

## ILC Greengross Lecture 2024: When age meets behaviour – wealth, health and happiness

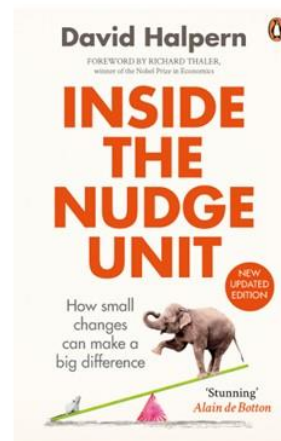
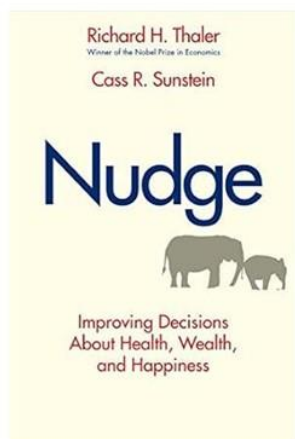
*Delivered on Monday 4 November 2024 by Professor David Halpern, President Emeritus, Behavioural Insights Team in memory of Baroness Sally Greengross, the founder of the International Longevity Centre - UK*

Thank you all for the warm welcome. It's a pleasure to see people from across the political spectrum engaging with these issues. I hope to be a little provocative tonight, but in a way that leads to agreement on both sides of the House about where we could take more radical action.

Tonight's topic is health, wealth, and happiness. For those familiar with Richard Thaler's 2008 book *Nudge*, it may be sitting on your shelf with the subtitle "Improving Decisions about Health, Wealth, and Happiness." Although the book didn't cover all these themes in great depth, I thought we might revisit them as a framework for discussion. I apologise for not including housing tonight, but perhaps that's a topic for another time.

### Health, wealth, and happiness...

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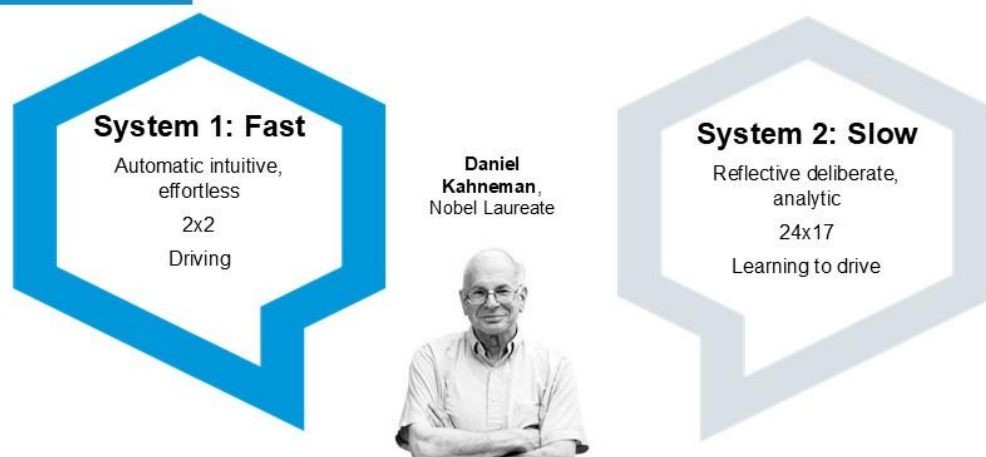
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To provide a quick overview, I'll be touching on the behavioural insights we've gathered since 2010 when we founded the Behavioural Insights Team, or "Nudge Unit," within the Cabinet Office. Before that, I worked in Tony Blair's strategy unit, but since then, our work has evolved to focus on applying behavioural science to policy and practice, growing from a small team in the UK Cabinet Office into a global leader in behavioural insights with a presence on nearly every continent.

As some may know, my background involves the study of psychology, and much of our work is grounded in principles from psychologists like Daniel Kahneman. One of the fundamental concepts is that people often make decisions using fast, automatic, or "system 1" thinking, where decisions are influenced more by

environment than by careful consideration. In contrast, reflective “system 2” thinking requires greater effort and concentration, such as when learning a new skill. Kahneman noted that environmental effects on behaviour are often stronger than we realise. This is especially relevant when it comes to public policy, where changing environments can have profound effects on behaviour, particularly in areas like health.

## The two systems driving behaviour



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## Health

The classic example in psychology is the *fundamental attribution error*. Imagine watching a game show like *University Challenge*. People often assume the host, who asks all the questions, is more knowledgeable than they really are, and they might think the contestants, who are struggling to answer, appear less intelligent. But in reality, the host has the answers right in front of them. This illustrates how we focus on the person and overlook the context, underestimating external factors that influence behaviour.

This concept is highly relevant to policymaking, especially when it comes to initiatives aimed at improving public health. Recognising the importance of context—rather than just blaming individuals—can lead to more effective, compassionate policies.

As we'll see, we tend to overlook some of these factors. When I was younger and wrote a novel—which, perhaps for the best, never got published. It was called *The Last Generation*, set in a futuristic society where two different communities coexisted. One group had access to all the wealth and technology in the world, allowing them to live almost indefinitely. They weren't immortal, but they could be patched up and keep going for centuries. Of course, this scenario came with certain consequences; for instance, the state would have to regulate fertility, as

having children in a world where people live for thousands of years wouldn't be sustainable.

