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First published 2009 by  
PALGRAVE MACMILLAN

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Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

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ISBN-13: 978-0-230-22429-2 hardback  
ISBN-10: 0-230-22429-6 hardback

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1  
18 17 16 15 14 13 12 11 10 09

Printed and bound in Great Britain by  
CPI Antony Rowe, Chippenham and Eastbourne

# Philosophy and Happiness

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palgrave  
macmillan

# 10

## The Politics of Happiness: Subjective vs. Economic Measures as Measures of Social Well-Being

*Erik Angner*

### 1. Introduction

Though happiness and related mental states have been the object of systematic scientific study since the beginning of the twentieth century, interest in the topic has accelerated rapidly in the last few decades (Angner 2009). By now, psychologists, economists, and other social and behavioral scientists have convinced themselves that it is possible to develop reliable and valid measures of happiness (and the like), and that these measures can be used to study systematically the determinants and distribution of happiness (and such) in the population. The measures, which are often discussed under the heading of 'subjective measures of well-being,' are typically based on direct questions such as 'Taking things all together, how would you say things are these days – would you say you're *very happy*, *pretty happy*, or *not too happy* these days?' (Gurin et al. 1960, p. 411; italics in original). Answers to such questions are used to construct numerical measures of both *individual* well-being (the well-being of persons) and *social* well-being (the well-being of groups).<sup>1</sup>

Encouraged by evidence of reliability and validity, researchers have suggested that subjective measures should be used for a wide range of purposes. In particular, it is frequently argued that subjective measures of social well-being should replace or complement more traditional economic welfare measures – including measures of national income like Gross Domestic Product (GDP), consumer surplus, and equivalent and compensating variation – for purposes of the articulation, implementation, and evaluation of public policy. In this context, the nation of Bhutan is often held up as a model. As reported in a 2005

*New York Times* article titled 'A New Measure of Well-Being From a Happy Little Kingdom,' Bhutanese King Jigme Singye Wangchuck since 1972 makes 'his nation's priority not its G.D.P. but its G.N.H., or gross national happiness' (Revkin 2005). But these ideas have gathered considerable traction in the Western World as well. In Britain, the BBC reports, top politicians on both sides of the political spectrum have expressed an interest in measuring and promoting 'the elusive feel-good factor' (Easton 2006). In France, *Le Monde* takes President Nicolas Sarkozy, in recruiting Nobel Memorial Prize winners Amartya Sen and Joseph Stiglitz to reflect upon the limitations of traditional economic measures, to have opened up for the use of 'subjective elements' like happiness in assessing 'collective performance' (*Le Monde* 2008).<sup>2</sup>

To support these efforts, several researchers have promoted the establishment of 'national well-being accounts' (Kahneman et al. 2004) or 'national indicators of well-being' (Diener and Seligman 2004, p. 21). National well-being accounts (NWBAs) would be analogous to national income and production accounts (NIPAs), but instead of tracking things like agricultural production they would track people's happiness, satisfaction, and so on.<sup>3</sup> According to proponents, NWBAs would be good for social and behavioral scientists, who could use the information in empirical studies, but above all they would be good for policy makers, who could use the data to take practical measures designed to promote well-being (Diener et al. 2008). Hence, 'The most important contribution of a national system of well-being indicators would be that they could focus the attention of policymakers and the public specifically on well-being, and not simply on the production of goods and services' (Diener and Seligman 2004, p. 21). When Ed Diener published a set of guidelines for the development of subjective indicators, while simultaneously endorsing their use to inform policy debates, he was able to recruit 48 co-signatories (Diener 2006).

As the quote in the previous paragraph suggests, the drive for subjective measures to be used as indicators of social well-being is fuelled in large part by widespread dissatisfaction with traditional economic measures.<sup>4</sup> Though economic measures have been criticized on a variety of grounds, two themes are particularly common. Both are evidenced in the broadside attack on the GDP as a measure of social welfare by Clifford Cobb and colleagues (1995). The first is the idea that economic measures like GDP per capita contain no information about how resources are allocated and therefore are indifferent to the distribution of benefits. Hence, 'The GDP totally ignores the distribution of income, for example, so that enormous gains at the top... appear as

new bounty for all' (Cobb et al. 1995, p. 67). The second is the idea that economic measures contain no information about many things that really matter and therefore ignore important values. Among such things, Cobb and colleagues (1995, pp. 66–67) mention the preservation of natural resources, the quality of the environment, and the strength of social structures; they might have added values such as freedom, justice, fairness, and human rights. In particular, it can be argued, measures like GDP per capita contain no information about *how* benefits were accumulated.

