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Human Well-being: Issues, Concepts and Measures

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Introduction

National governments, civil society organizations and international agencies have for many years assembled and reported data on achieved human well-being, be it for individuals, families, regions or countries. Human well-being achievement at the level of countries receives special attention. It is now commonplace for international agencies, such as the United Nations Development Programme (UNDP) and the World Bank, to publish annual reports that rank countries according to various well-being or well-being related indicators.

These eagerly awaited reports receive much attention, in particular from national governments wanting to see where their country ranks internationally, and especially relative to neighbouring countries or those with which they have links. It is not uncommon for a positive outcome, be it a move up the league tables or consistently high rankings, to be attributed to specific policy interventions. Poor outcomes are linked either to an absence of appropriate policies, or the presence of inappropriate ones – or both. While one can question whether such attribution is always valid, achieved well-being measures are seen as important tools, used in the design and evaluation of policies, both domestic and international.

Well-being indicators are also used to measure progress towards various benchmarks or goals set by the international community. These include the 'Education for All' and 'Health for All' goals set in 1978 and 1990, respectively. More recently and ambitiously, the international community agreed at the United Nations Millennium Summit in 2000 to adopt the now very well-known Millennium Development Goals (MDGs). Unanimously adopted by the UN member states, these goals involve the attainment of various well-being or related benchmarks or targets, defined in terms of corresponding indicators. The Education for All and Health for All goals involved achieving universal primary education and universal access to health care, worldwide,

by 2000. The MDGs are more ambitious, both in the nature and number of targets. Fundamentally, they aim at reducing worldwide the proportion of people living in extreme income poverty and suffering from hunger to half the levels of 1990 by 2015. They also aim to achieve various targets in education and health by 2015 (UN Millennium Project Report 2005).

Countries that fall well short of agreed targets or benchmarks as such can expect, ceteris paribus, to receive more support from the international community, in the form of aid and other interventions aimed at increasing levels of achieved well-being. International donors are often urged to increase aid levels based on gaps between these benchmarks and actual well-being levels. The UN Millennium Project Report in 2005, for instance, called on the international donor community to double official aid levels so that the MDGs can be achieved. More generally, the agencies of international aid donors make much use of well-being indicators in the design, implementation and evaluation of aid and related policies.

Human well-being achievement has not only been the focus of the above-mentioned organizations; it has for many decades been extensively researched, attracting attention from numerous academic disciplines within the social sciences. This research has come a long way in recent years, responding to changing global conditions, new research priorities, more sophisticated conceptualizations and improved data resources. Yet many measurement and conceptual issues still require attention and some of the most widely used well-being measures should be interpreted with great care. There is, in particular, no one conceptualization or measure that is accepted above all others.

Human Well-being: Concept and Measurement aims to provide insights into how human well-being might be better conceptualized and measured. It does this by taking stock of – and reviewing – research directions, assessing efforts over recent decades to conceptualize and, in particular, measure human well being achievement. The main focus of this volume is national human well-being achievement, cross-country comparisons in particular. Given its overall survey orientation, the volume does not set out substantively to develop new measures or conceptualizations. It does, however, point to many new areas that subsequent research should address, with a view to developing better ways of understanding and measuring achieved well-being. The volume also provides some cautions on the use of existing measures. These pointers and cautions are original contributions to the research literature.

This first chapter provides a broad descriptive sketch of well-being research, focusing primarily on attempts to measure achieved well-being, but also on various well-being conceptualizations. This sketch is intended to: (i) describe and compare various well-being conceptualizations that have emerged in recent decades; (ii) provide a brief history of research on developing well-being measures; (iii) describe and compare characteristics of various well-known or widely-used well-being and related measures; (iv) discuss how the

construction of various well-being measures relate (or should relate) to the intended application; and (v) provide a backdrop for the nine chapters that follow, each of which picks up and examines in much more detail a number of the concepts or measures introduced.

