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The Promotion of Wellbeing: A Primer for Policymakers

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The Promotion of Wellbeing: A Primer for Policymakers

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Abstract

There is growing international interest among policymakers in the promotion of wellbeing as an objective of public policy. Recent advances in the definition and measurement of wellbeing are giving rise to an increasingly detailed picture of the factors that determine how people think and feel about their lives. Patterns in reported wellbeing show markedly different development over time to measures of GDP per capita and life expectancy often used as proxies for wellbeing by policymakers. However, the concept of wellbeing remains poorly understood by many policymakers and much of the evidence base is extremely recent. I therefore review the current state of the literature on the definition, measurement, and determinants of wellbeing, and discuss some of its implications for public policy.

Keywords: Wellbeing, Government, Public policy

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1 Introduction

There is now a growing global interest in the promotion of wellbeing as an objective of public policy. In 2008 French President Nicholas Sarkozy commissioned the now influential Stiglitz report, headed by two Nobel-prize winning economists, with the aim of identifying the limits of GDP as an indicator of economic performance and social progress, and the additional information required for the production of a more relevant picture. The headline recommendation of the report is for a new measure of growth that takes into account social-wellbeing (Stiglitz *et al.*, 2009).

The UK, for example, introduced The Local Government Act 2000 giving local authorities broad new powers to undertake action to promote or improve the economic, social, or environmental wellbeing of their area (the wellbeing power).[1] The test for local government intervention under the Act is simply whether the proposed action is likely to promote or improve the economic, social, or environmental wellbeing in their area. The Prime Minister, David Cameron, has spoken of maximising "gross national happiness" as opposed to "gross national product". The government has also set up the Whitehall Wellbeing Working Group (W3G) to examine the definition and measurement of wellbeing and has commissioned a number of studies into the role of wellbeing in public policy (see e.g. Dolan, Peasgood and White, 2006; Donovan and Halpern, 2002).

The growing interest among politicians is largely the result of an earlier explosion of academic interest in the concept of wellbeing. In particular, there is now a considerable body of literature – spanning at least economics, medicine, philosophy, psychology, social geography, and sociology – investigating the definition, measurement, and determinants of individual wellbeing.

Although this literature provides a growing body of evidence in relation to these topics, many of the advances are too recent to have been widely disseminated and understood among policymakers. A lack of understanding of wellbeing appears to be holding back the implementation of the promotion of wellbeing as a practical tool of policy. For instance, the wellbeing power granted to UK local authorities is known to be under-utilised and subject to widespread misunderstandings (Department for Communities and Local Government, 2008a,b).

In this paper, therefore, I attempt to summarise the main developments to have emerged from the academic study of wellbeing, and discuss their relevance for public policy. As such, the paper does not attempt to be exhaustive: I instead attempt to cover what I see as the most relevant aspects of the literature for policymakers. For the reader seeking further depth, other, more focused, reviews are available of the definition (Crisp, 2008), measurement (Kahneman and Krueger, 2006) and determinants (Dolan *et al.*, 2008) of wellbeing.

[1] Plans to extend the existing wellbeing power defined in the 2000 Act have recently been published in the 2010 Decentralisation and Localism Bill.

The plan of the paper is as follows: Section 2 discusses the concept of wellbeing. I argue that the view of wellbeing that has moved to the forefront of academic thinking treats wellbeing as a subjective quantity that reflects how people think and feel about their lives. This concept of wellbeing is denoted subjective wellbeing (SWB), and is the main focus of this paper. By contrast, policymakers are more familiar with the concept of objective wellbeing (OWB), which reflects an objective view of a person's wellbeing given their circumstances. Policymakers have long sought to improve levels of OWB through, for instance, promoting levels of GDP per capita, life expectancy, and education, but have hitherto lacked the technology to measure how these efforts have affected people's own view of their wellbeing, i.e. SWB.

Section 3 discusses the question of the measurement of wellbeing. I review direct approaches to measuring SWB, an area that has been the source of much methodological development and controversy in recent years. Although much work is ongoing, the emerging consensus is that simple cost-effective questions that ask subjects to self-rate their SWB on a numerical scale can provide reliable measures of wellbeing suitable for informing public policy. I consider whether objective policy outcomes, such as mortality and employment rates, that have traditionally been monitored by government are good indicators of how people think and feel about their lives. I argue that may not always be the case. For instance, there is now abundant evidence from studies in developed countries that SWB is no longer growing in response to growth in national income (Easterlin, 1995, 2001).

Section 4 reviews what is known about the economic, social, and environmental determinants of SWB from statistical analyses of large wellbeing datasets. In particular, I focus on the differing roles of income and social capital in creating wellbeing. Section 5 discusses the implications of our understanding of wellbeing for policymakers. I argue that wellbeing might provide a means of valuing non-monetary goods such as clean air or peace and quiet, and that the intensity with which different domains impact on wellbeing might be used as a way of weighting different policy outcomes. I also explore some of the emerging policy implications, such as the controversial idea that growing social capital might be more important than growing incomes in the promotion of wellbeing. Section 6 concludes.

