Measuring Wellbeing Series

These discussion papers draw from a range of experts on approaches to measuring wellbeing. The intention is to promote debate and thought. Views expressed do not necessarily represent the What Works Centre for Wellbeing.

Paul Dolan, Laura Kudrna and Stefano Testoni November 2017

definition and measures of subjective wellbeing

DISCUSSION PAPER 3

CENTRE for ECONOMIC P E R F O R M A N C E





what works wellbeing



About the Measuring Wellbeing Series

The measuring wellbeing series consists of discussion papers and how-to guides. This publication is a discussion paper.

Why ignite discussion about measuring wellbeing?

In our role as an independent collaborating centre and thought leader, the What Works Centre for Wellbeing brings together the disparate theoretical threads to draw out what this means, practically, for decision makers. The Centre recognises wellbeing as a multi-dimensional concept, where a range of definitions and measures may apply and are useful for different purposes.

We don't have just one measure of health or illness; we have many different tools designed to help us understand each in different situations. We'd like to encourage discussion of how different approaches to understanding and measuring wellbeing might be applied as 'the best tool for the job' in different situations as well.

This series of discussion papers includes inputs from leaders in the field. It draws together views of how we could define and measure wellbeing and use this in decision-making in different sectors across UK.

What does this mean for me?

These discussion papers are mainly aimed at analysts, wanting to understand the latest thinking and theoretical underpinnings. However, the accompanying blog and 'Practical Guides' are aimed at all audiences who may be considering how to put wellbeing into practice.

We hope that this paper and series will prompt discussion and bring these methods to life, so we can put these into practice.

Got a question about this paper? Want to share your views? Try our online expert network

About the What Works Centre for Wellbeing

We are an independent organisation set up to produce robust, relevant and accessible evidence on wellbeing. We work with individuals, communities, businesses and government, to enable them to use this evidence make decisions and take action to improve wellbeing.

The Centre is supported by the ESRC and partners to produce evidence on wellbeing in four areas: work & learning, culture & sport, community, and cross-cutting capabilities in definitions, evaluation, determinants and effects

About the authors

Paul is currently Professor of Behavioural Science at the LSE and Director of Executive MSc Behavioural Science.

Laura Kudrna (MSc Social Research Methods, BSc Psychology) is a final year Doctoral Candidate in the department of Social Policy at the LSE.

Stefano Testoni is a PhD Student in the department of Psychological and Behavioural Science at LSE.



The measurement and valuation of individual wellbeing is central to monitoring welfare trends over time, informing the design of policy interventions, and in the economic appraisal of policies (e.g., Dolan & Metcalfe 2012; Dolan et al., 2011). The conclusions we reach about the effectiveness of policy interventions, about who is doing well and badly, and to what extent, depend on how wellbeing is defined and measured (e.g., Luhmann et al, 2012; Layard et al., 2008; Peasgood, 2008).

Many definitions of wellbeing have been proposed in the philosophical and social sciences (see Parfit, 1984; Dolan et al., 2011). In recent years, policymakers and academics (e.g., Stone & Mackie, 2014; Organisation for Economic Cooperation and Development, 2013; Waldron, 2010; Stiglitz et al., 2009; Dolan & Kahneman, 2008; HM Treasury, 2008) have been focussing increasing interest on the "mental state" account of wellbeing – also known as subjective wellbeing (SWB).

SWB describes wellbeing in terms of the feelings, experiences and sentiments arising from what people do and how they think (Dolan, 2014). This definition builds on the notion of wellbeing conceived by Bentham (1879), who theorised that pleasure and pain are the only things that are good and bad for human beings. What makes these things good and bad is, respectively, their pleasurableness and painfulness (Crisp, 2006) – that is, the amount of positive and negative affect felt. Feelings such as happiness, joy, contentment, and excitement are all instances of pleasure, while sadness, worry, stress, and anxiety are examples of pain.

People's experiences also involve feelings of purpose (e.g., worthwhileness, meaningfulness) and pointlessness (e.g., futility, boredom), which are evocative of the Aristotelian construct of "eudemonia" – the state of virtue and self-proliferation that all human beings should strive towards (Rowe & Broadie, 2002). Modern philosophers argue that feelings of purpose contribute towards wellbeing independently of pleasure and pain (e.g., Hurka, 1993). In order to be considered an adequate account of human wellbeing, therefore, SWB should encompass feelings of both pleasure and purpose – referred to as "sentimental hedonism" by Dolan (2014).

