability and non-comparability” (Carabelli & Cedrini 2009, p.36).

Although, in an unacknowledged and suppressed state, Keynes’s belief that material wealth is a prerequisite but not the ultimate condition to enjoy a good life together with his concerns about the problems of incommensurability marked by the complex nature of happiness, formed a continuum of disquiet amongst economists.

Beginning with the early 1970s, Richard Easterlin (1974) was the first modern economist to retrace the concept of happiness. In 1974, he observed that the trendline for American happiness has been flat between 1946 and 1970 even though the GDP per person grew by 65% over the same period of time. He went on to find a similar disconnection in other countries as well, and although at any point in time, the rich were relatively happier, both among and within nations, over time, the long-term growth rates of happiness and income did not show any significant correlation. Thus, he went on to postulate that since countries with higher per capita incomes tend to have more stable democracies, better education and health conditions and more secure basic human rights, these same conditions (associated with but distinct to income), may be the agents behind the observed positive connection between income and happiness in the immediate term. This theory is called
the ‘Happiness-Income Paradox’ or as it is more commonly known, the ‘Easterlin Paradox’, and it has been contested ever since, with some researchers (particularly Hagerty & Veenhoven 2006; Deaton 2008; Stevenson & Wolfers 2008; Inglehart et. al. 2008; Sacks et al. 2013) claiming that with newer and more representative datasets from the Gallup World Poll, a link between happiness and an increasing level of income can be observed over time, after all.

In the 1980s Amartya Sen introduced a new discourse on ‘capabilities’, which, unlike ‘commodities’, do not show up in GDP figures but they are the concrete doings and beings that make possible the conversion of commodities into quality of life (Ruta et al. 2007). Accordingly, material wealth is primarily a means, not an end in itself:

"...economic growth cannot sensibly be treated as an end in itself. Development has to be more concerned with enhancing the lives we lead and the freedoms we enjoy. Expanding the freedoms that we have reason to value not only makes our lives richer and more unfettered, but also allows us to be fuller social persons, exercising our own volitions and interacting with – and influencing – the world in which we live." (Sen 1999 p.14).

A few years later, Sen managed, albeit half-heartedly, to bring the idea to fruition with the help of Mahbub ul Haq, a good old friend from the days at university and project leader of the UN Human Development Index (HDI). Launched in 1990, this simple HDI index was intended as a supplement to GDP with data on life expectancy, literacy, and education (figures that were basically already available worldwide but never grouped up as a multivariate index) so as to equip the UN with a better ranking system of countries across the globe. This was ul Haq’s essential contribution; a ‘vulgar’ measure (as later described by Sen due to its limitations), but a better measure of aspects of well-being than pure income.

In reality, Sen’s idea that such sensitive data can be better presented with a dashboard of indicators rather than as a single number in a ranked list, did not fall through the cracks. In 2009, together with economists Joseph Stiglitz and Jean-Paul Fitoussi, he was involved in a study commissioned by French president Nicolas Sarkozy, entitled ‘Mismeasuring Our Lives: Why GDP Doesn’t Add Up’. Adopting a user-friendly, yet challenging rhetoric, the report immediately became a global wonk sensation, advocating for social relations and subjective values about quality of life, as complementary indicators, alongside GDP.

Two years later, in October 2011, on the occasion of its 50th anniversary, the Organisation for Economic Co-operation and Development (OECD) responded to the call with the unveiling of ‘Your Better Life Index’ – a smart data visualisation technique that synthesises statistics on income, jobs, housing, health, work and life-balance, education, social connections, civic engagement and governance, environment, personal security and subjective well-being, into moving, interactive graphics, à la Hans Rosling.

The OECD Index epitomised a legion of indices ranging from single-issue rankings such as the Happy Planet Index (New Economics Foundation), Index of Economic Freedom (Heritage Foundation) to broader measures of well-being such as the UK’s Legatum Prosperity Index, the EU’s Quality of Life Index, and Bhutan’s Gross National Happiness Index. Finally, with these new tools at hand, an explosion of surveys and empirical studies about happiness and well-being took off. Figure 1 depicts a personal compilation of the development in the number of referenced publications on ‘Google Scholar’ (since the early seventies), with these two keywords incorporated in the title. It clearly shows a take-off at the turn of the millennium.
In the end, who would have thought that this rediscovery of happiness in economics is today turning out to be one of the most thriving research areas in the dismal science?