2 What is Wellbeing?

The term "wellbeing" has long been extensively used within governments, but not typically with any great consistency or precision. For instance, the British government failed to provide any detailed guidance on the meaning of the terms "economic, social, and environmental wellbeing" in relation to the wellbeing power other than to note that it "considers these terms to be sufficiently broad to encompass both cultural wellbeing and the promotion or improvement of the health of a council's residents or visitors to the area" (Department for Communities and Local Government, 2000). However, different to the tripartite definition of wellbeing in respect of the wellbeing power, the set of UK National Indicators used to evaluate local authorities refers to "adult health and wellbeing", thereby appearing to associate wellbeing closely with health outcomes

(Department for Communities and Local Government, 2007). This lack of clarity over what is meant by wellbeing appears an important practical obstacle to the implementation of policy to promote wellbeing.

2.1 Objective and Subjective Wellbeing

Academics have had an equally difficult task in pinning down the concept of wellbeing: the Stanford Dictionary of Philosophy devotes 11-pages to the issue. Essentially, however, philosophical use amounts to the notion of how well a person's life is going for that person (Crisp, 2008). A key aspect of this definition is that wellbeing is subjective to each individual, in that presumably it is only the individual themselves that is in a position to judge how well their life is going for them. This gives rise to the concept of subjective wellbeing (SWB) as a person's subjective evaluation of their own lives.

By contrast, the concept of objective wellbeing (OWB) refers to an objective view of a person's wellbeing given their objective circumstances. Various writers have proposed the existence of a set of 'basic needs' that are necessary for individuals to develop their own wellbeing, such as food, shelter, education, health, security, and freedom (e.g. Nussbaum, 2000; Rawls, 1971; Sen, 1999). As a result, OWB is commonly measured by the level of provision of these basic needs. Various theories in social psychology, most famously Maslow's (1943) hierarchy of needs, go further to posit a range of 'higher order' needs, such as friendship and environmental mastery, which sit on top of basic needs. This idea leads to 'flourishing' or 'eudaimonic' concepts of wellbeing that incorporate both objective and subjective factors (see e.g. Ryan and Deci, 2000; Ryff, 1989).

Although it is measures of SWB that are now at the forefront of academic analysis, the concept of OWB is currently the more widely understood by policymakers. For instance, the UK National Indicators (used to evaluate local government) primarily consist of objective indicators such as crime, mortality and employment rates, while the Human Development Index – which monitors life expectation, GDP per-capita, and education – is a well-known index of OWB across countries. The current popularity of OWB among policymakers is probably because it can be measured by tangible indicators that are relatively straightforward to collect and interpret. By contrast, measuring SWB requires getting to grips with intangible concepts such as people's thoughts and emotions, which until recently it was thought impossible to measure and interpret reliably.

Although the promotion of OWB has proved useful as a goal for policymakers, there are a number of difficulties with the approach. First, in attempting to set down the factors necessary for the development of wellbeing, policymakers may unwittingly end up prescribing what factors *should* generate wellbeing. For instance, quality of life indices are often constructed by geographers to compare the attractiveness of different areas by forming a composite index based on objective measures such as crime rates, average rainfall, congestion, availability of healthcare, quality of landscape etc.[2] But some individuals may prefer high rainfall, and a certain section of the population almost

[2] See e.g. the Halifax Quality of Life Survey published annually for the UK since 2006.

certainly prefers a high crime rate (Bell, 2005). Therefore indices of OWB may simply reflect the values of those who construct them.

Second, studies of SWB have thrown up awkward questions of causality. For instance, while from an OWB perspective an increase in life expectancy is thought to cause an increase in wellbeing, it may actually be that increases in wellbeing cause an increase in life expectancy. There is evidence that happier people tend to live longer and are less susceptible to, and are more able to cope with, a range of diseases and traumas. For instance, a study of nuns finds that sisters who showed greater signs of depression on entering the convent in their youth (as assessed from written autobiographies at the time) were more prone to a number of health problems at a later time (Snowdon, 2001) and died earlier (Danner *et al*., 2001).

2.2 Interpretations of Subjective Wellbeing

The concept of SWB has a number of differing interpretations in the literature, unified by their primary concern with the respondents' own internal judgements of wellbeing, rather than what policymakers, academics, or others consider important (Diener and Suh, 1997). Here I discuss three such interpretations: desire-fulfilment, hedonic, and deliberative.

Harsanyi (1977) proposes a desire fulfilment interpretation that defines SWB in terms of the degree to which people are able to fulfil their desires or satisfy their preferences. Wealth is seen as a relatively useful proxy in desire-fulfilment terms because it generally enables people to satisfy more of their material preferences. For the purposes of public policy, however, the desire-fulfilment interpretation is problematic. For instance, there are some desires that surely should not be satisfied, including those that are misguided (because of a lack of information) or that are antisocial (Dolan and White, 2007).