For all their evident differences, however, I will argue that traditional economic welfare measures and the now rather fashionable subjective measures of well-being have much in common. My main thesis is that economic and subjective measures – although they differ with respect to the underlying account of individual welfare – in fact are based on the very same account of social welfare. Both economic and subjective measures, I will argue, are applications of the utilitarian social welfare function, according to which social welfare is the total – or equivalently, when the size of the population is constant, the average – welfare of the members of the group. The fact that economic and subjective measures are based on the same social welfare function implies, *inter alia*, that subjective measures of well-being when used as measures of social welfare are vulnerable to many of the criticisms that traditionally have been leveled against economic measures. In particular, they are open to the charge that they are indifferent to distributional concerns as well as to the charge that they neglect to take into account values like the quality of the environment, freedom, justice, fairness, rights, and so on, as independent of well-being.

There are several reasons why philosophers, psychologists, economists, and members of a concerned public should care about the theoretical foundations of alternative welfare measures. Above all, perhaps, the discussion has important practical ramifications. Since subjective measures suggest rather different answers to questions about the determinants and distribution of welfare, as compared to economic indicators, a shift to subjective measures for public policy and other purposes could have vast real-world implications. At the same time, because subjective measures of social well-being have much in common with their economic counterparts, a shift to subjective measures would not address some of the most common complaints against traditional measures. Along the way, I hope to illustrate that much can be gained from a discussion of theoretical foundations: by making explicit fundamental commitments underlying different efforts to measure well-being, we can

achieve a better understanding of both advantages and disadvantages of alternative approaches to welfare measurement.

## 2. The utilitarian social welfare function

In order to argue that subjective and economic welfare measures are based on the same social welfare function, and that this makes them open to the same kind of criticism, I must first say a few things about what this social welfare function is. The utilitarian social welfare function says that the social welfare of a group in state  $S$  equals the sum of individual utilities across all members of the group in  $S$  (Mongin and d'Aspremont 1998, p. 415). It follows that the *change* in social welfare associated with a transition from state  $S$  to state  $S'$  is the difference between the sum of individual utilities in  $S'$  and the sum of individual utilities in  $S$ . Assuming that the population remains constant when going from  $S$  to  $S'$ , the ranking of the two states will remain the same whether we are considering total utility or average utility; in this sense, then, it does not matter whether we use the one or the other. (Below, I will return to the case when the population does not remain constant.)

To explain how problematic features of welfare measures can be traced to the utilitarian social welfare function, I will follow Amartya Sen's exposition as it appears in *Development as Freedom* (1999). Sen argues that the utilitarian social welfare function is based on three different components. Each component tells us something about what counts, and what does not count, from the point of view of social welfare. The first component, *consequentialism*, says that 'all choices (of actions, rules, institutions, and so on) must be judged by their consequences, that is, by the results they generate' (Sen 1999, p. 58). This implies that, once a particular consequence has been specified, the manner in which it was brought about is of no importance from the point of view of social welfare. The process by which some outcome was brought about might have left a mark on that outcome, of course; the point is that processes count only if (and only insofar as) they affect the outcome.

The second component, *welfarism*, 'restricts the judgments of state[s] of affairs to the utilities in the respective states' (Sen 1999, p. 59). As Sen points out, this implies that social welfare rankings do not depend on things like the violation of rights, the fulfillment of duties, and so on as independent of utilities. It is possible that violations of people's rights, and so on will have consequences for their own or other people's welfare; the point is that rights violations and such count only if

(and only insofar as) they have effects on welfare. The third component, *sum-ranking*, 'requires that the utilities of different people be simply summed together to get their aggregate merit' (Sen 1999, p. 59). This is to say that only sum totals (or averages) matter, and that other properties of the underlying distribution of utilities do not. The distribution of resources might affect total welfare, of course: giving the peanut butter to those allergic to nuts might yield less total utility than giving it to those who can eat it, as might giving all the resources to one individual rather than distributing them more equally. Yet, distributions matter only if (and only insofar as) they affect total (or average) utility.

As Sen (1999, pp. 60–61) points out, the utilitarian approach – with its commitment to consequentialism, welfarism, and sum-ranking – has much to be said in its favor. For one thing, the approach mandates that each individual count equally: from the point of view of social welfare, nobody's utility level gets more weight than anybody else's. Yet, the utilitarian approach has also been subjected to much criticism. Sen sums it up by identifying three problematic features of the utilitarian social welfare function. First, there is what he calls *distributional indifference*:

The utilitarian calculus tends to ignore inequalities in the distribution of happiness (only the sum total matters – no matter how unequally distributed). We may be interested in general happiness, and yet want to pay attention not just to 'aggregate' magnitudes, but also to extents of inequalities of happiness.

