

# The New Optimists

## Scientists View Tomorrow's World & *What It Means To Us*

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# Cognitive science and behavioural economics – showing us keys to happiness

Gordon Brown, Neil Stewart and Alex Wood

**A**s cognitive psychologists working at the interface between economics and the psychology of decision-making and choice, we see many reasons for optimism about the future. An increasing understanding of how and why we choose, behave and feel as we do is already improving the well-being of individuals and society.

In previous centuries, mere survival was the focus – enough resources to ensure material security had to be harvested, and many premature deaths occurred due to diseases that were then incurable. However, in a growing number of societies most material needs are now met, and the key causes of death are now not linked to poverty or infectious disease, but rather have behavioural causes – smoking, lack of exercise and poor nutritional choices are growing contributors to premature death. Thus in the twenty-first

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century, the focus must shift from mastery of the environment to mastery of our cognition.

Psychology and behavioural economics are uniquely well placed to contribute to the behavioural change necessary to reduce waste, effect climate change and increase human well-being and health. Here we describe how, by working with rather than against the grain of human psychology, policy-makers can achieve advances in social, health and economic domains. Specifically, we focus on how research from psychology and behavioural economics can inform both national policy and individual behaviour.

Regarding national policy, a key contribution of recent research has been to show that the pursuit of material wealth will not lead to significant further increases in happiness and well-being. The very poorest people in a rich society such as ours do become happier when they get more money, perhaps as their basic needs are not being fulfilled. However, above this level (about £10,000 per year), money typically explains only around 1 or 2% of individual differences in happiness (this can be contrasted with the 17.5% of happiness variation explicable by individual differences in gratitude – whether a person habitually notices and appreciates the positive in the world).

The same is true of nations. Over 40 years ago, Richard Easterlin noted that increases in national wealth over many decades in the more wealthy countries had not been accompanied by equivalent increases in the average well-being reported by the populations of those countries. The lack of a clear relationship between wealth and well-being has led economists such as Richard Layard and psychologists such as Ed Diener to propose that, instead of wealth, some form of national well-being index should be the focus of social policy.

Although people's happiness depends little on how much they earn, we have found that their happiness is more strongly related to how their income ranks within their particular communities and workplaces. Thus, a person earning £30,000 in an industry where most people earn less than this amount will, other things being equal, be happier than someone earning the same amount but in another industry where most people earn

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more. However, a person whose income rose from £30,000 to £40,000 would be no happier if everyone else's income improved by an equal amount (because everyone's relative ranked position would remain unchanged). This 'relative comparison' approach may explain why people do not become happier as societies become richer.

Such findings suggest that if governments aim to increase happiness, they should focus less on improving everyone's income and instead place greater emphasis on goals such as reducing inequality and unemployment. Inequality is related to a variety of social ills and goods (rates of crime, teenage pregnancy etc – the recent book by Richard Wilkinson and Kate Pickett provides a persuasive summary). The effects are large, can affect all segments of society and do not depend on the overall wealth of the society.

We suggest that if people knew of the importance of the effects of inequality in issues that concern them, they would demand more emphasis from politicians on reducing inequality. Similarly, becoming unemployed is devastating to well-being, and in addition to lost income, unemployment erodes a person's identity and sense of self-worth. Improving national happiness may be better achieved by a greater emphasis on preventing unemployment rather than on increasing everyone's income.

In attempting to effect change at the level of individual behaviour, an important principle is to work 'with the grain' of human limitations and preferences, rather than to impose solutions that are at odds with how people naturally make decisions. To illustrate this, consider several examples of how concepts arising from psychology and economics may be utilised by people planning behavioural interventions, or trying to change their own behaviour.

Daniel Kahneman and Amos Tversky provided evidence for a phenomenon known as 'loss aversion'. For example, it is psychologically more painful to lose £100 than it is psychologically pleasurable to gain £100. Such effects generalise to most aspects of life, with almost any possession (eg a coffee mug, time, clean air, an investment) being worth more psychologically when it is already in an individual's possession than

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when it is not. Such findings are often used intuitively by take-away shop owners, who give free delivery or a 10% reduction for collection. This 10% 'gain' will seem psychologically smaller than the 'loss' of a 10% delivery charge, even though the deal is equivalent. At more socially meaningful levels, people would presumably be more willing to accept a policy framed as a tax discount for recycling, rather than a fine for excess rubbish collection.

Another finding, 'anchoring', is that when people are making financial decisions they 'latch on' to suggested figures, even when such figures are largely arbitrary. For example, one of us (NS) gave hypothetical credit card bills to people. The bills either had prominently stated (and very low) minimum payments or did not (allowing people to pay any amount). The aim of minimum payments is to make people pay off their bills faster, avoiding extra interest charges. However, people who saw the very low payment anchored onto this amount and paid less than people who had a totally free choice about how much they should pay. This exemplifies how an intervention can be dangerous if planned without regard to psychological and behavioural research – the well-meaning attempt to make people pay more on their credit cards may actually lead to them paying less.

In a somewhat similar vein, people show considerable inertia. When presented with options, people tend to stick with the default. For example, requiring people actively to 'opt out' of pension saving schemes or organ donation, rather than requiring them to 'opt in', substantially changes behaviour in what would generally be agreed to be socially desirable direction, yet without removing freedom to choose. This kind of 'nudge' (beautifully reviewed by Richard Thaler and Cass Sunstein in their book of the same name) offers the opportunity for cognitive and economic psychology to improve everyday health-related behaviours and decision-making. Effects of even small behavioural nudges can be strong. For example, merely asking people whether they intend to vote, or whether they plan to buy a car in the next two years, can have a substantial impact on whether those actions actually happen.

One particularly powerful nudge involves providing people with information about 'social norms'. As with income, people judge their own

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situation in terms of how it related to that of others. For example, one's attitude to one's own alcohol or tobacco consumption is influenced by how much one thinks other people drink or smoke. Many people overestimate the amount of such consumption that other people engage in, and work by Wesley Perkins and others in the US has shown, for example, that providing accurate information about how you are doing worse than other people ('most students drink fewer than four times a week', you drink ten) can reduce average consumption. Thus a more realistic perception of what other people are doing, when they are doing better than you, can encourage more positive behaviour.

However, conversely, it can be harmful to provide people with information about how other people have more bad habits than them. For example, telling people that a large number of people miss hospital appointments (at great cost) can actually increase the number of missed appointments. Carelessly planned drug education programmes can give the impression that drug-taking is common, and by changing the perception of the 'social norm' may lead to increased drug-taking in adolescents. These findings both suggest how psychology and behavioural economics can be used to design interventions and highlight the perils of planning interventions without such input.

To conclude: we are optimistic that in the current century a central objective of education, from childhood on, will come to be the development of understanding regarding cognitive biases that determine our choices and plans in economic and consumer contexts. We hope that one day all citizens will learn about what really leads to happiness and life satisfaction at both societal and individual levels. We look forward to a time in which we can all lead better lives by understanding and working within the limitations of the decision-making and choosing mechanisms that evolution has endowed us with.

We do not know how much things have got worse, but we do know that things can get better. We are optimistic that – with the aid of cognitive science and behavioural economics – they will.