Also, implementation of the desire-fulfilment interpretation requires people to predict how their future wellbeing would change if a particular desire were fulfilled. However, there appear to be pervasive focusing effects whereby, when people think about how much an event will affect them, they focus on that event as being much more important to their lives than it turns out to be (Dolan and Metcalfe, 2010; Schkade and Kahneman, 1998). Also, people often overestimate how long particular emotions will last (Wilson and Gilbert, 2003). This might be because people underestimate their subsequent adaptation to outcomes, or because they hold "faulty implicit theories" about what is good and bad for their wellbeing (Kasser and Ryan, 1993; Loewenstein and Schkade, 1999).[3]

Some economists have argued that, as a way around these difficulties, public policy should instead promote a set of "idealised" or "informed" preferences (Harsanyi, 1996; Kahneman and Sugden, 2005). However, how to construct such a set of preferences is unclear.

[3] Research also shows that people can be influenced by logically irrelevant features of choice tasks (Kahneman, Ritov and Schkade, 1999); can act impulsively against their better judgement (Strack and Deutsch, 2004); and can become fixated on means rather than ends (Hsee *et al*., 2003).

By contrast, hedonic interpretations of wellbeing, which originate back to at least Bentham (1789), emphasize SWB as reflecting the balance of pleasure and pain. A modern interpretation is provided by Kahneman, Diener and Schwarz (1999), who define hedonic psychology as "the study of what makes experiences and life pleasant and unpleasant focusing largely on the preferences and pleasures of the mind and the body." A distinctive aspect of the hedonic approach is its emphasis on people's instantaneous positive and negative moods throughout the day. Accordingly, a person's overall wellbeing is argued to be the sum of their wellbeing at each separate moment in time (Kahneman *et al*., 2004).

However, it is unclear as to the precise relationship between people's moods and emotions over the day and their overall assessment of their wellbeing. For instance, school pupils asked to report their moods during the day report the lowest levels of happiness when doing homework, yet pupils who study more report higher levels of overall happiness (Csikszentmihalyi and Hunter, 2003). People may weight short but intense experiences more strongly than long, but less intense, experiences (Kahneman *et al*., 1997). Personal recollections of earlier wellbeing are sometimes at odds with the person's own 'moment to moment' accounts of wellbeing: people appear to forget how long certain pleasures and pains lasted for (Kahneman, 2000).

A practical difficulty with the hedonic interpretation of wellbeing from the perspective of policymakers is that, to be measured, it requires the intensive monitoring of people's positive and negative moods and emotions throughout the day. In practice, this makes surveying the wellbeing of a large population infeasible.

The final interpretation of SWB I discuss is by now the prevailing interpretation in the literature: the evaluative interpretation. Originating in positive psychology, the evaluative interpretation emphasises SWB as an evaluative judgement across a range of domains as to how people think and feel about their lives. Diener *et al.* (1999) write that "an individual's assessment of their life has become to be understood in the literature as their subjective wellbeing."

The evaluative interpretation of SWB is, from a philosophical perspective, arguably no better or worse than other interpretations of SWB. Its popularity instead appears to stem from its appeal for public policy (relative to the desire fulfilment interpretation) and from its ease of measurement (relative to the hedonic interpretation). However, as I discuss in later sections, even with respect to evaluative SWB there remain considerable controversies over its measurement and its promotion as a goal of public policy. I take up the first of these issues in the next section.

3 Measuring Subjective Wellbeing

If you want to know how a person subjectively evaluates their life, a sensible starting point is to ask them.[4] For this reason, the standard approach to measuring (evaluative) wellbeing is through a question of the following type: "All things considered, how satisfied are you with your life as a whole these days?" The response categories range from 1 to 10 with 1 being "dissatisfied" and 10 being "satisfied". Questions of this type have been included for many years in international surveys such as the World Values Survey and Eurobarometer, as well as in large national surveys such as the US General Social Survey and the British Household Panel Survey.

It is not immediately clear that asking such a question produces meaningful responses. One concern is the question of reliability: will a person who rates their wellbeing as *X* on one day rate themselves again as *X* on another day so long as no significant changes in their life circumstances have occurred? A second concern is validity: do the ratings people provide accurately tap into the appropriate underlying concept of wellbeing? A third concern is interpersonal comparability: are two people who provide the same rating equally happy with their lives?

The first of these concerns, the reliability of self-reported SWB, can be assessed through statistical techniques. Studies that employ a similar wellbeing question to that discussed above report high levels of internal reliability (see e.g. Diener *et al*., 1985; Lepper, 1998; Peterson *et al*., 2005).

The second of these concerns, the validity of self-reported SWB, has been assessed by examining whether responses correlate with other measures of wellbeing. Research finds a strong positive correlation between the answers to wellbeing questions and emotional expressions, like smiling, frowning and brain activity (Davidson, 2004; Fernandez-Dols and Ruiz-Belda, 1995; Sandvik *et al*., 1993; Shizgal, 1999). It is also reassuring that, in general, people have little trouble answering such wellbeing questions. For large-scale surveys such as the US General Social Survey non-response rates are less than one per cent (Easterlin, 2001).