The coverage of the sketch, and the volume as a whole, therefore, is selective. But it is intended to focus on the main issues examined in the research literature in recent decades and, in particular, on those measures that have been most widely reported and used internationally by policy makers and other practitioners. The coverage also reflects the fundamental premise that well-being should be seen as a multidimensional concept, encompassing many diverse dimensions. It is no coincidence, therefore, that much of the research examined in this volume has been motivated by the recognition that income-based measures of well-being, which have for many decades been dominant in well-being assessments, do not adequately capture these dimensions and a number of related factors.

The remainder of this chapter is structured as follows. The next two sections provide the above-mentioned sketch of the literature, looking at conceptualization and measures. A brief outline of the contents of Chapters 2 to 10 then follows, before highlighting some of the recommendations for future research provided for herein. The final section offers some additional recommendations.

Well-being conceptualizations

Many different well-being conceptualizations have been provided but, as Gasper (2002), Travers and Richardson (1997) and others point out, the term 'well-being' is a concept or abstraction used to refer to whatever is assessed in an evaluation of a person's life situation or 'being'. In short, it is a description of the state of individuals' life situation. An array of different terms has appeared in the research literature to label this situation. Along with well-being, the most common ones include the quality of life, living standards and human development. Others include welfare, social welfare, well-living, utility, life satisfaction, prosperity, needs fulfilment, development, empowerment, capability expansion, poverty, human poverty and, more recently, happiness. Some have distinct meanings, but there is usually a high degree of overlap in underlying meanings. Individual studies tend to adopt a particular term, others use different terms interchangedly. Easterlin (2001), for example, goes so far as to equate explicitly happiness, subjective well-being, satisfaction, utility, well-being, and welfare. Similarly, McGillivray (2005) equates human well-being, quality of human life, human development and basic human needs fulfilment.

Early well-being conceptualizations were utilitarian, often reducing well-being to well-feeling (or pleasure) and further reducing it to the scalar

of unitary pleasure or utility (Gasper 2004). It subsequently became more common, and arguably appropriate, to treat well-being as a multidimensional concept. Better known multi-dimensional conceptualizations include the capabilities approach (Sen 1982, 1985, 1993, among many other publications), the basic human values approach (Grisez *et al.* 1987), the intermediate needs approach (Doyal and Gough 1991, 1993), the universal psychological needs approach (Ramsay 1992), the axiological categories approach (Max-Neef 1993), the universal human values approach (Schwartz 1994), the domains of subjective well-being approach (Cummins 1996), the dimensions of well-being approach (Narayan *et al.* 2000), and the central human capabilities approach (Nussbaum 2000). Other contributions to the literature include Andrews and Withey (1976), Stewart (1985), Lasswell (1992), Allardt (1993), Rawls (1993), Galtung (1994) and Qizilbash (1996a, 1996b).[1]

Many well-being dimensions have been identified. The list is extremely diverse, covering such aspects as knowledge, friendship, self-expression, affiliation, bodily integrity, health, economic security, freedom, affection, wealth, and leisure (Alkire 2002). The fundamental nature of dimensions has received much attention. Finnis (1980) argues that dimensions are: (i) self evident, in that they are potentially recognizable by anyone; (ii) incommensurable, in the sense that all of the desirable qualities of one are not present in the other; (iii) and irreducible, as there is no one denominator to which they can be totally reduced; and (iv) non-hierarchical, since at any point in time any one dimension can seem to be the most important (Alkire 2002). Doyal and Gough (1991: 5) consider universal needs, which 'apply to everyone in the same way'. As in Alkire (2002), these needs are not seen as well-being itself, but preconditions of well-being. Doyal and Gough conclude that universal needs do exist, and that vectors of basic and intermediate needs and degrees of need satisfaction can be identified. They identify two universal basic needs: physical health and autonomy of agency, the latter defined as the capacity to initiate and act through the formulation of aims and beliefs (Doyal and Gough 1991).