From a both theoretical and policy perspective, the SWB account of wellbeing has many advantages over alternative definitions of wellbeing that have been rehearsed elsewhere (see Fujiwara & Campbell, 2011; Dolan & Peasgood, 2008; Dolan & Kahneman, 2008; Kahneman et al., 1997). In particular, and contrary to other definitions, SWB can account for a wide range of psychological phenomena characterising wellbeing dynamics over time, such as adaptation (Dolan 2014; Bradford & Dolan, 2010; Frederick & Loewenstein, 1999).

Let us be clear however that we view SWB as the ultimate variable of interest – the left-hand side variable in a regression model. There is considerable category confusion around what constitutes wellbeing itself and what is an important determinant of wellbeing, or right hand side variable. This confusion is not surprising, because the boundaries between some of the items are very blurred. For example, in the distinction between SWB and mental health, where does one stop and the other one start?



To us, SWB is explained by everything else that could potentially be experienced, felt or happen in life, ranging from the circumstances of people's lives (income, employment, etc.) through to activities they engage in (sport, culture, arts, etc.), as well as the thoughts in their mind, which cover a whole range of possible mental health conditions. Our circumstances, activities and what we attend to are all independent, explanatory variables for the final consequence that is SWB.

Significantly, we need to be alert to issues of reverse causality – the fact that SWB will cause other consequences of policy interest. Our behaviours, and the context within which these behaviours occur, determine our SWB; but, in turn, the feelings we experience influence how we subsequently behave (Dolan & Galizzi, 2015). In other words, SWB causally influences the circumstances of our life, the activities we engage in and other outcomes that society and policymakers care about, such as physical health (Cohen et al, 2006).

The measurement of SWB can be implemented in a number of different ways. To date, SWB has been most often assessed by asking people to provide global and retrospective evaluations of their life and experiences. Such evaluative measures are especially commonplace in national and international surveys on wellbeing. In the UK, for instance, the Measuring National Wellbeing programme at the Office for National Statistics (ONS) asks people to report on their satisfaction and feelings in specific life domains (e.g., work, health, relationships) and in relation to their life overall and their previous day (the "ONS 4"). Similar measurements in other surveys have also been focused on life satisfaction (Donovan & Halpern, 2002), as well as general happiness (Waldron, 2010).

We can learn a lot from how people evaluate their life and their experiences. Evaluative SWB may indeed reveal the degree to which people have satisfied their preferences (Akay et al., 2015) and be informative of their future choices (Kahneman et al., 1997). In general, though, these evaluations are prone to be biased by the context of the survey (e.g., Schwarz et al., 1987) and are shaped by what is currently salient in their memory and attention (e.g., Wilson et al., 2000). Most crucially, people tend to neglect the duration of their experiences when making evaluative judgments (Tadić et al., 2014; Miron-Shatz et al., 2009; Morewedge et al., 2005; Kahneman et al., 1993).

Policy-makers should therefore exercise caution when drawing conclusions about how people are doing based on evaluative measures, because such measures may not be accurate representations of people's experiences and how these evolve over time due to psychological "biases" such as duration neglect (Kahneman et al., 1997). In practice, this means that policy-makers may not be able to intervene accordingly to improve wellbeing.

Consider, for instance, those people whose SWB is more susceptible to positive and negative environmental influences (see Pluess, 2015): their SWB is likely to fluctuate more than others' during a period of time, as environments constantly change over time. Yet this experienced variability might not transpire in people's global evaluations, which would then be less informative for policy purposes. The same issue applies to people with



mental health conditions, such as bipolar disorder, which are characterised by extreme fluctuations in mood over time.

In contrast, directly capturing experiences over time allows policy-makers to assess more precisely whether or not there is the need for intervention, whether or not policies are effectively accomplishing the desired outcomes, and whether or not SWB is improving over sufficiently long time periods (Dolan & Kahneman, 2008; Kahneman & Krueger, 2006; Kahneman et al., 2004).

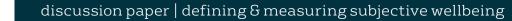
A valid measure of SWB will not only account for the valence and intensity of feelings but also how long these feelings last. Someone who reports feeling happy throughout the day is happier than someone who reports feeling happy for only one moment in the day. Measures of SWB fit for policy purposes and central to establishing "what works" should be able to directly capture the flow of SWB over time.