Another approach examines whether wellbeing ratings correlate with other physiological measures (biomarkers). As well as Snowdon's (2001) nun study discussed in Section 2, Cohen *et al*. (2003) perform an experiment in which subjects are asked a wellbeing question and are subsequently injected with a form of the cold virus. The authors find that people with higher initial SWB are not only are less likely to develop a cold following exposure to the virus but also tend to recover more quickly if they do catch a cold. Ebrecht *et al*. (2004) show a strong negative correlation between healing times of an experimentally induced wound and wellbeing ratings. Blanchflower and Oswald (2008) relate differences in wellbeing across countries to differences in self-reported high blood pressure.

A final approach examines whether wellbeing ratings are predictive of behaviour. Although more research is needed in this area, we know that there is a strong and

[4] As the economist Alan Blinder once famously said: "If particles could talk, would physicists refuse to listen?"

consistent relationship between reported SWB and suicide (Daly and Wilson, 2009; Koivumaa-Honkanen *et al*., 2001). There is also early evidence that reported wellbeing is positively related to labour productivity (Oswald *et al*., 2008).

The final concern, the interpersonal comparability of self-reported SWB, arises as it would seem that the phrasing of the wellbeing question leaves each person free to define wellbeing as he or she pleases. However, there is some evidence to suggest that people use the SWB scale in largely the same way. First, individuals are able to recognise and predict the satisfaction level of others. In interviews in which respondents are shown pictures or videos of other individuals, respondents are quite accurate in identifying whether the individual shown to them is happy, sad, jealous, etc (Diener and Lucas, 1999). Self reports of SWB tend to converge with ratings made by significant others (spouse, close friend, or relative), and by minimally trained observers (Lepper, 1998; Redelmeier and Kahneman, 1996).

In the early 1960s, Cantril (1965) carried out an intensive survey in fourteen countries with highly diverse cultures and at widely different stages of socio-economic development, asking open-ended questions about what people want out of life. His findings suggest that, although each individual is free to define wellbeing in their own terms, in practice the kinds of things chiefly cited as shaping happiness are for most people much the same.

Attempts have also been made to measure other interpretations of wellbeing, although these have occurred on a much smaller scale. For instance, hedonic wellbeing can be measured by the Experience Sampling Method, which asks people to assess their current or recent moods and emotions on a numerical scale at different points in the day (see e.g. Csikszentmihalyi and Hunter, 2003). However, the approach is costly due to the large amounts of data collection and analysis involved. The Day Reconstruction Method of Kahneman *et al*., (2004) attempts to mitigate some of these problems by simply asking people to write a diary of the main events or episodes of the day before (i.e. yesterday) and evaluate their emotions during each of these events or episodes. Other survey-based methods of measuring wellbeing have been developed that attempt to capture recent emotions over the past two-weeks to one-month.[5] Unfortunately, however, as yet there is little evidence on the reliability and validity of these approaches.

3.1 Are Measures of SWB Useful for Policymakers?

The encouraging findings regarding the reliability, validity and comparability of evaluative measures of SWB have led to the concept being taken seriously by governments around the world. However, to be of practical use to policymakers, the measurement of SWB needs also to be cardinal, unbiased, and sensitive to changes in wellbeing (Dolan and Peasgood, 2008).

[5] These include the Positive and Negative Affect Scale (PANAS) of Watson *et al*. (1988) and the Affectometer 2 of Kammann and Flett (1983).

Cardinality relates to the idea that, for most purposes, policymakers need to able to know how much wellbeing changes, as well as whether it goes up or down. Strictly speaking, however, all we know for sure about wellbeing ratings are their ordinal properties, i.e. that a rating of 6 implies a higher wellbeing than a rating of 5. Recent research, however, suggests that wellbeing ratings can be treated as cardinal, so, for instance, the difference in wellbeing between the ratings 2 and 3, is approximately the same as the difference in wellbeing between the ratings 5 and 6 (Ferrer-i-Carbonell and Frijters, 2004; Layard *et al*., 2008).

Unbiasedness is the idea that wellbeing ratings should, on average, reflect the true underlying level of wellbeing. It is known, however, that ratings on SWB scales are subject to occasionally pronounced context effects (Schwarz and Strack, 1999). Responses are affected by, for instance, the ordering of the questions (Schimmack and Oishi, 2005), the presence of a handicapped person in the room (Schwarz and Clore, 1983), and even the weather (Strack *et al*., 1988). It is possible that these situational factors act by influencing the selective sources of memory that people draw upon in responding to wellbeing questions. These effects highlight the need for care in the administration of wellbeing surveys, and for caution in some aspects of their interpretation.

There is also evidence to suggest that some people may alter their true responses in order to give a socially appropriate response. For instance, a recent widow might perceive a social expectation to report a low level of wellbeing (Carstensen and Cone, 1983). Also, if in future, measures of wellbeing become politically relevant then individuals may have an incentive to mis-report their wellbeing (Frey and Stutzer, 2008).