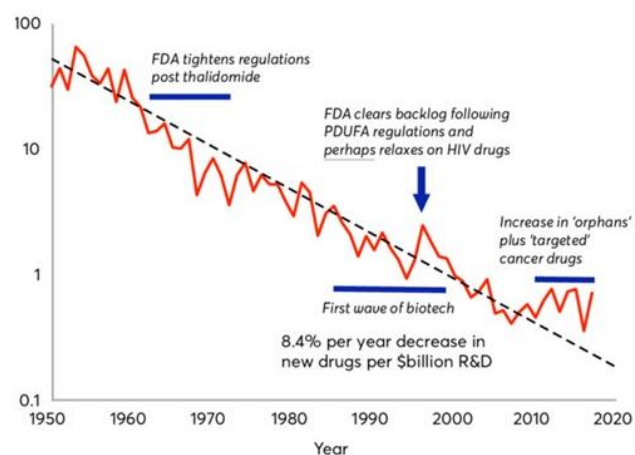
Alongside this, there was another group leading a more traditional life cycle, with families and a more typical lifespan. These two communities lived side by side. Some of the current discussions around longevity and health technology seem to hint at this kind of future—perhaps an accelerated compression of the 21st century where these choices could become a reality.

But before we get too carried away, let's focus on where we're at right now. Listening to Venki Ramakrishnan, who's deeply engaged in questions of longevity and health, I was struck by his insights. A few years ago, he discussed the state of research on why we age and die. The bad news, he noted, is that despite significant investment, we haven't cracked the code yet. Some speculative and, frankly, odd studies, like "vampire blood" using young mice's blood to rejuvenate older mice, have shown limited effects, but it's still far from practical application.

When I commented on how disappointing it was, his response really stuck with me. He said, "Those issues—getting people to quit smoking, for example—aren't scientific questions, they're social and policy questions." But why aren't they considered scientific? Why shouldn't we apply scientific methods to large-scale interventions that could improve public health?

One of the challenges is what's known as Eroom's Law (Moore's Law in reverse). While Moore's Law shows exponential growth in computing power, Eroom's Law illustrates that in biomedicine, it's becoming increasingly expensive to make breakthroughs. For the past 50-70 years, the cost of discovering new drugs has doubled every 7-9 years. Although some recent developments may signal a shift, the reality remains that medical advancements are extraordinarily costly.

## Eroom's law



In contrast, we compiled some data for a cross-party parliamentary group, estimating the years of life lost on average due to major behavioural and lifestyle factors in the UK. The numbers are quite significant. On average, people in Britain lose between 5 to 10 years of life due to these preventable factors, with some individuals losing 20 years or more.

## 10 more years of life by changing behaviours?

Risk	Estimated years of lost HLE across UK population
Diet (inc indirect effects)	2 – 4
Stress, purpose & relationships	0.5 – 2.5
Smoking	1 – 2
Alcohol	0.5 – 1
Physical inactivity	0.25 – 0.5
Air pollution	0.25 – 0.5
<b>Total</b>	<b>4.5 – 10.5</b>

Rough estimates for HLE achievable from addressing the primary known behavioural and environmental causes (Source: UK data, Behavioural Insights Team estimates). Published by the APPG for Longevity in 'The Health of the Nation. A Strategy for Healthier Longer Lives', February 2020, <https://appg-longevity.org/health-of-the-nation>

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So, what can be done? Let's start with diet. There's some excellent research by Henry Dimbleby on how dietary interventions could improve public health. Take the sugar levy, for example. My team was involved in implementing this policy, which has led to more than a halving of sugar in British soft drinks. Interestingly, sales have increased, showing that it's possible to reformulate products for better health without harming industry. The goal isn't for everyone to scrutinise food labels obsessively but rather to remove excess sugar and salt from common products so that healthier options become the default choice.

Another example is smoking. In 2011, we took the controversial step of making e-cigarettes available as an alternative to traditional smoking. Although contentious, back-of-the-envelope estimates suggest that e-cigarettes have saved about a million life-years in Britain. The idea was to make e-cigarettes accessible so doctors could prescribe them, as they are 60% more effective than nicotine replacement therapies. However, we ended up in a situation where doctors couldn't prescribe them, yet teenagers could easily access them. This wasn't the intended outcome, and it's led to a great deal of confusion, with many people now mistakenly believing e-cigarettes are as harmful as smoking.

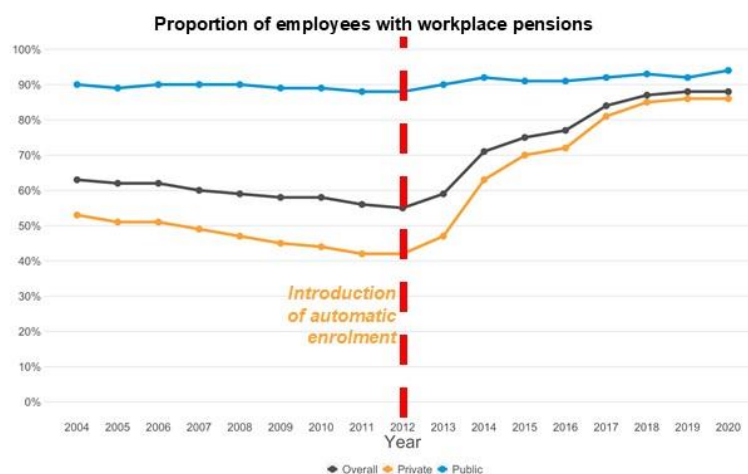
We're in a similar situation with alcohol. Reformulation could make it easier for people to consume alcohol responsibly. Instead of promoting large quantities, like three-litre bottles of Frosty Jack's, we could encourage smaller, higher-quality options.