The most influential well-being conceptualization, arguably, is the abovementioned capabilities approach of Amartya Sen. A person's capability, according to this approach, reflects the alternative combinations of 'functionings' a person can achieve, and from which they can choose a particular collection. Functionings, in turn, are the 'parts of the state of person – in particular the things that he or she manages to do or be in leading a life' (Sen 1993: 31). Well-being is assessed in terms of the capability to achieve valuable functionings. In contrast to much of the literature, Sen resists identifying a set of capabilities on the grounds it is a value judgement that needs to be made explicitly, in many cases through a process of public debate (Sen 1999).[2]

Well-being measures

Attempts to measure well-being achievement have largely followed developments in the conceptualization of well-being. These include attempts to measure this achievement at the level of nations, often using national averages of chosen variables. Early attempts to assess these achievements, dating back to the 1940s, relied on some measure of national income per capita. This is consistent with the utilitarian conceptualization of well-being. Higher income allows for higher consumption and this provides greater utility. Income was thus the metric that conveyed utility. These attempts were also consistent with the national economic strategies that sought to maximize growth of income per capita, with some correction for externalities and distribution (Alkire 2002). The most popular measures of national income per capita are Gross National Income (GNI) per capita or Gross Domestic Product (GDP) per capita. The former is also known as Gross National Product (GNP) per capita. Data for these measures are very widely reported and extensively used. The World Bank, for example, in its *World Development Reports*, for many years since 1977 ranked countries in terms of achieved GNPs or GNIs per capita measured in United States dollars using weighted average prices and exchange rates (World Bank 1977–2004). It has also reported comprehensive cross-country income per capita data since 1969 in its *World Bank Atlas* (World Bank 1969–2004).

Differences in domestic price levels between countries are obviously important in income-based assessments of well-being achievement between countries. For this reason, purchasing power parity (PPP) estimates of national income per capita are being used increasingly. GNIs and GDPs per capita are converted into international dollars using PPP conversion factors. One international dollar, at the PPP rate, has the same purchasing power over domestic GNI as the US dollar has over US GNI. PPP conversion factors are currently derived from price surveys in 118 countries (World Bank 2004). The *World Development Report 2004* reports PPP GNI per capita data for 170 countries while the *Human Development Report 2004* reports PPP GDP per capita data for 177 countries (World Bank 2004, UNDP 2004). For many countries, these data are obtained using estimated PPP conversion factors. The most recent conversion factors for OECD countries are based on surveys conducted in 2000, with the remainder either based on surveys conducted in 1993, 1996 or earlier years (World Bank 2004).

Limitations of income per capita as an indicator of human well-being are well-known and often repeated. If we accept that well-being is multidimensional, then it at best captures only one of its many dimensions. It might well be correlated with other measures, but even then one would realistically expect that it cannot fully capture the essence of the various well-being conceptualizations (McGillivray 2005). Sen (1985) points out that the use of income per capita reduced well-being to being well-off or, put differently,

to having much. What was important to Sen is not the level of income per capita per se but how income is used or what it finances. Will expenditure on tobacco, gambling, narcotics, and alcohol necessarily increase well-being at all levels of expenditure? One would think not. A broadly similar criticism of income as a measure of well-being has been expressed by the UNDP in its early *Human Development Reports*. In the 1990 report it emphasized that 'income is a means, not an end', observing that an excessive pre-occupation among policy makers and others with GNP growth had obscured that perspective (UNDP 1990: 9–10). In making this point, the UNDP invoked the teachings of Aristotle, who warned that 'wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else' (UNDP 1990: 9). While wealth and income are different concepts, the same basic message applies to both.