The sensitivity of wellbeing ratings to underlying wellbeing is essential to policymakers, so as to make it possible to measure the changes in wellbeing that arise as a result of policy changes and initiatives. A key difficulty here is adaptation – the tendency for people to habituate to changes in their objective circumstances, such as income, living conditions and health. Although winning a lottery or losing a limb initially provokes euphoria or despair, in the longer term quadriplegics report similar levels of SWB to lottery winners (Brickman *et al*., 1978; Oswald and Powdthavee, 2008).[6] If adaptation to all determinants of SWB is complete, as supposed by some psychologists, humans may simply be trapped on a 'hedonic treadmill', in which case policy cannot influence long-run levels of SWB (Brickman and Campbell, 1971).

Adaptation can also result in what Dolan and White (2007) call the "happy slave" problem in which policymakers might fail to intervene on behalf of people, who by any objective standard deserve greater support, because they fail to express any overt

[6] The source of this adaptation may be that people's aspirations change in line with changes in their objective circumstances. For instance, a common finding is that, as people's incomes increase, so does their estimate of a 'satisfactory' or 'sufficient' income: a 10% increase in income increases the estimate of 'sufficient' income by around 6% (Stutzer, 2004; van Herwaarden *et al*., 1977).

dissatisfaction with their situation. This suggests that the promotion of SWB is unlikely to be appropriate as the sole goal public policy: some role remains for measures of OWB.

Despite these issues, it does not appear that adaptation is an insurmountable problem for the use of SWB in public policy. Adaptation does not appear to be universal across domains, and there are a number of experiences – both positive and negative – to which people appear never fully adapt. These experiences include friendships, pain, noise and unemployment, while other experiences, such as divorce, are only fully adapted to after many years (Clark, Diener, Georgellis and Lucas, 2008; Frederick and Loewenstein, 1999). Also, wellbeing measures are sufficiently sensitive to show robust change following changes in, for instance, income, marriage, health, employment status, and frequency of contact with friends and family.

In summary, although the issues of unbiasedness and sensitivity raise some awkward issues for the use of SWB in public policy, it is nevertheless argued that the measures of (evaluative) SWB described in this section nevertheless contain "substantial amounts of valid variance" (Diener, 1984), and might therefore be used to inform public policy.

3.2 Do Measures of SWB and OWB Coincide?

If measures of SWB and OWB are found to tell the same story, policymakers could, after all, measure SWB simply by measuring OWB. However, what evidence we have suggests that how people think and feel about their lives is not necessarily captured by measures of their objective circumstances. For instance, measures of OWB such as the Human Development Index exhibit a markedly different development over time than measures based on SWB (Blanchflower and Oswald, 2005). Despite sustained rises in incomes in many developed countries, average levels of happiness are stationary over time (Easterlin, 2001).

Other similar findings can also be found on more specific domains. Within local government, research into reported satisfaction with public services (e.g. refuse collection) highlights that although objective data show an improving standard of service, nevertheless there has been a tendency for reported satisfaction to fall (James, 2009). Actual crime rates and the perception of local crime among residents are not highly correlated (Carp and Carp, 1982): perceptions of crime and safety influence neighbourhood satisfaction, even after controlling for objective measures of crime (e.g. Parkes *et al*., 2002; Sirgy and Cornwell, 2002).

4 Determinants of Wellbeing

In this section I now review some of what has been learned of the determinants of SWB. Several recent studies have attempted to infer the importance for wellbeing of particular policy-relevant domains by asking people a global wellbeing question followed by several domain specific questions relating to satisfaction with finances, housing, health etc (see Easterlin and Sawangfa, 2007; Kapteyn *et al*., 2009; van Praag *et al*., 2003). The most recent of these studies (Kapteyn *et al*., 2009) finds that satisfaction with the relationship with partners/family, health, job and finances are the most important domains

for wellbeing (in that order), while van Praag *et al*. (2003) also find a role for the satisfaction with one's environment. Given these findings, it appears sensible to follow the tripartite definition of wellbeing found in UK legislation, by reviewing what is known regarding the economic, social, and environmental determinants of SWB.

4.1 Economic Determinants of Wellbeing

For most people, economic factors such as income and employment are important determinants of SWB. For instance, the studies by Easterlin and Sawangfa (2007) and van Praag *et al*. (2003) report a stronger role for finances than for health.

The role of income in SWB is a complex area. On the one hand, wealthier individuals within a society are happier. However, at least for developed countries, average SWB levels appear to be remaining constant in spite of continued economic growth (Easterlin, 1974, 1995) – a finding often termed 'Easterlin's paradox'. The most prominent emerging explanation of the paradox is that, beyond a point, the benefits of income may be relative (or positional) rather than absolute (Clark, Frijters and Shields, 2008; Rablen, 2008). Therefore, if one person gets richer, they get happier, but if everyone gets richer, nobody gets any happier. For policymakers, this implies that driving up incomes in one area will promote local wellbeing, but perhaps at the expense of the wellbeing of people in adjacent localities (Luttmer, 2005).