In essence, we have the tools and knowledge to make healthier choices the norm rather than the exception. We should be using these approaches more confidently and systematically to reset societal norms around health and well-being.

## Wealth

Moving on to wealth, auto-enrolment in pensions is one of the poster-child successes of behavioural science. Previously, young people in the UK were criticised for not saving, but the introduction of auto-enrolment flipped the default: instead of opting in to save, you had to opt out. Today, over 90% of eligible workers are saving into a pension. Interestingly, when young people are asked, the vast majority support the idea of being auto-enrolled.

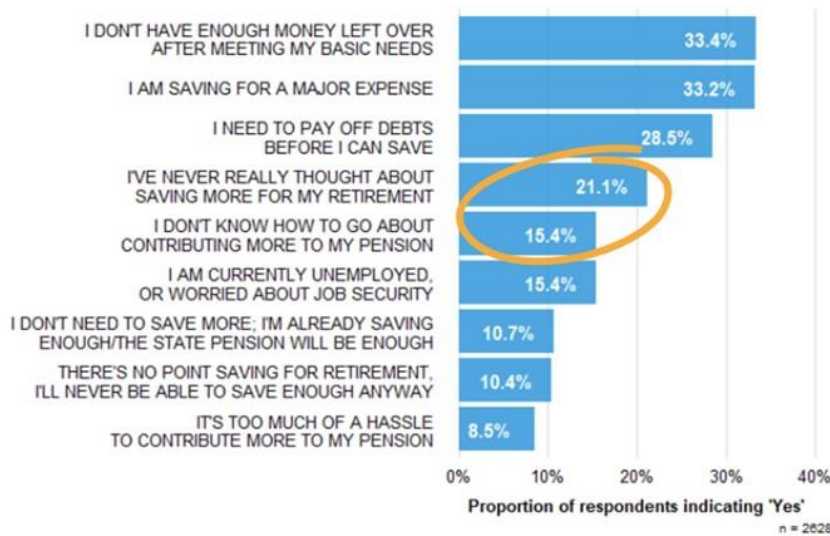
### Pensions and saving



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But there's more we could do. For instance, we could implement auto-escalation, where people's contributions increase automatically when they receive a pay rise, ensuring that savings keep pace with income. There's also a strong case for "rainy day" savings accounts, where people build a small emergency fund before contributing to a long-term pension. More than 10 million people in the UK don't have £100 saved for emergencies, and many would benefit from having £1,000 in reserve.

**Proportion citing each factor as a barrier to saving more for retirement**



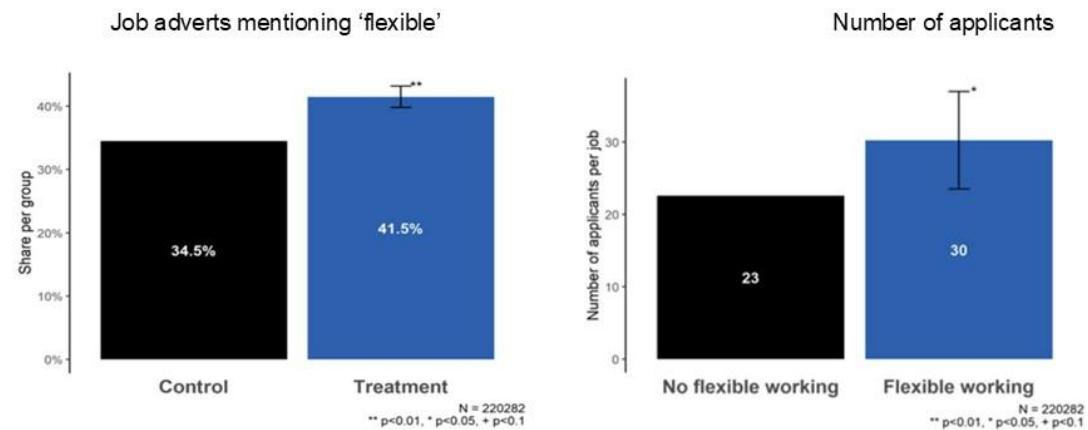
There are other aspects of supporting people to improve their financial wellbeing, particularly concerning the rising economic inactivity in the UK. This issue is especially significant for those who seem to drop out of the labour market, and it raises questions about what we can do to address it. Are there solutions we could implement, such as those explored a few years ago using one of the world's largest job platforms?

One approach involved nudging employers. When we asked heads of HR whether most jobs could be done flexibly, many acknowledged that the majority could be, whether through compressed hours, part-time work, or other flexible arrangements. Yet, very few jobs are advertised that way.

Why does this matter? When people leave the labour market, a key reason is often the lack of flexible working options. They may have caring responsibilities or simply prefer not to work full-time for various reasons. So, in our study, we introduced a prompt for employers. When they were posting job adverts, they were asked to consider whether the role could be offered with flexible working options. If they indicated that it could, this flexibility was highlighted in the advert.