(Sen 1999, p. 62)

The distributional indifference of the utilitarian function follows directly from sum-ranking, since sums (like averages) do not reflect the shape of the distribution. Second, there is what Sen refers to as *neglect of rights, freedom, and other non-utility concerns*: 'The utilitarian approach attaches no intrinsic importance to claims of rights and freedoms (they are valued only indirectly and only to the extent that they influence utilities)' (Sen 1999, p. 62). The neglect of non-utility concerns follows directly from welfarism, which says that only welfare matters. Third, there is what Sen calls *adaptation and mental conditioning*: 'Even the view the utilitarian approach takes of individual well-being is not very robust, since it can easily be swayed by mental conditioning and adaptive attitudes' (Sen 1999, p. 62). (Because the last point concerns assessments of individual welfare, I will focus on the others.) It should be clear how the

first two problematic features – distributional indifference and neglect of non-utility concerns – can be traced directly to sum-ranking and welfarism.

### 3. Economic welfare measures

Welfare measurement has traditionally been dominated by economists, who have developed a variety of measures. In what follows, I will discuss the three most common kinds of economic social welfare measure. I will show that each measure is an application of the utilitarian social welfare function in the sense that the measure follows logically from the utilitarian social welfare function in combination with some assumption about how to assess individual utility level (or changes in such utility levels). Then, I will explain how the problematic features of economic measures can be traced to the underlying utilitarian social welfare function.

As we will see, proponents of economic welfare measures tend to assume that an individual is well off to the extent that her preferences are satisfied. That is, economic measures are based on preference-satisfaction or desire-fulfillment accounts of well-being (Angner 2009; Hausman and McPherson 2006, p. 64). Notice that the satisfaction of preferences is not the same thing as the feeling of satisfaction or the belief that one's preferences are satisfied; economic measures are intended to represent the former rather than the latter. Because utility is understood as an index of preference satisfaction (Mongin and d'Aspremont 1998, p. 382), economists can legitimately talk about utility – even as identical to well-being – without making any reference to subjective states like happiness, pleasure, and satisfaction. For each of the measures below, we will see that social welfare is assessed as the total or average of individual welfare levels, where individual welfare is understood in terms of preference satisfaction.

*National income.* Efforts by economists to measure welfare go back at least to A. C. Pigou, whose book *The Economics of Welfare* ([1920] 1952) marks the birth of the field of welfare economics. Pigou is quite explicit about his desire to develop an index of welfare. The specific measure he proposes is the *national dividend*, or national income, by which he means 'that part of the objective income of the community, including, of course, income derived from abroad, which can be measured in money' (Pigou 1952, p. 31). Concepts related to the national dividend remain some of the most commonly used measures of welfare. Martha Nussbaum and Sen point out that measures like GDP per capita, in spite

of their well-known shortcomings, 'continue to be widely used when public policy is made' (Nussbaum and Sen 1993, p. 2). The importance of the national product as a measure of well-being helps explain the widespread concern with economic growth: since 'growth' is often used to refer to the first derivative of the national product, and 'growth rate' to refer to the second derivative, high growth (or growth rate) can be seen as an indication of future well-being.

Why would anyone think that a measure of real income represents welfare? Pigou clearly thinks that it does: 'The economic welfare of the country is intimately associated with the size of the national dividend, and changes in economic welfare with changes in the size of the dividend' (Pigou 1952, p. 50).<sup>5</sup> And many economists agree, as illustrated by the following passage:

The output available to satisfy our wants and needs is one important determinant of welfare. Whatever want, need, or social problem engages our attention, we ordinarily can more easily find resources to deal with it when output is large and growing than when it is not.

(Denison 1971, p. 13)

The fundamental idea is that greater output makes it possible to satisfy our wants and needs – that is, our preferences – to a greater degree; on the assumption that we are rational, this implies that we will. Modern economic theory, however, permits a far more sophisticated answer. Given a number of assumptions, for example, about the rationality of individuals and the nature of the budget set, and holding prices fixed, it can be shown that utility (understood in terms of preference satisfaction) is strictly increasing in individual wealth (Mas-Colell et al. 1995, p. 56). That is to say, under certain assumptions, wealth can be shown to be a utility function. Assuming that total wealth is the sum of individual wealth, and that individual wealth corresponds to individual welfare, the utilitarian social welfare function implies that total wealth corresponds to social welfare.