As well as a concern for relative income, there may be other contributory factors to the paradox. First, in many countries, much of the increase in wealth over time has accrued to those who were already rich, and whose wellbeing was therefore likely to be least sensitive to further increases in wealth. For instance, in the US, where GDP per capita has risen almost continuously post-war, in recent years the median household income (half of all earners are above that income, the other half are below it) has actually fallen (Stiglitz *et al*., 2009).

Second, there appears to be a trend towards work getting more intensive and stressful (Green, 2004). In the 1990's the historical trend of falling hours of work was reversed. The number of people working in 'high-strain' jobs – defined as requiring high effort and having low task discretion – has increased year-on-year since 1992, and such jobs have been found to impact negatively on wellbeing. Last, there is evidence from the US of an increase in economic insecurity, which is linked to ill health (Ferrie, 2001) and reduced wellbeing (Osberg and Sharpe, 2002). For instance, income volatility in the US has been increasing over time (Dynan *et al*., 2008).

More generally, job satisfaction is an important determinant of wellbeing given the amount of peoples' lives spent at work. Although there is some evidence relating to the wellbeing of different types of employment – there is a positive wellbeing effect from self-employment (Blanchflower and Oswald, 1998) – the biggest effect on wellbeing is simply from having a job. There is a wealth of evidence to show that unemployment has a large and persistent negative impact on wellbeing, especially for men (Clark and Oswald, 1994; Oswald, 1997).

4.2 Social Determinants of Wellbeing

The social determinants of wellbeing are potentially numerous and I shall focus on just two: health and social capital (strength of social relationships). Studies consistently show a strong relationship between wellbeing and both physical and psychological health, although part of the effect could be due to reverse causation from wellbeing to health (Dolan *et al*., 2008). For instance, Shields and Wheatley Price (2005) find powerful effects on wellbeing (exceeding those associated with being separated from a marriage partner and unemployment) of recent acute (short-term) illness lasting more than two days and from having been an in-patient in hospital during the previous year. Specific conditions, such as heart attacks and strokes are also shown to reduce wellbeing. A difficulty, however, is that wellbeing scores are much less sensitive to chronic (as opposed to sudden or short-term) conditions because of people's remarkable ability to adapt (Groot, 2000).

There is also evidence that exercise is associated with wellbeing. Causation appears to not only arise indirectly through the positive impacts of exercise on physical health, but also directly through effects of exercise on mental functioning (Penedo and Dahn, 2005). For instance, studies indicate that physical activity improves mood and reduces symptoms of depression and anxiety (Baker *et al*., 2005; Motl *et al*., 2004; Ross and Hayes, 1988; Stephens, 1988).

The role of social capital (the strength of an individual's social networks - encompassing family, neighbourhood and community ties) for wellbeing is the subject of growing academic interest.[7] Much evidence at both the aggregate and individual level suggests that social connections are among the most robust predictors of wellbeing (Stiglitz *et al*., 2009). Moreover, the reported effects are large (see e.g. Powdthavee, 2008). The relationship with one's partner and family has been found to be the single most important domain for wellbeing (Bacon *et al*., 2010; Kapteyn *et al*., 2009). People who have frequent contacts with family, friends and neighbours have SWB almost a full point higher on the 10-point SWB scale than others with no such contacts (Helliwell, 2006). Being married or in a stable relationship is almost universally found to be associated with higher wellbeing (see e.g. Diener *et al*., 1999). Fowler and Christakis (2008) report evidence suggesting that SWB can spread in a beneficially contagious way from one person to another within a social network.

Because the norms of reciprocity and trustworthiness are a near-universal concomitant of dense social networks, researchers have also sought to measure generalised and specific measures of trust - that is, the belief that others around you can be trusted.[8] Although this is a relatively new area, studies find that generalised trust is associated with higher wellbeing (Bjørnskov, 2007; Helliwell and Putnam; 2004).

[7] Following Putnam (2000), social capital is sometimes broken down into bridging (bonds of connectedness that are formed across diverse social groups) and bonding (ties within a homogenous group, e.g. close friends, relatives and neighbours), but practical implementation of this distinction in empirical research remains a challenge.

[8] The canonical generalised trust question is of the form "Do you think that people can generally be trusted, or (alternatively) that you cannot be too careful in dealing with people?"

As well as generating 'internal' effects for members of the network, social networks also generate externalities. For instance, neighbourhood networks such as Neighbourhood Watch may deter house crime, which could benefit residents outside the scheme. However, not all the externalities of social capital need be positive: some networks are used to finance and conduct terrorism, for example. Importantly, however, the available evidence suggests that, whereas the externalities from material advantages are negative (because of a concern for relative income), the externalities from social capital are neutral to positive (Helliwell and Putnam, 2004).

4.3 Environmental Determinants of Wellbeing

The environment in which people live their lives can affect wellbeing in many ways. For instance, factors such as noise, air and water pollution can have a direct impact on health outcomes. Other environmental conditions can affect health indirectly through processes such as climate change and natural disasters that affect the health of ecosystems.