This simple nudge led to a 20% increase in the number of jobs advertised as flexible. In turn, those flexible job postings attracted 30% more applicants. This is a clear example of how we can use behavioural insights to stimulate the labour market and improve employment opportunities.

## Flexible working: prompting employers led to 20% more jobs advertised as flexible - and 30% more applicants...



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There's a broader issue here as well: what drives economic inactivity is often the quality of the work itself. This ties into what we call the "shrouding effect." It's challenging to determine whether a company is a good employer, whether your boss is supportive or difficult, and how these factors impact your wellbeing. These aspects are crucial to improving people's experiences in the workforce and encouraging them to remain engaged in the labour market.

### Happiness and Wellbeing

Turning to happiness and wellbeing, we've learned a lot over the years. When I was working for David Cameron on behavioural insights, he was particularly interested in well-being. No other leader had really wanted to discuss it before. With Tony Blair, for instance, wellbeing wasn't something that was on the agenda. Inside Number 10, there was almost an unspoken rule: just as we "don't do religion," we "can't do happiness." During austerity, wellbeing felt like an even more difficult topic to address.

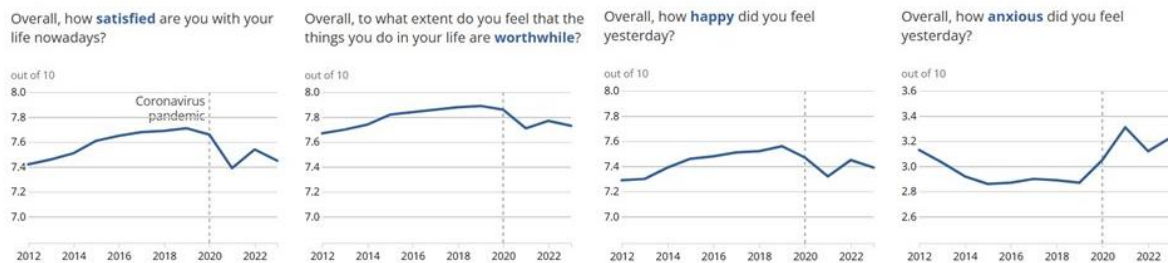
But if we ask ourselves, what is the point of policy if not to improve people's lives? It's a fundamental question. There's a thought-provoking paper from around that time by Elizabeth Dunn et al titled, *If Money Doesn't Make You Happy, Then You Probably Aren't Spending It Right*. It asks, if money alone doesn't bring happiness, then how should we be spending our resources, both individually and collectively, to achieve the best outcomes?

This line of thinking led to the development of a focus on well-being, which has matured significantly over the years. Recently, I revisited some well-being metrics that I hadn't looked at in a while. Unfortunately, discussions on well-being have

somewhat faded from the public policy debate, especially after the closure of the What Works Centre for Wellbeing.

A classic question in this field is whether well-being can be measured. Many doubted it for a long time, but the answer is now clear: yes, we can measure it. We can ask people questions like, "Generally speaking, thinking about your life as a whole, how satisfied are you on a scale of one to ten?" or more situationally, "How happy have you been over the past few days?" and "How anxious have you felt?" These types of questions became the basis for the Office for National Statistics (ONS) well-being measures, which were implemented in 2012.

## Well-being: can it be measured? (UK)



There are four key measures we use to assess well-being. The first is an evaluative measure, asking people how satisfied they feel about their lives overall. This provides a broad assessment of life satisfaction. The second is a measure of life's worth—whether people feel the things they do in life are worthwhile. Then, we have two more emotionally-focused measures: how happy people felt yesterday, and how anxious they felt.

It's possible, of course, to feel multiple emotions simultaneously. For instance, when someone gets married, they may feel both very happy and quite anxious at the same time. The data shows that these well-being measures have fluctuated over the years since their introduction, providing insights into the nation's emotional state over time.

The last measure is what we call the "[eudaimonic](#)" measure. This refers to assessing whether people feel that what they do in life is worthwhile. For instance, when caring for someone, especially if they are unwell, you may not feel happy in the traditional sense, but you do feel that what you are doing is meaningful. The same goes for helping children with their homework—most parents wouldn't describe it as a source of happiness, but they do it because it feels important and worthwhile. We believe we can measure this type of well-being quite effectively, and it provides us with valuable detail.



Interestingly, from 2012 onwards, most of these well-being measures have shown an upward trend. This was surprising to many people, as they assumed well-being would be declining. One reason for this upward trend is that well-being isn't solely determined by what happens in Parliament or through government policies. Relationships, social connections, and other personal factors play a substantial role in how people feel.