*Consumer/producer surplus.* An alternative way to evaluate the welfare consequences of policy interventions is in terms of *consumer surplus* (CS) and *producer surplus* (PS). The notion of consumer surplus goes back to Jules Dupuit ([1844] 1969), who wished to determine the conditions under which public works – such as the building of a bridge – can 'be declared of public utility' (Dupuit 1969, p. 255). Dupuit's ideas were developed and popularized by Alfred Marshall ([1890] 1920), who defines the consumer surplus of a good as '[the] excess of the

price which [the consumer] would be willing to pay rather than go without the thing, over that which he actually does pay' (Marshall 1920, p. 124). The notions of CS/PS are widely used to evaluate the consequences of public policy. Hence, 'Consumer surplus is the overwhelming choice as a welfare indicator' (Slesnick 1998, p. 2110). Moreover, CS/PS is the tool preferred by many economics textbooks when evaluating the welfare consequences, for example, of interventions like price ceilings and trade restrictions (cf. Mankiw 2001, 'Part III: Markets and Welfare'). *Total surplus* is the sum of consumer and producer surplus.

What is the justification for using total surplus as a measure of social welfare? The idea is that a person's willingness-to-pay for a good reflects her *marginal valuation*, that is, what the thing is worth to her on the margin. This is the amount of money such that she would be indifferent between receiving one unit of the good and receiving the dollar amount for sure. Under certain assumptions about the rationality of the consumer, and so on, it can be shown formally that an increase in consumer surplus corresponds to an increase in utility (Mas-Colell et al. 1995, p. 83). Thus, 'One could say that consumer surplus expresses in observable monetary units an unobservable gain in utility; [by means of the notion of a consumer surplus] we transform the measurement problem from an unobservable dimension (utility) to an observable one (dollars)' (Johansson 1991, p. 41). On the assumption that individual surplus corresponds to individual utility, the utilitarian social welfare function implies that total surplus corresponds to social welfare.

*Compensating/equivalent variation.* Yet another set of measures evolve around the concepts of *compensating variation* (CV) and *equivalent variation* (EV). These notions were developed in a series of publications by John R. Hicks (e.g., 1943), who had noted certain technical difficulties associated with surplus measures. The CV is 'the amount of money, which when taken away from an individual after an economic change, leaves the person just as well off as before,' while the EV is 'the amount of money paid to an individual which, if an economic change does not happen, leaves the individual just as well off as if the change had occurred' (Just et al. 2004, p. 9). CV/EV measures are used in many contexts to assess changes in welfare. Hence:

In cost-benefit analysis and other exercises in applied welfare economics, *aggregate willingness-to-pay* – the simple sum of Hicksian compensating variations, is often used as a test. A positive sum is

taken as evidence of a social improvement or an increase in economic efficiency.

(Blackorby and Donaldson 1990, p. 472; italics in original)

As this quote indicates, aggregate CV or EV is computed by adding up individual compensating or equivalent variations.

Why should measures of aggregate CV/EV be treated as social welfare measures? Here is the basic idea: 'The motivation for the Hicksian measures is that *an observable alternative for measuring the intensities of preferences of an individual for one situation versus another is the amount of money the individual is willing to pay or willing to accept to move from one situation to another*' (Just et al. 2004, p. 9; italics in original). The idea is that willingness-to-pay and willingness-to-accept measures reflect utilities (in the sense of degrees of preference satisfaction) in alternative states. Indeed, it can be demonstrated formally that under a wide range of conditions, CV/EV measures are utility functions (Mas-Colell et al. 1995, pp. 81–82). On the assumption that individual CV/EV corresponds to individual utility, the utilitarian social welfare function implies that aggregate CV/EV corresponds to social welfare.

Given that economic measures of all three kinds are straightforward applications of the utilitarian social welfare function, it should not be surprising that Sen's three components of the utilitarian social welfare function are implicit in these measures. First, each measure satisfies consequentialism, since what matters is the utility of outcomes, which are bundles of goods. Once an outcome has been specified, the process by which individuals achieved their bundles has no impact on utilities. Second, each measure satisfies welfarism, since social welfare is a function of individual welfare alone. Hence, values like rights, duties, and so on have no impact on social welfare above and beyond their effect on individual utilities. Third, each measure satisfies sum-ranking, since aggregate measures are obtained by adding or averaging over individual utility levels. Thus, holding total or average utility constant, the distribution of utilities has no social welfare implications.<sup>6</sup>

Since economic measures are applications of the utilitarian social welfare function, and since this function is associated with several problematic features (including distributional indifference and neglect of non-utility concerns), it should not be surprising that orthodox economic measures have been criticized precisely, first, for being indifferent to distributional concerns, and second, for ignoring important values like justice, fairness, rights, and the quality of the environment. In fact,

I hope to have shown that it is fair to say that the two problematic features of economic measures can be traced directly to the underlying utilitarian social welfare function. In the next section, I will argue that subjective measures – in spite of their evident differences – are based on the very same social welfare function and therefore are open to many of the same charges.