What early evidence we have on the size of environmental factors on wellbeing suggests that these may be less significant than those due to social capital, health and income (van Praag *et al*., 2003). Nevertheless, research has been able to detect small, but statistically significant, impacts of environmental factors on wellbeing. For instance, van Praag and Baarsma (2005) detect a negative association between wellbeing and aircraft noise in the vicinity of Amsterdam's Schipol Airport. Environmental factors such as air pollution (Luechinger, 2009; Welsch, 2006) and climate (Rehdanz and Maddison, 2005) have also been shown to have an impact on wellbeing.

Green spaces, such as local parks, appear to promote wellbeing in a number of ways. First, they facilitate outdoor exercise, which has been found to have even more positive mental health benefits than exercise of other kinds (Pretty *et al*., 2005). Moreover, the psychological benefits of jogging in an urban park outweigh those of street jogging (Bodin and Hartig, 2003). Second, they can also have important effects on social capital at the community level through giving people a place to meet, and children to play (Marmot *et al*., 2010).

Last, perceptions of the safety of an area may also matter for wellbeing, although measurement of the losses of wellbeing due to victimisation and the fear of crime remains difficult. One problem is that victimisation is closely correlated with measures of socio-economic status, making disentangling the role of these two variables empirically difficult (Dolan *et al*., 2008). However, the existing evidence discerns a detrimental impact on wellbeing of living in an unsafe or deprived neighbourhood (Ferrer-i-Carbonell and Gowdy, 2007; Shields and Wheatley Price, 2005).

5 Implications for Policymakers

5.1 Wellbeing as a Means of Valuing Non-Monetary Costs and Benefits

There are a great many non-market goods that policymakers would, in principle, like to be able to place a money value on for the purposes of cost benefit analysis. Measures of wellbeing are one way this can be achieved. The essential idea is that if it is possible to show by how much a given non-market good affects wellbeing, then – based on what is understood of the relationship between wellbeing and income – it is possible to estimate the required income compensation that would hold wellbeing constant. To take a simplified example, suppose that the average level of SWB is found to be 0.5 points lower in areas of high noise pollution (e.g. 3.0) than in areas of low noise pollution (e.g. 3.5), after controlling for all other differences between the two areas. If 3.5 on an SWB scale is associated with an income of £30,000 per annum, compared to £25,000 for an SWB of 3.0, then the monetised cost to residents in the high-noise area of the extra noise can be inferred as £5,000 a year (Dolan and White, 2007).

Using essentially this technique, the study by van Praag and Baarsma (2005) of noise pollution around Schipol Airport finds that, if the government wished to compensate the suffering of aircraft noise above a set threshold level, then for a relatively high threshold the government would need to compensate some 6,000 households an average of €17 per month, costing €1.24 million per annum. For a lower noise threshold, the government would need to compensate 148,000 households an average of €56 a month, costing €100m per annum. The authors are then able to perform a cost benefit analysis on the alternative policies of compensation versus paying for noise insulation of homes. They find that homes should be insulated whenever the one-off costs of insulation are below €5,292 – a figure low enough to suggest that insulation represents the more efficient policy option.

Monetary valuations have been inferred from wellbeing equations for many other non-market goods, with these valuations often appearing in popular media. For instance, marriage brings approximately the same amount of happiness, on average, as having an extra £70,000 of income per annum. Widowhood brings a degree of unhappiness that would take, on average, an extra £170,000 per annum to offset (Clark and Oswald, 2002).

5.2 Wellbeing as a Means of Choosing Between Policy Priorities

One of the principal difficulties in evaluating policy options is the need to rank priorities in spite of a lack of clear a-priori reasons for saying that one domain of life is more important than another. For instance, in deciding whether or not to place a retail park on recreational land, how should policymakers weigh up the economic benefits in respect of increased employment against the loss of recreation suffered by local residents?

Indices of OWB, such as the Human Development Index, respond by simply assigning equal weight to each domain. However, wellbeing measures offer the potential to provide a set of weights that can be used to shape policy priorities. As discussed in Section 4.1, several recent studies have generated wellbeing weights for particular policy-relevant domains by asking people a global wellbeing question followed by several domain specific questions. Although these authors are careful to avoid making firm policy

recommendations – for as yet no study has been able to estimate a comprehensive set of weights, and there may be important interdependencies between domains which are difficult to untangle – the speed of developments in the empirical wellbeing literature makes it likely that more robust estimates of a more comprehensive sets of weights will soon appear.

Wellbeing weights are already employed within the narrower domain of healthcare. In the UK, decisions as to which drugs should be available made at state subsidised prices are made on the basis of a measure of Quality Adjusted Life Years (QALYs). The 'quality' dimension of QALYs is based on asking members of the public to think about how many years of life they would be willing to trade to avoid different states of health.

5.3 Policy Perspectives

As well as providing tools for future policy development, the existing body of knowledge on the determinants of wellbeing already points towards a number of policy perspectives towards the promotion of wellbeing.