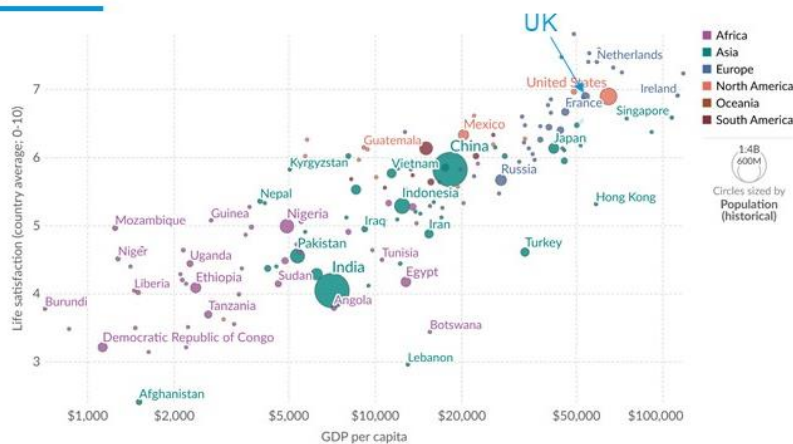
However, these measures are also sensitive to major events. For example, during COVID-19, we saw significant fluctuations, with levels of anxiety spiking and overall well-being dropping. Thankfully, as the situation improved, so did well-being levels.

It's also worth mentioning that, generally speaking, life satisfaction does tend to rise with income, both across and within countries, as well as over time. This finding may seem obvious, but it was the subject of much debate, particularly due to the so-called "[Easterlin Paradox](#)" found in US data. This paradox suggested that, despite the US becoming wealthier over time, average happiness did not increase.

One reason for this discrepancy is that wealth distribution hasn't been uniform, so a significant portion of the population isn't actually experiencing an improvement in their standard of living. There are also issues with measurement errors, but without going into too much detail, the key takeaway is that, overall, wealthier countries tend to report higher life satisfaction.

For example, if we look at the UK, we're relatively wealthy and, in general, quite happy. Although that may not always be the narrative we hear, especially around Westminster, the data shows that, as a country, we're doing reasonably well in terms of life satisfaction.

## **Life satisfaction rises with income - across countries, within country, and over time**

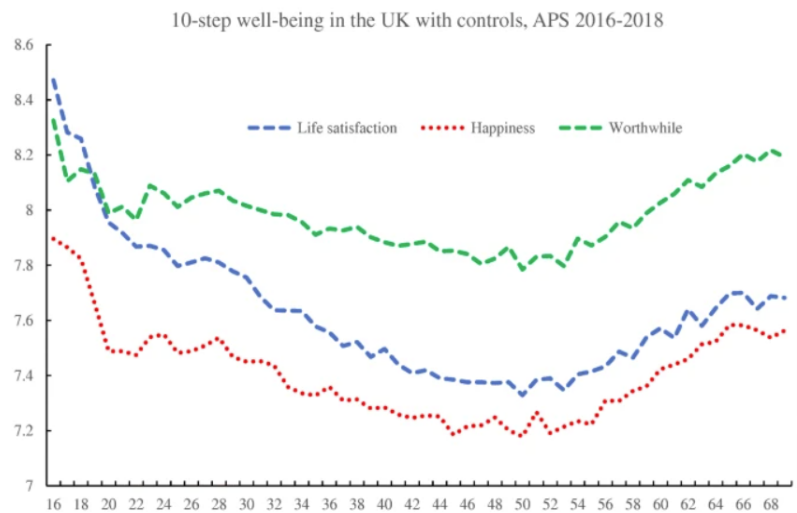


Data source: World Happiness Report (2012-2024); World Bank (2023)  
Note: GDP per capita is expressed in international-\$ at 2017 prices.  
OurWorldInData.org/happiness-and-life-satisfaction | CC BY

If you look at changes over time, most countries are becoming both richer and happier. While there are some exceptions and a few nations where well-being levels have dropped, the general trend is positive, with wealth and happiness rising together.

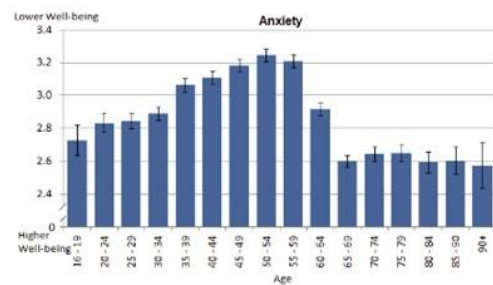
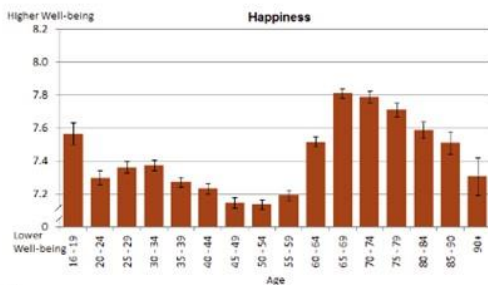
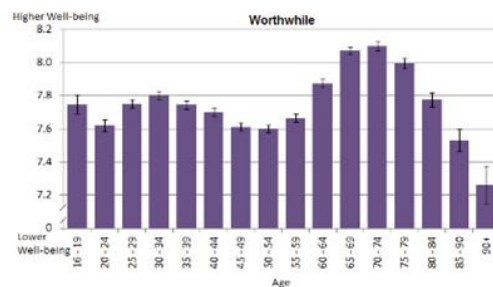
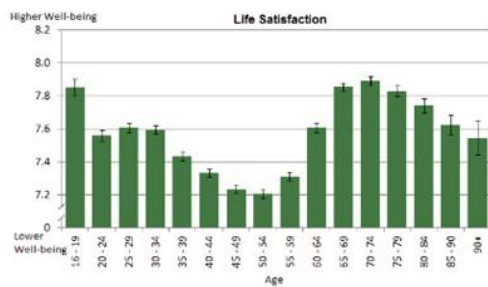
This raises further questions about what else drives well-being. One key topic is the relationship between well-being and age. There's been extensive discussion around how well-being fluctuates across the life course, which leads us to consider the impact of ageing on overall life satisfaction.