#### 4. Subjective measures of well-being

Although subjective measures of well-being are often described as a relatively recent phenomenon, their history can be traced back to the early twentieth century. Subjective measures appear to have emerged in studies into marital success and educational psychology in the 1920s and 1930s, and to have gained currency in the 1960s as a result of developments in gerontology, the epidemiology of mental health, and the social indicator movement; more recently, they have been highlighted by the emergence of the positive psychology movement in the 1990s (Angner 2009). In what follows, I will discuss some of the most common kinds of subjective measure of social well-being. I will show that such measures are straightforward application of the utilitarian social welfare function in the exact same sense as economic measures are.

As we will see, proponents of subjective measures of well-being tend to assume that an individual is well off to the extent that she is in some particular mental state (or states), whether happiness, satisfaction, or similar. That is, subjective measures are based on mental state accounts of well-being (Angner, in press). Consider the following passage: 'Subjective well-being research [...] is concerned with individuals' subjective experiences of their lives. The underlying assumption is that well-being can be defined by people's conscious experiences – in terms of hedonic feelings or cognitive satisfactions' (Diener and Suh 1997, p. 191). Notice that Diener and Suh argue that well-being is not only *concerned* with individual's subjective experiences, but is *defined* by them. For each of the measures below, we will see that social welfare is assessed as the total or average of individual welfare levels, where individual welfare is understood in terms of some mental state (or states).

Subjective measures are typically based on data gathered using questionnaires or interviews, though more sophisticated tools like Palm Pilots have been employed too.<sup>7</sup> Many researchers use a direct question like that quoted in the Introduction. Others use small batteries

of questions. For instance, the widely used Subjective Happiness Scale (Lyubomirsky and Lepper 1999) has four questions, including:

1. In general, I consider myself:

1	2	3	4	5	6	7
Not a very happy person				A very happy person		

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
Less happy			More happy			

(Lyubomirsky and Lepper 1999, p. 151)

After subjects have circled one number for each of the four questions, a total happiness score is computed as the average of the four answers, with the last one reverse scored (Lyubomirsky and Lepper 1999, p. 41).

The history of subjective measures offers a fascinating range of methods used to elicit subjects' happiness, satisfaction, and so on (cf. Angner 2009). In one pioneering study, Goodwin Watson (1930) asks subjects whether they satisfy descriptions like: 'Cheerful, gay spirits most of the time. Occasionally bothered by something but can usually laugh it off,' 'Ups and downs, now happy about things, now depressed. About balanced in the long run,' and 'Life often seems so worthless that there is little to keep one going. Nothing matters very much, there has been so much of hurt that laughter would be empty mockery' (Watson 1930, p. 81). Hornell Hart (1940) gives subjects 24 synonyms and 24 antonyms of 'happy,' and asks them to circle words that apply and cross out words that do not apply to them. Hadley Cantril (1965, p. 22) relies on a 'ladder of life': a ladder-like shape where the rungs have been numbered from 0 to 10. The subject is told, 'Here is a picture of a ladder. Suppose we say that the top of the ladder (POINTING) represents the best possible life for you and the bottom (POINTING) represents the worst possible life for you,' and asked, 'Where on the ladder (MOVING FINGER RAPIDLY UP AND DOWN THE LADDER) do you feel you personally stand at the *present* time?' (Cantril 1965, p. 23).<sup>8</sup> In every case, a single quantitative measure of well-being is computed on the basis of the answers.

More recently, Daniel Kahneman and Alan B. Krueger (2006) have suggested the use of a measure they call the *U-index*. The U-index is clearly

intended to be a measure of social well-being, as it is introduced under the heading of 'A Measure of Society's Well-Being.' The 'U' stands for 'unpleasant' or 'undesirable,' and the index 'measures the proportion of time an individual spends in an unpleasant state' (Kahneman and Krueger 2006, p. 18). The two use data collected using so-called 'Experience Sampling' or 'Day Reconstruction' methods, which give a dense record of an individual's emotional state along several dimensions of feeling over time. An episode gets classified as unpleasant or undesirable 'if the most intense feeling reported for that episode is a negative one – that is, if the highest rating on any of the negative affect dimensions is strictly greater than the maximum of rating of the positive affect dimensions' (Kahneman and Krueger 2006, p. 19). The U-index, which will be a number between zero and one, is easily computed as the fraction of equally long episodes so classified.