Literature Review: Happiness Economics

In traditional economics, optimal decision-making is the rule of the day. People are assumed to be very considerate of the extra (marginal) costs and the extra (marginal) benefits associated with their daily choices. Standard economic models believe in 'homo economicus', a concept where unfailing rationality and narrow self-interest drive their agents to maximise both monetary and non-monetary gains (Persky 1995). Moreover, standard economic theory is convinced that utility can actually be measured, with proponents like Hicks (1939) arguing that 'decision utility', in other words observed choices, are the only way to empirically study the utility of individuals. Sen (1986 p.18) argued that this veneration in economics “may be due to a mixture of an obsessive concern with observables and a peculiar belief that choice (in particular, market choice) is the only human aspect that can be observed.”

An entirely different approach is adopted in the common discourse of other social sciences with various studies showing that human preferences are not always stable, especially if we were to take into account that ‘Social Recognition' (Brennan & Pettit 2004), ‘Status' (De Botton 2005) and ‘Intrinsic Motivation' (Frey & Osterloh 2011), are all major complications in man’s quest for maximisation of utility:

“...it is common to presume that people attempt to maximize their welfare but may not always be effective in doing so. The notion of (non-random) mistaken choices, alien to standard economics, is part and parcel of both daily life and most social sciences. If people pursue happiness, but are not always good at achieving it, then one reason might be that people sometimes choose options that are suboptimal for them. Accordingly, outside of standard economics, it is common to encounter prescriptions suggesting that certain consumption profiles yield greater satisfaction than others, and that people would be better off if they switched their default choices towards these alternative profiles” (Hsee et al. 2012 p.2).

Figure 1: Published articles on Happiness as referenced in Google Scholar

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In a pivotal way, after the global financial crisis of 2008, more and more scholars estranged themselves from neoclassic economic theories and acknowledged, more than ever, the reality that people are subject to perceptual errors, to cognitive biases, to idiosyncratic ways how and why they interpret particular situations, to consequences of herd spirit and mood swings. The topic of ‘Subjective well-being’ and the economics of happiness explore this notion of non-random and/or mistaken (suboptimal) choices. Observed behaviour reflecting ‘decision utility’ is now supported and substantiated further with specific information about people’s ‘experienced utility’ as they are encouraged to report on their emotions and evaluative judgments. Subjective well-being research relies on expressed preferences rather than on ‘revealed choices’ (Frey & Stutzer 1999).

Subjective Well-Being surveys are designed to take human behaviour as it is and treat people’s subjective assessment of their quality of life as a ‘fuzzy measure’ of their experienced utility. Large-scale panel surveys at a cross-country level feed in information about the significance of a range of postulated determinants that affect well-being, including income but also health, marital status, work-life balance, and trust in authorities:

“*The new metrics allow us to place relative weights on the cost of things like a lost job, a divorce, various health conditions, commuting time, and even uncertainty. On the other hand, they also allow us to evaluate the benefits of participating in democracy, of being part of a civic organization, and of exercising, among other things*” (Graham 2012 p.7).

As Helliwell and Barrington-Leigh (2010 p.16) reinforce “…the analyst then faces the job of inferring, from the variety of information available about the circumstances of individual lives, the relative importance of the variety of economic and non-economic aspects of life. This method offers even more than the possibility of testing alternative assumptions or assessments of what produces well-being”. Above all, this approach allows us to address issues where a revealed preferences approach provides very limited information. Indeed, one of the novelties introduced by Happiness Economics is the ability of its practices to uncover discrepancies between expressed and revealed preferences. Some key insights and conceptual considerations are nicely presented in Kahneman and Thaler (2006). Of particular interest is the theory of ‘Hedonic Adaptation’. Brickman and Campbell (1971) were the first to propose the ‘hedonic treadmill’ effect. They observed that people usually react sharply to the events that occur in their lives. These events can lead to increases or decreases in their happiness depending obviously on the nature of these events. But as time goes on, there is a tendency for people to quickly return to a relatively stationary level or a ‘set point’ of happiness as illustrated in figure 2 below:

![Figure 2: Visualisation of the ‘Hedonic Treadmill’](image)

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In the theoretical work of Loewenstein et al. (2003), the study of hedonic adaptation is taken a step further and the prevalence of ‘Projection Bias’ is also documented. People tend to hold incorrect intuitive ideas about the determinants of their happiness in the future. In other words, people exaggerate the degree to which their future-selves will share the same beliefs, values, and behaviours as their current-selves and, as a result of this self-forecasting error, they make short-sighted decisions based on their current states of mind and being, that will not necessarily hold up for long.

This is particularly so with experienced utility from material consumption, where people often underestimate the power and speed of hedonic adaptation to material living standards. Popular phrases, like “the chase is better than the catch” and “having eyes bigger than your stomach”, are really about our current vision for our future-self being inaccurate. In contrast, experienced utility from social, challenging, self-determining situations are less susceptible to hedonic adaptation as they are somehow constantly being renewed. Powdthavee and Stutzer (2014 p.7-8) explain why, for instance:

“...people adapt to a rise in income much faster than they do with the onset of a severe disability [...] because one's paycheck is largely in the background most of the time, whereas being seriously disabled is full-time. We do not spend most of our waking moments thinking about how much money we earn. However, we may still be reminded about our disability from time to time if it incapacitates us from doing day-to-day activities such as climbing stairs or getting dressed by ourselves.”

Consequently, in trade-off situations, if too much weight is given to material interactions and possessions, people will always end up choosing options according to a biased evaluation and their experienced utility will always be lower than what they could otherwise enjoy. According to Stutzer and Frey (2012 p.12):

“This result is consistent with the general claim that people overvalue income relative to leisure and that the “work-life balance” of individuals today is distorted. People are induced to work too much and to disregard other aspects of life. This proposition is frequently put forward for career people who are said to be “overworked”.

Research on the economics of happiness has observed patterns of adaptation in many areas of life whereby the degree of adaptation and projected bias differ systematically across experiences of marriage and divorce, promotions and layoffs, birth of a child and death of a relative, winning the lottery, and being the victim of crime (see Clark et al. 2008; Frijters et al. 2011; Zhang et al. 2014; Reto & Stutzer 2019). But perhaps the strongest evidence for these theories has come from the ‘Happiness-Income Paradox’ unearthed by Richard Easterlin.

In ‘Building a Better Theory of Well-Being’, Easterlin (2003) presents the findings of a longitudinal survey of the American population. In 1978, he handed them a card listing 24 big-ticket items, such as a car, television, holidays abroad, swimming pool, and summer houses. To start the survey, they were asked the following question: “When you think of the good life, the life you'd like to have, which of the items on this list, if any, are part of that good life as far as you personally are concerned?” Respondents were then asked to tick off items on the list that they already owned. The same survey was then conducted 16 years later, in 1994, and what was most telling was that, while respondents owned more items (3.1 items compared to 1.7 items in 1978), they also desired more items on the list (5.6 items required for the good life as opposed to 4.4 items in 1978).

The study clearly showed that whilst people’s ‘idea’ of what constitutes a good life changed as time passed, the gap between what they had and what they desperately desired remained
the same. They were always short of 2 items to attain their ideal – the same situation they were in at the start of the survey. This one step forward, two steps back scenario happens throughout the course of most people’s lives, making any long-term plan to happiness an elusive goal if only the accumulation of material things is taken into consideration. In other words, as individuals get more income and hence more achievements or material possessions, their expectations keep rising. Thus, what firstly made people to become or feel happier no longer does, because they have ‘adapted’ to the new status according to the also higher expectations.