Many of you may know about the [U-shaped curve](#) in happiness, where wellbeing is lowest around middle age, then rises as people get older. Health issues, job insecurity, and unemployment are all detrimental to wellbeing, whereas social support – simply having someone to turn to in times of trouble – is an incredibly powerful predictor of happiness.



For many, happiness peaks shortly after retirement, provided they are in good health.

### UK



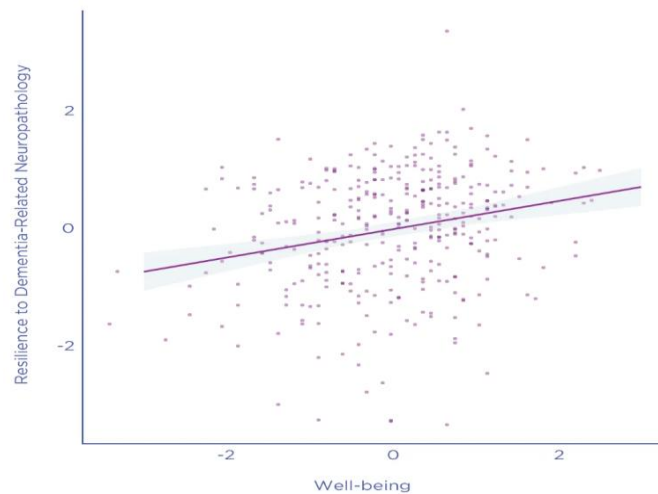
ONS, 2021  
<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeingwhatagepersonswellbeingthehighest#:~:text=those%20aged%2090%20and%20over,those%20aged%2065%20and%20over>

Looking at these various data points, one of the most significant drivers of well-being is how people gain perspective as they grow older. When you're younger,

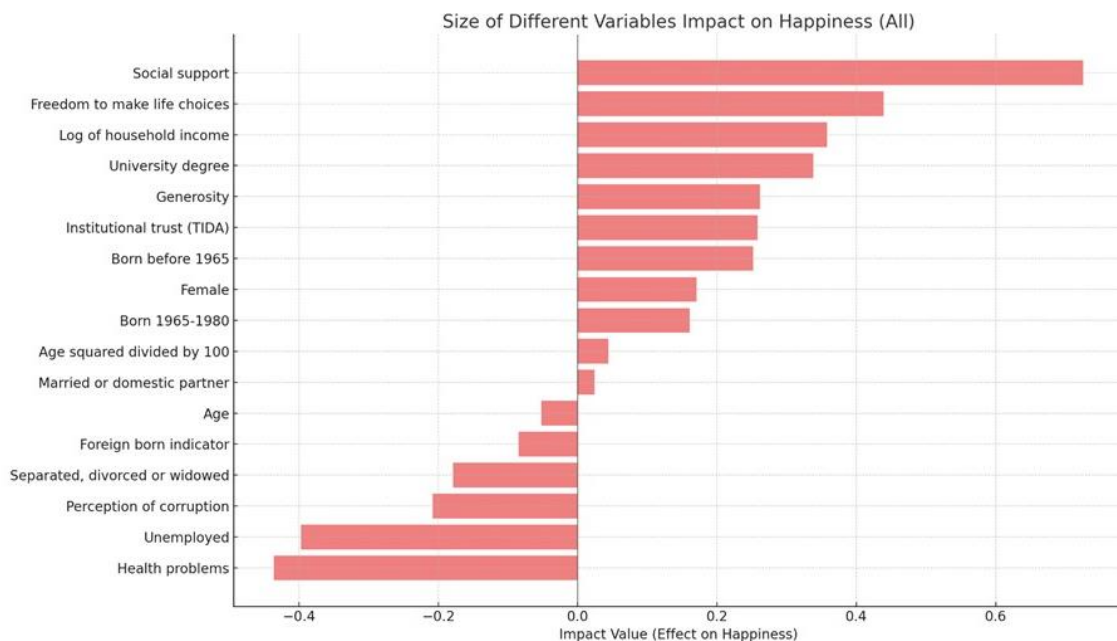
everything can feel intense and overwhelming. With age, however, people tend to gain perspective, which is reflected in the data on well-being.

Now, let's consider the fascinating work on the causal relationship between happiness and health outcomes, particularly longevity and dementia. Research has long shown that happiness is causally predictive of lifespan. One classic study involved a cohort of nuns. At around the age of 18, they would write letters reflecting on their outlook on life and personality. Decades later, researchers analysed these letters and found that the happiest quartile lived, on average, 10 years longer than others. So, cheer up, everyone—happiness genuinely appears to extend life!

This concept has recently been revisited in studies on dementia, where evidence increasingly shows that a positive outlook can act as a protective factor against cognitive decline.



Data from the UK panel surveys highlight some expected findings about factors that negatively impact subjective well-being. Unsurprisingly, health problems are high on the list. People tend to be happiest around retirement age if they are in good health. Employment, specifically unemployment, is also very damaging to well-being. Interestingly, studies suggest that we don't need to work full-time to



achieve the well-being benefits associated with employment. Around 8 hours per week appears to be sufficient to gain these benefits—don't tell Rachel Reeves!