To construct a measure of individual well-being, researchers assign a number to a person based on his or her response to direct questions about his or her mental state(s). Psychologists do not deny that the use of happiness self-reports may lead to measurement artifacts, but nevertheless argue that there is ample evidence supporting the reliability and validity of subjective measures (cf. Diener and Suh 1999, pp. 436–38). First, subjective measures are thought to exhibit adequate test-retest reliability and convergent validity, in the sense that they are sufficiently correlated with happiness ratings of friends and family, psychologists' judgments, amount of smiling, and inversely correlated with depression. Second, subjective measures are thought to exhibit adequate discriminant validity, in that they are not overly correlated with general intelligence, current mood, humility, the language in which the question was asked, and the like. Though a discussion of the shortcomings of these measures is ongoing, scientific research these days focuses relatively less on establishing reliability and validity and more on examining empirical relationships.

Relying on subjective measures of well-being, psychologists claim to have established several empirical phenomena. For one thing, many studies find that there is only a weak relation between income and subjective well-being (SWB) and that the effect diminishes with increasing income. As Ed Diener and Robert Biswas-Diener write, 'for middle and upper-income people in economically developed nations, acquiring more income is not likely to strongly enhance SWB. Indeed, some studies find that rising wages predict less well-being' (Diener and Biswas-Diener 2002, p. 161). Psychologists have concluded that even rapid economic growth is not in general associated with measurable

increases in subjective well-being (Diener and Biswas-Diener 2002, p. 139), but that people who live in rich countries are on the average happier than people living in poor countries (Diener and Biswas-Diener 2002, p. 136). These results – and others like them – are often explained by reference point phenomena (Argyle 1999), adaptation (Frederick and Loewenstein 1999), and misprediction (Loewenstein and Schkade 1999). Though provisional, these findings indicate that subjective measures will give rather different answers to questions about the determinants and distribution of well-being as compared to economic measures. This supports the contention that a shift from economic to subjective measures of well-being for public policy purposes could have a potentially dramatic impact.

To construct a measure of social well-being for some group, researchers typically take the simple average of the scores of the members of the group. As Rafael Di Tella and Robert MacCulloch note, 'a large fraction of the happiness literature in economics is based on comparing average happiness scores for large numbers of people' (Di Tella and MacCulloch 2006, p. 29). When researchers compare different nations, for example, they typically compute the mean happiness or satisfaction score in each nation and compare and contrast those levels (Diener and Suh 1999, p. 435; cf. Diener 2000, p. 39). To get a measure of social well-being based on the U-index, Kahneman and Krueger propose that the 'U-index can be computed for each individual [...] and averaged over a sample of individuals' (Kahneman and Krueger 2006, p. 20). On the assumption that the number assigned to an individual by some subjective measure corresponds to her well-being, the utilitarian social welfare function implies that the average of such scores corresponds to social welfare. The most commonly used subjective measures of social well-being, then, are applications of the utilitarian social welfare function in the same sense as economic measures are.

Because the typical subjective measure of social well-being is an application of the utilitarian social welfare function, it is unsurprising that the three components of that function are implicit in subjective measures too. First, subjective measures satisfy consequentialism, since only outcomes – specifically, the degree to which individuals end up happy, satisfied, and so on – matter. The processes by which an outcome obtains are taken into account only if (and only insofar as) they have an effect on the outcome. Second, subjective measures satisfy welfarism, since nothing but welfare – here, understood in terms of mental states – matters from the point of view of social welfare. Other values are taken into account only if (and insofar as) they have an effect on welfare so

understood. Third, subjective measures satisfy sum-ranking, since social welfare is a simple sum or average of individual welfare levels. That is, properties of the distribution of welfare matter only if (and only insofar as) they affect sum totals or averages.

It is equally unsurprising that subjective measures of social well-being are open to many of the same criticisms as traditional economic measures are. First, subjective measures are indifferent to the distribution of benefits: holding averages constant, whether happiness and other mental states are equally or unequally distributed across the population has no impact on subjective measures of social well-being. Second, subjective measures of well-being neglect values other than welfare (understood in terms of mental states): whether high happiness scores were obtained because people live free, dignified lives or because they are happy slaves has no effect. This latter point is particularly important in light of (apparent) phenomena like adaptation: measures of subjective well-being contain no information about whether people are in some positive mental state because they have lived successful lives in which all their truest goals have been reached, or because their goals and aspirations have been so stunted by deprivation and oppression that they have decided to be happy anyway.