Experience-based measures of SWB can be collected in several ways. One way is to ask people in experimental settings to continuously report on their feelings as they are engaged in a task (e.g., Fredrickson & Kahneman, 1993; Redelmeier & Kahneman, 1996). Other measurement methods have been developed, such as the Ecological Momentary Assessment (Stone et al., 1999) and the Day Reconstruction Method (Kahneman et al., 2004). Experiences may be also affected by "mind wanderings" (Smallwood & Schooler, 2006) and "intrusive thoughts" (Dolan, 2011), which should ideally be monitored in empirical investigations.

In a nutshell – the measure matters. There can be substantial divergence between evaluative and experience-based measures of SWB, as well as between pleasure and purpose (see Dolan, 2014; Luhmann et al., 2012; Pavot & Diener, 1993). Evaluative measures can be informative for policy, but we now need to go further because they do not accurately account for the duration of feelings, and may not even account for feelings at all. People experience their life always, but only evaluate it sometimes (Haybron, 2008; Feldman, 2004), and we should care about the frequency with which people are doing well or badly.

What type of SWB the general public prefers is of course important. But prior research in this area usually poses trade-offs between overall evaluations of life and time-limited snapshots of experienced SWB. This may explain why the public tends to prefer SWB evaluations, in addition to the lack of awareness of duration neglect in evaluations (O'Donnell & Oswald, 2015; Benjamin et al, 2012). When duration has been considered in people's trade-offs, it has only been considered for positive and not negative affect or experienced purpose (Benjamin et al, 2013). As with most areas, more research is needed before we can start drawing meaningful conclusions about what the public wants (assuming what they want has normative significance, of course).

Whatever the current state of knowledge about such matters, and irrespective of the views held about the suitability of life satisfaction as an account of wellbeing,, experience-based SWB measures can reveal information that might not emerge in evaluative assessments and, in this respect, such measures are needed to complement evaluative SWB. We would go further and argue that we should look at experience-



W

based SWB as the ultimate conceptualisation of wellbeing to guide our approach, independently of and additionally to people's evaluative judgements.

References

Akay, A., Bargain, O., & Jara, H. X. (2015). Back To Bentham: Should We? Large-Scale Comparison of Decision versus Experienced Utility for Income-Leisure Preferences.

Benjamin, D. J., Heffetz, O., Kimball, M. S., & Szembrot, N. (2012). Beyond happiness and satisfaction: Toward well-being indices based on stated preference (No. w18374). National Bureau of Economic Research.

Benjamin, D. J., Heffetz, O., Kimball, M. S., & Rees-Jones, A. (2013). Can marginal rates of substitution be inferred from happiness data? evidence from residency choices (No. w18927). National Bureau of Economic Research.

Bentham, J. (1879). An introduction to the principles of morals and legislation. Clarendon Press.

Bradford, W. D., & Dolan, P. (2010). Getting used to it: The adaptive global utility model. Journal of Health economics, 29(6), 811-820.

Crisp, R. (2006). Hedonism reconsidered. Philosophy and Phenomenological Research, 73(3), 619-645.

Dolan, P. (2011). Thinking about it: thoughts about health and valuing QALYs. Health economics, 20(12), 1407-1416.

Dolan, P. (2014). Happiness by Design: Change What You Do, Not How You Think. Penguin.

Dolan, P., & Galizzi, M. M. (2015). Like ripples on a pond: behavioral spillovers and their implications for research and policy. Journal of Economic Psychology, 47, 1-16.

Dolan, P., & Kahneman, D. (2008). Interpretations of Utility and Their Implications for the Valuation of Health*. The Economic Journal, 118(525), 215-234.

Dolan, P., Layard, R., & Metcalfe, R. (2011). Measuring subjective well-being for public policy. London: Office for National Statistics.

Dolan, P., & Metcalfe, R. (2012). Measuring subjective wellbeing: Recommendations on measures for use by national governments. Journal of Social Policy, 41(02), 409-427.

Dolan, P., & Peasgood, T. (2008). Measuring well □ being for public policy: preferences or experiences?. The Journal of legal studies, 37(S2), S5-S31.

Donovan, N., Halpern, D., & Sargeant, R. (2002). Life satisfaction: The state of knowledge and implications for government. Cabinet Office, Strategy Unit.

Feldman, F. (2004). Pleasure and the Good Life: Concerning the Nature, Varieties, and Plausibility of Hedonism. Oxford University Press, USA.

Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation, in D. Kahneman, E. Diener, & N. Schwarz (eds.), Wellbeing: The foundations of hedonic psychology, pp. 302-29, New York: Russell Sage Foundation.



Fredrickson, B. L., & Kahneman, D. (1993). Duration neglect in retrospective evaluations of affective episodes. Journal of personality and social psychology, 65(1), 45.

Fujiwara, D., & Campbell, R. (2011). Valuation Techniques for Social Cost-Benefit Analysis: Stated preference, revealed preference and subjective well-being approaches: a discussion of the current issues. HM Treasury.

Haybron, D. M. (2008). The Pursuit of Unhappiness: The Elusive Psychology of Well-Being. Oxford University Press.

H. M. Treasury (2008). Developments in the economics of well-being. London: Stationery Office.

Hurka, T. (1993). Perfectionism. Oxford University Press.

Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. Science, 306(5702), 1776-1780.

Kahneman, D., Fredrickson, B. L., Schreiber, C. A., & Redelmeier, D. A. (1993). When more pain is preferred to less: Adding a better end. Psychological science, 4(6), 401-405.

Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. The journal of economic perspectives, 20(1), 3-24.

Kahneman, D., Wakker, P. P., & Sarin, R. (1997). Back to Bentham? Explorations of experienced utility. The quarterly journal of economics, 375-405.

Layard, R., Mayraz, G., & Nickell, S. (2008). The marginal utility of income. Journal of Public Economics, 92(8), 1846-1857.

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: a meta-analysis. Journal of personality and social psychology, 102(3), 592.

Miron-Shatz, T., Stone, A., & Kahneman, D. (2009). Memories of yesterday's emotions: Does the valence of experience affect the memory-experience gap?. Emotion, 9(6), 885.

Morewedge, C. K., Gilbert, D. T., & Wilson, T. D. (2005). The least likely of times how remembering the past biases forecasts of the future. Psychological Science, 16(8), 626-630.

O'Donnell, G., & Oswald, A. J. (2015). National well-being policy and a weighted approach to human feelings. Ecological Economics, 120, 59-70.

Organization for Economic Cooperation and Development (2013), OECD Guidelines on Measuring Subjective Well-being, OECD Publishing. http://dx.doi.org/10.1787/9789264191655-en

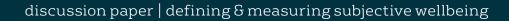
Parfit, D. (1984). Reasons and persons. Oxford University Press.

Pavot, W., & Diener, E. (1993). The affective and cognitive context of self-reported measures of subjective well-being. Social Indicators Research, 28(1), 1–20.

Peasgood, T. (2008). Measuring well-being for public policy. PhD thesis, Imperial College London.

Pluess, M. (2015). Individual differences in environmental sensitivity. Child Development Perspectives.

Redelmeier, D. A., & Kahneman, D. (1996). Patients' memories of painful medical treatments: real-time and





retrospective evaluations of two minimally invasive procedures. Pain, 66(1), 3-8.

Rowe, C. J., & Broadie, S. (2002). Nicomachean ethics. Oxford University Press.

Schwarz, N., Strack, F., Kommer, D., & Wagner, D. (1987). Soccer, rooms, and the quality of your life: Mood effects on judgments of satisfaction with life in general and with specific domains. European Journal of Social Psychology, 17(1), 69-79.

Smallwood, J., & Schooler, J. W. (2006). The restless mind. Psychological bulletin, 132(6), 946.

Stiglitz, J., Sen, A., & Fitoussi, J. P. (2009). The measurement of economic performance and social progress revisited. Reflections and overview. Commission on the Measurement of Economic Performance and Social Progress, Paris.

Stone, A. A., & Mackie, C. (Eds.). (2014). Subjective well-being: Measuring happiness, suffering, and other dimensions of experience. National Academies Press.

Stone, A. A., Shiffman, S. S., & DeVries, M. W. (1999). Ecological momentary assessment. In D. Kahneman,

E. Diener, and N. Schwarz (Eds.), Well-being: the foundations of hedonic psychology (26-39). New York: Russel-Sage.

Tadić, M., Braam, H., Van Vliet, K., & Veenhoven, R. (2014). Memory-experience gap in early adolescents' happiness reports. Child Indicators Research, 7(1), 21-40.

Waldron, S. (2010). Measuring subjective wellbeing in the UK. Newport: Office for National Statistics.

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. Psychological review, 107(1),