Hicks and Streeten (1979: 568) observe that 'problems inherent in using GNP as a measure of social welfare have been recognized almost since the inception of national income accounting'. They point to a long history of endeavours to address this issue quantitatively, including adjustments to GNP and the development of non-monetary measures of social progress in the form of so-called social indicators. The former adjustments include PPP conversions, which date back to the work of Clark (1940). Nordhaus and Tobin (1972) adjusted GNP to obtain the Measure of Economic Welfare (MEW). The MEW was obtained by deducting from GNP an allowance for defence expenditure, pollution, congestion, and crime, and adding an estimate for the value of leisure and services of consumer durables (Hicks and Streeten 1979). There have also been attempts to adjust GNP per capita according to how it is distributed among population sub-groups. This is an explicit acknowledgement that per capita income, as many other indicators, is simply a national mean or average that says nothing about how the total cake of a country is divided. An early attempt to adjust GNP in this way is that of Ahluwalia and Chenery (1974), who proposed measures based on weighted shares of the growth rate of GNP by population sub-groups. The weights are interpreted as welfare weights, and can be defined either in terms of the share of total income or population of each group (divided into quintiles), or in terms of the priorities assigned to improving the welfare of each group. There have been many subsequent attempts to modify GNP and other per capita national income measures.[3] Yet, despite these attempts and the well-known weaknesses of such measures, and alternative non- or non-exclusively income-based measures, 'GNP per capita continues to be regarded as the "quintessential" well-being indicator' (Dasgupta 2001: 53).

Broadly similar measures to those of Ahluwalia and Chenery (1974) have resulted not from attempts to adjust GNP per capita or other national income measures, but from efforts to construct better income based measures per se. They are consistent to varying degrees with the utilitarian conceptualization. Some are explicit well-being or welfare measures; others are income poverty

measures. The latter provide well-being information only on those people living in poverty, but not others. As such, they are only partial measures of well-being achievement if applied at the national level. A general class of the former treats well-being as an increasing function of mean income and a decreasing function of the measured level of inequality.[4] A well-known example of these measures is the Shorrocks (1983) Generalized Lorenz Curve (GLC), which takes the standard Lorenz curve and scales it by the mean income of the distribution. As such, the GLC defines social welfare in terms of both equity and efficiency, the latter defined by the level of mean income.

The best known and most widely used income poverty measure is the headcount, typically defined as the number or proportion of the national population whose income falls below the chosen poverty line. A headcount measure of extreme income poverty, used to track progress towards the MDG poverty target, is the number of people living on less than one US$ PPP per day. The headcount does not provide information on the extent to which the incomes of those living in poverty fall below the poverty line. Put differently, it does not indicate the extent of immiseration, merely its existence. The poverty (or income) gap measure attempts this, by adjusting the headcount on the basis of the gap between the poverty line and the average income of those living below the line, in the population group under consideration. As such, it is interpreted as both a measure of poverty and of the amount of money required to raise the incomes of the poor to the poverty line (Blackwood and Lynch 1994). More elaborate measures have been proposed by Sen (1976) and Foster *et al*. (1984), among others. The Sen Index combines the income gap, the headcount, and the distribution of income among those living below the poverty line (measured by the Gini coefficient). Foster *et al*. provide a class of parametric poverty measures that are sensitive to changes in the income gap, changes in inequality, and changes in the number of poor (Blackwood and Lynch 1994).

The use of non-monetary measures gathered momentum in the mid- to late 1970s when a number of prominent international agencies compiled various sets of what have been described, rather loosely, as social indicators. Often interpreted as measures of basic human needs fulfilment, these indicators sought to capture achievements in such areas as health, education, the environment, culture, and politics. Specific indicators therefore include life expectancy, child mortality, access to health services, access to water, access to sanitation, infant mortality, calorie intake, literacy, years of schooling, and school enrolment ratios. While some of these indicators reflect the progress countries are making towards attaining fundamental well-being or developmental goals, others act primarily as intermediate indicators of progress. There is also a wide range of variables that address political participation, civil liberties, and human and labour rights.

Data on social indicators are now widely published, often for large country samples. The UNDP, in its *Human Development Report 2004,* publishes data on

life expectancy, adult literacy, and school enrolment ratios for 177 countries. There remain, however, concerns regarding the reliability and comparability of these indicators. Most of the widely used social indicators are based on information obtained from national censuses. It is well-known that many countries do not have the resources to conduct accurate censuses. No country conducts a yearly national census and some countries conduct them at irregular intervals. Data for the intervening years have to be estimated. Given these and a number of methodological problems, the data tend to be incomparable both between countries at a given point in time and within given countries over time. As a consequence, differences among countries in the values of social indicators are difficult to interpret. Yet, these problems do not provide grounds against the use of social indicators per se, but grounds for attempting to improve their reliability.