Easterlin himself (Easterlin1995; Easterlin 2009; Easterlin & O’Conner 2020) and various champions of his theory have also drawn heavily on ‘Relative Income’ and ‘Social Comparison’ arguments to corroborate even further the validity of the paradox. Important amongst the studies that have found supportive evidence for these two premises include Clark and Oswald (1996), Neumark and Postlewaite (1998), Solnick and Hemenway (1998), McBride (2001), Stutzer (2004), Ferreri-Carbonell (2005), Jørgensen and Herby (2004), Miles and Rossi (2007), Clark and Senik (2010), Cheung and Lucas (2016). They have been revisiting the famous question – ‘If there were a rise in all incomes in a community by the same percentage, would it improve a typical person’s welfare?’. This inquiry was originally launched in Nobel Prize winner Gary Becker's (1974) article ‘A Theory of Social Interactions’, where a compare and contrast exercise was carried out between Thorstein Veblen and Adam Smith’s teachings on economic behaviour. Becker claims that in Smith’s worldview, a rise in absolute income is enough to boost the standard of living of an individual, while in Veblen’s tradition, an increase in national income that is directly proportional to one’s personal income would not change anything in terms of one’s desired living level because individuals tend to evaluate their living standards according to the commodities they should have compared to a relative social norm. In this sense, economic growth can result in a general rise in incomes but a person whose income has not increased enough to catch up with the social norm level will falsely feel poorer in comparison to other members of society. This insight suggests that economic progress does not yield a growth in happiness that one might have expected from the increase in material wealth. Thus, boosting the income of all does not raise the happiness of all. This is actually what Easterlin set out to find; concluding therefore that relative income and thus social comparison, are fundamental determinants of happiness.

**Methodology: The Easterlin Paradox**

Hedonic adaptation, projection bias, relative income, and social comparison have become fundamental components in the understanding of the process of happiness formation. They inspire a totally new understanding of utility in economics. The present study uses cross country-level data and a time-series assessment of the cross-section relationship between happiness and income growth to provide further insights on these components as revealed by the Easterlin Paradox. Analysis of cross-section relationships between income and happiness within and across countries and over time is the predominant evidence-based design for prevalence of the Easterlin Paradox. See Easterlin and Sawangfa (2010), Easterlin et al. (2010) and Easterlin and Angelescu (2012). Similarly, critical studies of the Easterlin Paradox like Hagerty and Veenhoven (2003), Deaton (2008), Inglehart et al. (2008), Stevenson and Wolfers (2008), Veenhoven and Vergunst (2014), and Bain (2019), also use this type of dataset for their rendition.

The World Happiness Rankings for eight countries that have dominated the charts of the United Nations Happiness Index for these last five years are compared with their respective GDP per capita in purchasing power parity (PPP) in constant 2017 International dollars. The United States of America is also included because of its interesting contribution to this exercise.
The statistics of GDP per capita (PPP) at constant 2017 international dollar prices are from the April 06, 2021 update of the World Development Indicators (WDI). Purchasing Power Parity caters for differences in cost of living across nations, allowing for more realistic comparisons of economic growth and standards of living between nations.

The yearly publication of the UN World Happiness Index is a well-known source of cross-country data and research on Subjective Well-Being. The underlying source of this happiness score is the Gallup World Poll – the most comprehensive and widespread survey in the world, connected with more than 99% of the world’s adult population. The main Subjective Well-Being question asked in the poll (known as the ‘Cantril Ladder’) is: “Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?” (Gallup Inc. 2021).

An important point to be observed with this data source is the variable definition of ‘Subjective Well-Being’. Scientific literature and Subjective Well-Being studies often use the terms ‘Subjective Well-Being’ and ‘Happiness’ synonymously, but they do distinguish in a very systematic way, between ‘Happiness’ (the emotional quality of an individual’s experience in a short-time period) and ‘Life Satisfaction’ (a person’s thoughts about her life over the long term). Figure 3 relates this distinction into a single scheme:

**Figure 3: The Subjective Well-Being Framework**

Diener et al. (2009 p.187) contend that “…subjective well-being is a broad concept that includes experiencing high levels of pleasant emotions and moods, low levels of negative emotions and moods, and high life satisfaction”. Similarly, Kahneman and Deaton (2010, p.1) refer to two different aspects of subjective well-being too, namely, emotional well-being (also called hedonic well-being or happiness) and life evaluation (or satisfaction of life). Their studies claim that happiness and life satisfaction have different correlations with income, concluding “…that high income buys life satisfaction but not happiness, and that low income is associated both with low life evaluation and low emotional well-being”. Bremner (2011) claims an even deeper notion that people essentially discern between happiness and life satisfaction. Furthermore, Bruni and Porta (2006), editors of Economics and Happiness: Framing the Analysis, one of the most comprehensive books on the return of happiness in economics, give an interesting introduction on the two dimensions of
hedonistic happiness – ‘Individual’ and ‘Social’ happiness. Individual happiness does not need social relationships, while social happiness manifests itself in social networks and communal (relative) settings.