Other factors that impact well-being include relationship issues. For example, separation tends to have a negative effect. But moving on to more positive influences, social support is one of the strongest predictors of well-being. This is typically measured with a question like, "If you had a problem, is there someone who would help you?" The answer to this simple question is a powerful predictor of many outcomes, including physical health. Studies even show that those who answer "yes" are less likely to catch a common cold if exposed to the virus—a remarkable finding from lab research.

Social relationships are incredibly powerful for well-being, yet we often struggle to discuss them in policy terms. What does social support mean in practical terms, and how can we foster it?

This brings us back to a broader question: how should we spend our money or resources, both individually and collectively? With Christmas approaching, it's worth considering the evidence that spending on experiences generally makes people happier than spending on material goods. Outdoor activities, recreation, travel, and entertainment tend to enhance happiness, while electronic gadgets like a new iPhone tend to have a more fleeting impact.

Interestingly, people often misjudge this. Behavioural research shows that when you ask people beforehand what will make them happier—material goods or experiences—they often choose the material items. However, when you follow up, they report greater happiness from experiences than from things. And, of course, memories of experiences tend to improve over time. For example, you may remember a holiday fondly, even if it rained or the kids were a bit difficult, as these small irritations are often "airbrushed" out of memory.

### **Did you feel your money will be/was well spent?**

(1 = not at all; 7 = very much)

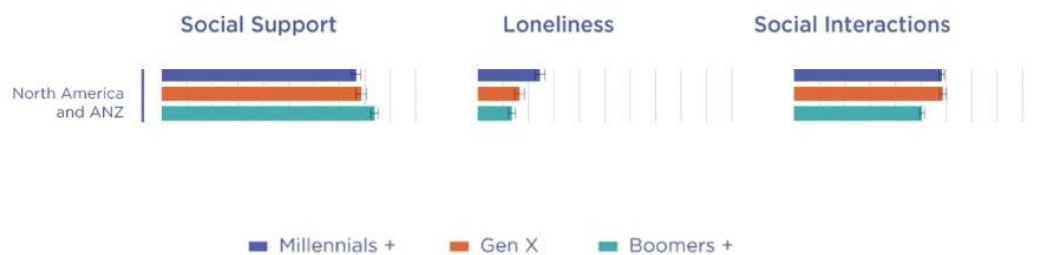


Source: The Journal of Positive Psychology

The Wall Street Journal

Structurally, there's also a generational aspect to well-being. Data from the World Happiness Report show some differences across generations. For instance, "Baby Boomers" tend to have a certain level of social interaction, but if you look at Millennials, they have more social interaction than Boomers. However, Millennials also report higher levels of loneliness. This generational gap is intriguing and suggests that despite having more social opportunities, younger generations may be missing something deeper in terms of meaningful connection.

### **Anglo-saxons cohorts are getting lonelier... (despite more frequent interaction!)**



Interestingly, the experience of the pandemic reminded us of the importance of social connections. For a brief period, we were more engaged with one another and willing to help out, demonstrating that social ties are an essential component of wellbeing.

Interestingly, COVID, in some ways, made us kinder. Across the world, and certainly in the UK, social engagement increased during the pandemic. Levels of social trust, interaction with neighbours, and community support reached a 40-year high. Despite the challenges, people found meaningful connections with each other and supported one another.



## Behavioural Insights and Social Choice

So, how do we apply behavioural insights to enable better choices? One issue I've become particularly interested in is the concept of "shrouding" in the economy, where essential information is hidden or difficult to understand. For instance, a simple example relates to social media—will it make me happy? What should I post? What are my peers posting? Is the market truly driven by quality and value, or is something else at play?



A few years ago, the Royal Society of Public Health conducted an insightful study on social media's effects, particularly among 15-year-olds. They examined different platforms and how each one influenced young people's experiences. Spoiler alert: none of them performed well in certain areas. For instance, they all encourage endless scrolling and can keep users up at night, which is obviously not beneficial. However, the platforms differ significantly in other respects. YouTube, for instance, doesn't (or didn't) seem to affect a young person's self-esteem as much, whereas Instagram was particularly damaging for 15-year-old girls in this regard.

Now, imagine if this information were used to drive positive change in these platforms. Companies like Instagram could be encouraged to reformulate their product in a way that genuinely supports young people's well-being. This would be similar to the approach taken with food reformulation to improve health outcomes. Just as we strive to improve the nutritional quality of food, we should aim to develop products and services that enhance our quality of life.

In many areas, however, markets are opaque; people can't see the key aspects that will affect their quality of life. As a result, they may make choices that don't ultimately serve them well. This is a critical frontier—how to empower people to make better, more informed choices. A simple example is how TripAdvisor helps us choose a hotel. But where's the equivalent for more profound life choices, like selecting a piano tutor for your child? This is a decision with far-reaching impacts on quality of life, yet we lack a comparable public resource. We estimate that the overall impact of de-shrouding on the economy to be between 0.23-1.03% of GDP.