Not all researchers construct subjective measures of social well-being by averaging over the sample. Some researchers use other measures of central tendency like the median (cf. Angner et al. in press); some assess social welfare by the fraction of participants who answered 'very happy' in response to a question like that quoted in the Introduction (see, e.g., Easterlin 1974). Measures constructed in this way are not applications of the utilitarian social welfare function as it has been defined here. It is worth noting that departures from the additive function appear motivated not by a rejection of the utilitarian welfare function as much as by features of the data. Angner and colleagues use medians rather than means because happiness scores are strongly negatively skewed; Easterlin uses 'percent very happy' figures because individual responses are on a three-point, ordinal scale. Thus, these authors do not necessarily reject the utilitarian account of social welfare; they may simply operate under constraints that make the use of the function inappropriate. No matter, the use of medians or 'percent very happy' figures are open to the very same charges as the use of means is. The median is no more sensitive to the shape of the distribution than the mean is, and the fact that fraction  $x$  of the population is 'very happy' ignores whether the remaining  $1-x$  is 'pretty happy' or 'not too happy.' In addition, of course, neither approach pays attention to values other than welfare.

Hence, subjective measures of social well-being based on medians or 'percent very happy' figures exhibit both distributional indifference and neglect of non-utility concerns.

## 5. Discussion

In this chapter, I have compared the now rather fashionable subjective measures of social well-being to more traditional economic welfare measures. We have seen that there are, in fact, important differences. Perhaps the most important difference relates to the underlying accounts of individual well-being. Proponents of economic welfare measures typically assume that welfare is a matter of preference satisfaction. That is, economic measures are based on preference-satisfaction or desire-fulfillment accounts of well-being. Meanwhile, proponents of subjective measures of well-being typically assume that well-being is a matter of being in a certain mental state. That is, subjective measures are based on mental state accounts of well-being. Angner (2009) argues that economic and subjective measures also presuppose different approaches to measurement. While economic measures tend to be justified by reference to observable orderings, subjective measures are designed to represent 'latent,' unobservable, constructs. Thus, economic and subjective measures differ both when it comes to accounts of well-being and approaches to measurement.

For all their evident differences, however, I have argued that subjective measures in fact are based on the very same social welfare function as economic measures are. It should not be surprising, then, that they have many features in common or that many of the charges that have traditionally been leveled against economic measures can also be leveled against subjective measures. In particular, subjective measures are open to the charge that they are indifferent to distributional concerns and to the charge that they neglect to take into account important values other than welfare. This conclusion holds whether the measure of social welfare is constructed using the mean, the median, or the 'percent very happy' figure. Commonalities between economic and subjective measures have so far received little attention in the literature, which tends to emphasize the differences.

It might be thought that my argument to the effect that subjective measures are indifferent to the distribution of benefits is undermined by the fact that subjective measures can be used to compare welfare levels of men and women, the healthy and the unhealthy, and so on. It should be noted, however, that when comparing welfare levels of

men and women, for example, measures of individual well-being are used to construct two measures of social well-being – one for men and one for women – which are then compared with each other. And each of these measures is insensitive to the distribution of benefits in the population it concerns. In this regard, in fact, subjective measures are perfectly analogous to economic measures, which are frequently used to assess things like income inequality, that is, inequality in the distribution of incomes. Thus, the claim that subjective measures can be used to examine (happiness) inequality is no more an argument against the thesis that subjective measures exhibit distributional indifference, than the claim that economic measures can be used to examine (income) inequality is an argument against the thesis that economic measures exhibit distributional indifference. As soon as an aggregate measure is computed using the mean (or similar), some information about the distribution is lost.

It is possible that proponents of NWBAs are aware of the problems associated with subjective measures. This would explain, for example, why some authors insist that subjective measures of social well-being and NWBAs should complement rather than substitute for traditional economic measures and NIPAs. For example, Diener and co-authors

[...] take care not to claim [...] that subjective well-being measures should dominate policy considerations or replace other useful measures, but instead take the more moderate view that subjective well-being measures can add useful information to the existing national accounts of quality of life.