The present study is not interested in a global evaluation of life satisfaction. The validity of the Easterlin Paradox and the relevance of income adaptation and social comparison will be examined from a more hedonistic view of happiness associated with a nation’s utility function grounded at a specific period of time and domain; the pre- and peri-COVID-19 pandemic years. Correspondingly, this distinction and discourse in favour of ‘Happiness’, the more immediate experience of subjective well-being, justifies the short-term and topical nature of the five-year panel data under investigation.

A final point to consider is that the World Happiness Rankings always report data from the happiness score averaged over the previous three years. For instance, World Happiness Report 2021 uses data that comes from the Gallup World Poll surveys from 2018 to 2020. The 2021 happiness report therefore does not reflect events that have taken place after 2020. Consequently, since the study will be comparing differences in the Happiness Score of a country with the changes in its real GDP (PPP) per capita over the years, a one-year lag needs to be allowed between the ‘Growth Rate’ of one indicator and the other. In other words, the difference in the Happiness Score reported in World Happiness Report 2021 from the previous report is to be compared to the difference in real GDP (PPP) per capita for the period 2019-2020. Obviously, this also applies to the other periods under consideration. ‘Growth Rates’ are to be solely used so as to allow for better comparisons at a cross-country level over the different time periods. The formula for calculating these growth rates is the basic percentage change formula:

$$g_t = \left[ \left( \frac{X_t}{X_{t-n}} \right) - 1 \right] \times 100$$

where $g_t$ is the growth rate in period $t$, $X$ is the variable being examined and $n$ is the time period of interest.

**Results**

During 2021, just like any other previous year, the ‘World Happiness Report’ depicts a strong linear relationship between happiness and log GDP (PPP) per capita. Using the latest official figures for all the countries covered in the 2021 UN World Happiness Report, Figure 4 boasts an $R^2$ value of 0.62, meaning that 62% of the variation in happiness across the countries of the world can be explained by a positive straight-line relationship with relative national income. The implication is that the world’s happiest countries have high GDP (PPP) per capita, and the least happy tend to be the very poor. But this correlation is not so straight and plain. The fact that logarithmic differences for GDP (PPP) per capita are being plotted allows us to model the well-known fact that there are decreasing marginal returns for happiness as income rises. In other words, for countries where income is high, an extra unit of money does not improve happiness as much as in a poor country.
According to further regression analysis presented by the UN officials in Table 11 of ‘Statistical Appendix I’ for Chapter 2 of World Happiness Report 2021, on average, a 1% change in GDP (PPP) per capita will only give rise to a 0.349 unit increase in happiness (from a happiness scale that ranges from 0 to 10). However, when GDP (PPP) per capita is included with ‘other’ variables the model explains 75% of the variance in happiness (Helliwell et al. 2021).

These ‘other’ determinants highlighted by the report are social support, life expectancy, freedom to make life choices, generosity, and freedom from corruption. Their inclusion demonstrates that other complements (not necessarily alternatives) to material wealth are significant for a happier environment. They are complementary because GDP is indeed correlated with most of these variables (more and better social services are expected from wealthier countries, for instance). Yet, the fact remains that differences in factors other than GDP seem to explain much more the variance in happiness for the countries that top the list.

Indeed, the graphical representations in Figure 5, clearly show the negative economic impact of the COVID-19 pandemic, with all eight countries that have dominated the charts of the United Nations Happiness Index for these last five years experiencing a varying degree of lapse in their economic growth in 2020. However, the Covid-19 outbreak seems to have done little to change the overall levels of happiness of most of these countries.
Finland has secured the top spot of the United Nation’s World Happiness Report for the fourth year in a row even though it is not the wealthiest among the 155 countries surveyed. When compared to countries like Denmark, Switzerland, the Netherlands, and the USA, its pre-pandemic increments of per capita real GDP are less generous. However, it still exhibits much greater year-on-year increments in its happiness scores, right through the pandemic year.