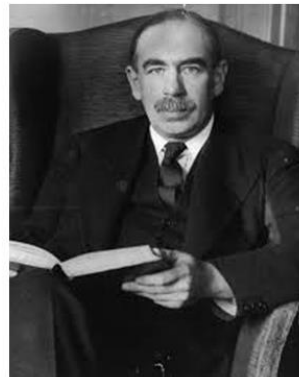
In conclusion, I hope I've sparked some thoughts on the potential to improve our quality of life, ageing, and the wisdom of our choices. We have so many opportunities that we haven't yet fully explored. Ronald Reagan once joked that he wouldn't "make age an issue of this campaign" nor "exploit, for political purposes, my opponents' youth and inexperience." There's something similar to

consider here about the wisdom that can come with age. As people get older, they do seem to become wiser—a pattern we see clearly in the well-being literature. How can we bring that wisdom forward to help people make better choices at all ages?

As we near the end, I'm reminded of a fantastic letter John Maynard Keynes wrote in 1930, titled *Economic Possibilities for Our Grandchildren*. In it, he reflected on what life might be like for future generations—essentially, people like us today. He envisioned a time when, thanks to compounded wealth, people would have real choices in how they spent their time. He was concerned, though, that people in the future might fall into the same habits as the wealthy of his own day, sitting around in clubs and doing very little.

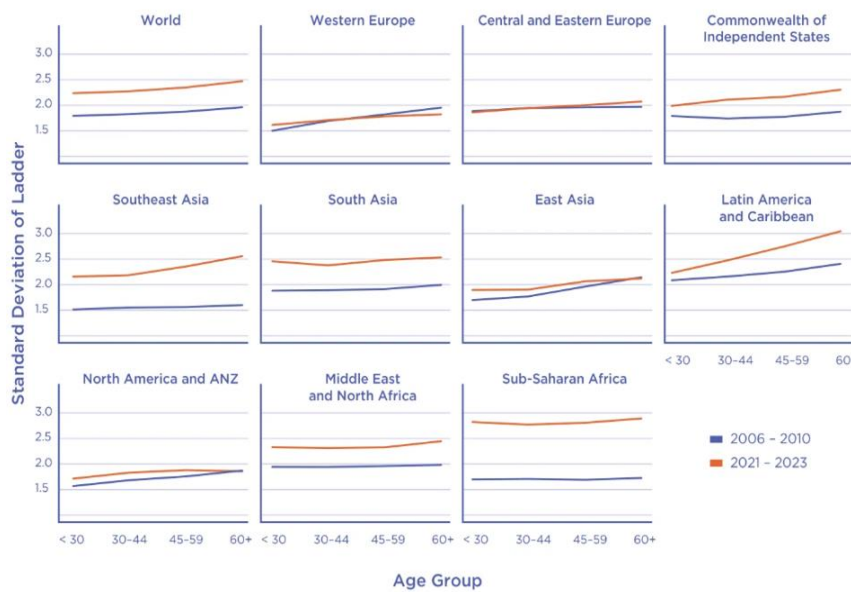
### **Keynes' letter 'for our grandchildren' (1930)**

...for the first time since his creation man will be faced with his real, his permanent problem-how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well.



Clearly, that hasn't quite happened; we're all very busy, working and engaging in countless activities. However, the underlying pressure remains—how we use our time and make choices each day. How many hours do we spend watching TV? Or even deciding what to watch? The average Briton now spends several hours a week just deciding what to watch, which has even become a common source of domestic arguments.

Is that really the best use of our time? There are a few things to think about here. One is that global inequalities in happiness and well-being have increased over the past decade, though less so in Western Europe.



**Inequalities in happiness have increased across the world - especially in older age groups**

This has become especially pronounced in later life. Just as IQ differences can widen with age, so do disparities in well-being. People who actively engage in life tend to stay sharp, while those who don't can lose mental acuity. This disparity is increasingly evident, particularly as people age.

One of the big questions now for those concerned with these behavioural issues is how we can move beyond "nudging" towards something more substantial. Nudging—setting up default choices for people—works well in some areas, like encouraging savings, where collective decisions make sense. But in many areas, what we need is something known as "boosting." Boosting aims to cue people's awareness so they actively make their own decisions rather than passively following a default.

For instance, think about when you pick up your phone to check something and, 10 or 20 minutes later, realise you've been scrolling without purpose. This is a testament to the genius—and danger—of attentional capture in the digital world. Boosting, in this case, would be a way to help you consciously decide how to use your phone. There are apps, for example, that introduce a short delay when you try to open social media, prompting you to pause and reflect. One such app has a three-second delay, during which it tells you how much time you spent on that app yesterday and suggests you take a moment to breathe. Studies show that using this kind of app can halve social media use within six weeks.

This isn't just a nudge—it's a boost, strengthening people's ability to make active choices in key moments. This is something we should integrate more broadly when we think about well-being.

In conclusion, we're not quite at a point where society is fully split between those who use technology to extend their lives and those who don't. But it's not far off.



We still have to consider how we want to spend our time. My hope is that this government will take a more confident approach in addressing some of the primary drivers of ill health. When the physician John Snow, during a cholera outbreak in 1842, identified the contaminated water pump in London, he didn't try to medicate everyone; he tackled the source directly. In a similar way, we should address the root causes of many of our health, well-being, and financial challenges.

We should also be bold enough to discuss well-being openly. We ought to consider how we use our time and wealth wisely, both individually and collectively. This is a perfectly legitimate topic, and it deserves a place on the policy agenda. It's time to bring well-being back into the conversation and keep pushing forward.

**Ends**