(Diener et al. 2008, p. 41; cf. Diener and Suh 1999, p. 448)

Yet, insofar as the new measures face the same problems as the old ones, it is far from obvious that using the former as a complement to the latter will help us overcome those problems. It can, plausibly, be argued that a combination of subjective and economic measures is superior because although both neglect important values, the two neglect *different* important values. Still, the degree to which this move helps overcome the problem is uncertain, and it does not address the issue of distributional indifference. Moreover, it can be maintained that the use of some combination of measures might be worse, insofar as it falsely instills the confidence that obstacles have been overcome.<sup>9</sup>

Until now, I have assumed that the population is constant, so that social welfare functions based on total and average utility yield the same

rankings. In reality, of course, the assumption is often not warranted, so rankings based on total and average utility need not coincide. If so, we must draw a distinction between *total* utilitarianism, according to which social welfare is the total utility in the population, and *average* utilitarianism, according to which social welfare is the average utility (Hausman and McPherson 2006, p. 102). Because subjective measures of social well-being are constructed using averages rather than totals, such measures are applications of the average utilitarian social welfare function. The difference might seem arcane, but there are contexts where it matters. Consider, for example, the empirical finding that patients who have been diagnosed with cancer are in general no less happy than those who have not (Angner et al. in press). Such results may be attributed in part to the fact that the studies in question only sample the living, and therefore in effect compare cancer survivors to those who were never diagnosed with the disease (thus giving no weight to patients who did not survive the disease).

This point is closely related to what has become known as the *repugnant conclusion*: the implication that the elimination of individuals of below-average welfare increases social welfare, whereas the generation of such individuals decreases it (provided, in both cases, the elimination or generation of such individuals does not affect others' welfare levels) (Hausman and McPherson 2006, pp. 102–03). The repugnant conclusion is a major challenge for average utilitarians, and it obviously affects subjective measures of social well-being as well. Notice that the repugnant conclusion also affects economic measures based on averages, like GDP per capita: the elimination of individuals whose contribution to GDP is below average would seem to increase social welfare, whereas the generation of such individuals would seem to decrease it. (This particular problem is not an issue for measures based on total utility, like CS/PS and CV/EV measures, though total utilitarianism has issues of its own.)

Either way, I hope to have shown that much can be gained from a discussion of philosophical foundations of alternative measures of well-being. By taking explicit account of philosophical foundations in general, and underlying accounts of individual and social welfare in particular, it is possible to identify interesting features of both subjective and economic measures. The identification of such features, in turn, permits a more informed assessment of relative advantages and disadvantages of the measures. Indeed, it can be argued that some attention to philosophical foundations is unavoidable: a complete defense of a given welfare measure might have to say something, for example,

about the nature of welfare. Thus, whether our goal is to understand, attack, or defend, a given approach to welfare measurement, attention to fundamental assumptions is well worthwhile.

### Acknowledgments

I am grateful to the organizers of and participants in the Happiness and Meaning of Life Workshop at the University of Birmingham for thoughtful input and to Lisa Bortolotti, Havi Carel, Larry James, and Don Ross for feedback on an earlier draft. Errors remain my own.

### Notes

1. Following standard practice in the literature, I will use the terms 'well-being,' 'welfare,' and 'utility' interchangeably.
2. Translations are my own.
3. In the United States, the task of developing NIPAs was assigned to Simon Kuznets in the early 1930s. Kuznets – who would be awarded the 1971 Nobel Memorial Prize – originally conceived of these accounts as a vehicle for exploring issues of distribution and consumption, social justice and social welfare, as well as production. Changing priorities during World War II drastically and permanently reshaped them, however, leaving Kuznets hugely disappointed and sharply critical of the accounts and their use in assessments of social well-being (Perlman and Marietta 2005).
4. Some dissatisfaction with economic indicators is evident in most writings on national well-being accounts (cf. Diener 2000, pp. 40–41; Diener and Seligman 2004, pp. 21–22; Kahneman et al. 2004, p. 433; Diener et al. 2008, p. 40; Diener and Tov 2007).
5. While Pigou is careful to draw a distinction between 'welfare' and 'economic welfare,' 'that part of social welfare that can be brought directly or indirectly into relation with the measuring-rod of money,' he nevertheless proceeds on the presumption that changes in the latter will correspond to changes in the former (Pigou 1952, p. 11; cf. p. 20).
6. Though economists sometimes argue that interpersonal comparisons of utility are impossible (Sen 1999, p. 303, n. 6), most economic welfare measures (as we have seen) in fact do assume that it is meaningful to add or average individual utilities.
7. For a useful overview of empirical research using subjective measures, see, for example, Diener and Seligman (2004).
8. The parenthetical notes in small caps are Cantril's instructions to the experimenter.
9. See Angner (2006) for an extended discussion of problems associated with overconfidence among economists.