Interestingly, Switzerland and the USA started off the period under examination with a considerable slowdown in their per capita GDP and yet they were registering sizable gains in subjective well-being. Both countries managed not only to soar their happiness score but maintain it despite the pandemic. In an official blog, one of the World Happiness Report’s editors, Professor John F. Helliwell from the University of British Columbia, notes that “One possible explanation is that people see Covid-19 as a common, outside threat affecting everybody and that this has generated a greater sense of solidarity and fellow-feeling” (Worldhappiness.report 2021). In the case of the Netherlands, this comeback does not fully materialise itself because although it managed to shift from negative to positive variations in their happiness score during the pandemic, when last January the government imposed a national curfew (a first, since World War II), rioters hit the streets of all major cities.

Established in second place for three consecutive years, Denmark is well positioned when it comes to work-life balance, environment, and health. The Danes pride themselves of having one of the smallest income distribution gaps in the world. Actually, the UN Happiness Reports faithfully claim that happiness thrives best in societies where people share both the benefits and the burdens of communal living in more equal ways, and the Nordic countries are the ones who value the most this type of social and political model. That explains why they keep swapping places and orbiting in the top ten podium of the happiest nations in the world. It suffices to consider how Sweden’s buoyant happiness score is being exhibited by the UN experts to flag how two key elements of happiness – strong social support networks and perceived transparency of authorities – proved particularly instrumental through the pandemic.
Figure 5: Changes in Real GDP (PPP) per capita and World Happiness Rankings.
Another interesting observation is Iceland. Similar to New Zealand, Iceland is a small island state with a female prime minister. Both islands routinely top a wide variety of quality-of-life rankings. Iceland in particular was acknowledged as the best country in the world for gender equality by the World Economic Forum and for more than ten years in a row, as the most peaceful by the Institute for Economics and Peace. In 2020, as a direct result of the pandemic, Iceland registered the heaviest drop in real GDP per capita. However, with an extraordinary collective sense of trust and civic responsibility, it is no surprise that Iceland did not only keep up its happiness momentum, it actually accelerated it. Suffice to point out that the Icelandic government guaranteed ‘full salary’ settlements to anyone suspected of being infected, encouraging Icelanders to stay at home when needed, without any fear of possible loss of income.

In direct contrast, Norwegians kept on slipping in their happiness ranking over the years (from third place in 2019 they went down to fifth in 2020). Surprisingly enough, one of the biggest burdens that is currently weighing so much on the Norwegians’ conscience is the environment. Energy consumption per capita is very high in Norway partly due to a legacy of inexpensive energy that international energy markets have now made a thing of the past. As a consequence, the Norwegian government has been trying to commit its country to more energy efficiency policies by tightening up conservation standards for new buildings and introducing new taxes on electricity consumption and carbon dioxide emissions. In the meantime, it continues to rely heavily on the purchase of ‘Pollution Quotas’ and the Norwegian people themselves are very critical that the government is attempting to buy its way out of the problem rather than solve it.

Ultimately, what the World Happiness Index teaches us is that the Easterlin Paradox can be explained because happiness does not only depend on material wealth. Income does influence a person’s happiness up to a point, but more happiness could be obtained if people were to correctly calculate the effect of ‘Hedonic Adaptation’ in their lives and in so doing, appreciate in more effective ways, other forms of wealth, including social wealth (relationships and support), time wealth (freedom to pursue one’s passion, perspective on life and spirituality) and health wealth (physical and mental). Projection bias as applied to income and resulting consumption patterns, implies that people, very often, predict a slow rate of adaptation to any new product and/or experience, when in fact adaptation occurs much more promptly than expected, leading people to exaggerate and overspend on material wealth at the expense of the other more ‘utilitarian’ forms of wealth. Baucells and Sarin (2012) specifically show how projection bias diverts resources from utilitarian goods to adaptive goods even with rational planning. Utilitarian goods include food, shelter, sleep, friendship, spiritual activities, etc. Adaptive goods are fancy cars, luxury houses, expensive hotels, even addictive goods like alcohol, drugs, and lottery tickets. Observably, the global spread of the pandemic altered, albeit in a haphazard manner, this quest for (what kind of) wealth. Richard Easterlin argues that his paradox underlies in this very particular nature of wealth ‘mis-judgments’. Money can buy happiness, but it needs to be supported with some good, optimal planning, from which most people are simply alienated.