On economic wellbeing, a key recommendation of the Stiglitz report is that policymakers should focus more on the distribution of income, and less on simply the average level of income (Stiglitz *et al*., 2009). In wellbeing terms it appears that an income strategy that focused on raising the incomes of the poorest (who may still reap absolute benefits from income) would outperform an across-the-board increase in incomes (the effect of which would largely be lost through people's concern for relative income). The evidence of the damaging effect of economic insecurity on wellbeing provides a rationale for maintenance of the welfare state to act as a 'safety net' (Donovan and Halpern, 2002). Moreover, a stronger case can be made for progressive taxation to prevent people from engaging in damaging income competition (Frank, 1985).

Also, when asked how the government might improve their wellbeing, many people might propose a cut in their tax bill. Therefore, the promotion of wellbeing is entirely consistent with the traditional public sector principles of best value, and minimising public waste. In particular, policymakers need to ensure that the wellbeing they generate for their citizens outweighs the loss of wellbeing entailed by the payment of taxes.

On social wellbeing, studies of wellbeing highlight social capital as an important source of wellbeing. Moreover, the wellbeing created by social capital appears to generate positive externalities for the wellbeing of others, whereas wellbeing created by greater wealth appears to generate the opposite effect. Therefore, the promotion of wellbeing provides a rationale for subsidising activities that encourage people to interact with others in their local area, such as walking groups, book clubs, antenatal classes, voluntary organisations, and local sports teams. It is striking that such activities are technologically simple and require relatively little capital. Nevertheless it can be notoriously difficult for policymakers to, for instance, influence how often people speak to their neighbours. There may, therefore, be an important role for the voluntary and community sector in attempting to deliver these outcomes (Hewes *et al*., 2010).

On health, the promotion of wellbeing suggests the need for a holistic concept of health that embraces psychological and physical 'wellness' as well as illness. We do not yet understand whether there are effective interventions that can systematically improve mental health, but some have argued that "mental resilience" is something that children can be trained to acquire (Bacon *et al*., 2010). The promotion of exercise is strongly supported by wellbeing studies. While the positive effects of exercise on physical health are widely understood, less widely understood is the newer evidence on the link between exercise and mental functioning, especially among the over-60's, although this seems germane to the rising levels of mental illness observed amongst this group.

On environmental wellbeing, the promotion of wellbeing may have implications for, among other things, the concept of sustainable development – defined as "development that meets the needs of the present without compromising the needs of future generations to meet their own needs" (World Commission on Environment and Development, 1987). There are, of course, tensions between wellbeing and sustainability. For instance, switching to public transport might have a positive environmental impact, but simultaneously reduce wellbeing by increasing time spent commuting (Stutzer and Frey, 2008) and reducing the time for recreational activities (Cushman *et al*., 2005).

However, compared to the promotion of economic growth, the promotion of wellbeing appears to offer many more potential synergies with sustainable development. Making short journeys on foot rather than by car is environmentally more sustainable, and is likely to improve wellbeing through greater exercise (Dolan, Peasgood, Dixon *et al*., 2006). Because much wellbeing is derived from social capital and the maintenance of good health, so the pursuit of ever higher living standards could be detrimental to such sources of wellbeing if, for instance, it entails longer working hours or increased environmental degradation.

6 Conclusion

Democratic governments have always been interested in increasing the wellbeing of their citizens. However, while in the past this was a broad and unfocused goal, recent advances in the multi-disciplinary academic literature on wellbeing in relation to the measurement and determinants of wellbeing offer the potential for a more focused approach to the promotion of wellbeing.

Although there are numerous differing conceptualisations of wellbeing, the dominant definition for policy purposes has become an evaluative measure of how people think and feel about their lives. The most common method for measuring wellbeing is through self-reports: asking people to rate their overall satisfaction with their lives on a numerical scale. The reliability of wellbeing data collected in this way has been examined extensively in the literature. Although these data can contain a great deal of noise, the evidence also suggests that they contain a considerable degree of valid variance that might be of relevance to policymakers.

There is already a burgeoning evidence base as to the determinants of wellbeing, although there remain many areas where longitudinal data needs to be brought to bear to

resolve difficult questions of causality. Richer people are, on average, happier but it seems that income is associated with negative wellbeing externalities, with evidence from developed countries that rising GDP is not leading to rises in average wellbeing rates. Non-economic variables, such as measures of social capital, are also found to strongly influence individual wellbeing, but differ from income in that they appear to generate positive externalities for other people's wellbeing. Small, but statistically significant, effects on wellbeing are associated with environmental disamenities such as noise pollution.

Based on these existing findings, the Stiglitz report calls for measures of wellbeing to be reported alongside measures of economic growth (Stiglitz *et al*., 2009). Wellbeing ratings also offer policymakers a means of valuing non-market goods and, more controversially, of providing a set of policy weights that help to inform priorities across different domains. In other instances, the findings reinforce some existing policy positions around the promotion, for instance, of social interaction, volunteering, physical exercise, and the provision of green spaces.

Because what society can measure affects what it chooses to manage, it is likely that the systematic monitoring of wellbeing will, in turn, begin to influence the things that society seeks (Diener and Seligman, 2004). As such, the ultimate effects of the use of wellbeing in public policy cannot be known. However, it is hoped that this review will inform policymakers seeking to utilise measures of wellbeing to inform public policy.

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