**Conclusion**

How can authorities encourage a healthier awareness of these important elements of ‘Hedonic Adaptation’, ‘Social Comparison’ and ‘Projection Bias’? How do we incorporate them in a systematic manner into our policymaking ecosystem? How can we effectively
use Beyond GDP metrics to make better policies for better lives rather than merely keep them hanging there on a moral high ground?

Possibly, there are three (not necessarily competing) ways in which the concept of Beyond GDP can be incorporated into policy making:

1. The first way would be an understanding of ‘Happiness Policy’ in line with the ideas of Richard Layard, the British economist, Professor at the London School of Economics and a Labour member of the House of Lords who advocates for the insights of the Economics of Happiness to be incorporated directly into Public Policy (Layard 1980; 2006; 2011; 2020). Layard has advocated a re-prioritisation of public policy so as to help increase the happiness of the population, not merely economic growth. Forerunners like the UK and New Zealand have been proposing this type of public administration guided by ‘Wellness Budgets’ and a new approach at ‘Cost-Benefit Analysis’ where policy makers are encouraged to assess the impact of their policy decisions on a scientifically-driven framework that applies well-being indicators (such as social cohesion, equity, sustainability) to monetise the full social costs and full social benefits of policies (Dalziel 2019).

2. A second way would be to move completely away from this ‘Happiness Policy’ making approach, that critics classify as a ‘Benevolent Dictator’ approach towards a more ‘Bottom-Up’ approach. Advocates of this approach retain that any results secured from happiness research should act as inputs into a much wider democratic political process. Consequently, Kahneman et al. (2004) suggest that the Beyond GDP metrics should merely help to inform everyone about the changes in well-being over time, between groups and nations. More effective, user-friendly and continuous information creates a sensible awareness of the need for happiness decision-making amongst the various stakeholders in society. People are triggered to demand such measures, making out of ‘Happiness Policy’ an integral part of governance from the grassroots level (Frey 2020).

3. Alternatively, a more pragmatic approach to these two extremes exists. A third way is to use Beyond GDP metrics in each ministry within government as the primary ‘screening tool’ for policymaking. In essence, this could serve as a standard, yet non-invasive tool to ensure that decisions at ministerial level are always working in tandem with the broader ‘Happiness Agenda’ of the country. This practice has been endorsed and perfected in Bhutan over the last 40 years. Bhutan’s policymaking is indeed driven by Gross National Happiness (GNH) and not GDP. Bhutan’s GNH screening tool is a composite parameter that encompasses more than 50 pointers, organised under four pillars: sustainable and equitable social development, preservation and promotion of culture, conservation of the environment, and good governance (see Figure 6).

This ‘Screening Tool’ Approach requires a kind of matrix structure where all the ministries and their projects are transformed into active hubs that can instantly be accessed and assessed to ensure a seamless inclusion of Happiness at all levels of governance within the matrix. In practice, any project in Bhutan cannot be implemented without a prior assessment by a GNH Commission using a specific GNH screening tool (Balasubramanian & Cashin 2019).
Figure 6: Pillars of the GNH index - Centre for Bhutan Studies; Columbia University (2016).

Happiness Economics has been established over the past few years at the intersection of economics, psychology, sociology, and political science. This new academic science of happiness forms part of a coordinated network of international initiatives which may truly bring about a real paradigm shift in public policy. If politicians really want to affect the outcomes that people seek, they need to keep on looking beyond mere income levels and incorporate, in more progressive ways, other types of well-being measurements in decision-making at all levels. Never before has a ‘post-material’ model, a full re-evaluation of progress, the fostering of a different kind of economy, well beyond GDP, seemed so attainable.
References