Income per capita or any single social indicator is only a partial measure of well-being if we treat well-being as a multidimensional concept. They alone capture a single well-being dimension, or part thereof. A number of composite measures aim to provide more comprehensive, multidimensional assessments of well-being.[5] One of the better known indexes is the Physical Quality of Life Index (PQLI), which was intended as a complement to GNP per capita in the measurement of human well-being at the national level. Proposed in 1979 by the Overseas Development Council, the PQLI combines infant mortality, life expectancy, and adult literacy into a single index. PQLI values for up to 150 countries were published (Morris 1979). While the PQLI has been criticized heavily, perhaps one of its most important contributions (and certainly one intended by its designers) was to combine variables measuring achieved well-being. That is, these variables measure the results or outcomes of efforts to improve human well-being, rather than combining measures of attempts to improve human well-being. As such, it avoided variables such as expenditure on education and, instead, focused on an aim of this expenditure; namely, higher literacy.

The PQLI received much attention in the years immediately following its inception. Yet interest in composite human well-being indicators tended to wane, and income per capita, especially GNP per capita, remained the most widely used and reported indicator. This changed with the UNDP *Human Development Report 1990*, which launched the Human Development Index (HDI) (UNDP 1990). The HDI, which has been revised a number of times since 1990, currently combines US$ PPP GDP per capita, life expectancy at birth, adult literacy, and the combined primary, secondary, and tertiary education enrolment ratio. The inclusion of US$ PPP GDP per capita has been controversial. The UNDP has made it clear that its inclusion in the HDI is intended to capture a material dimension to human development or well-being. US$ PPP GDP per capita is therefore transformed to reflect diminishing returns to the conversion of income or purchasing power into well-being, and hence to better capture this dimension. Various transformations have

been employed since 1990, some rather drastic involving capping this variable at an international poverty line income. Currently, the logarithm of US$ PPP GDP per capita is employed (UNDP 2004). While the HDI has received often heavy criticism from researchers on numerous grounds, it is used extensively in research and policy work, and is quite possibly the best known well-being or human development index. HDI values are currently available for 173 countries, with some extending back to 1960 for a number of countries (UNDP 1994, 2004).[6]

In the *Human Development Report 1995* the UNDP first introduced the Gender Empowerment Measure (GEM) and the Gender related Development Index (GDI) (UNDP 1995). These composite indexes are an attempt to incorporate gender dimensions into well-being measurement. The GEM contains information on: (i) percentage of women parliamentarians; (ii) the number female legislators, senior officials and managers as a percentage of the total number of people holding such positions; (iii) the number of female professional and technical workers as a percentage of the total number of such workers; and (iv) female earned income relative to that of males. The GDI adjusts the HDI on the basis of gender disparity in each of its four indicators (UNDP 2004). Any such disparity in these indicators for a country results in its GDI value being lower than its HDI value. The UNDP was not the first to adjust or disaggregate well-being indicators on the basis of gender disparities, as there is a long history of doing so. Three of the four variables on which the HDI is based (life expectancy, adult literacy, and the combined education enrolment ratio), had been available in gender disaggregated form for a number of years. The contribution of the GDI was to combine these variables, along with a gender disaggregated GDP per capita. There are also a number of gender specific well-being indicators, such as the maternal mortality rate.[7]

As with gaps in incomes between population groups, few would deny that gender gaps are irrelevant to achieved well-being assessments. Yet, the gender disparity adjusted indicators are subject to the same criticisms as the variables on which they are based. For instance, the gender adjusted or disaggregated social indicators are obviously subject to the same methodological and measurement error problems as their non-adjusted or disaggregated counterparts, given that the former are obtained from the latter. This is not, of course, an argument against using gender specific or gender adjusted indicators, merely one for improving their accuracy and comparability. Gender specific or gender adjusted indicators tend to be very highly rank-correlated with their non-specific or adjusted counterparts, and with other well-being indicators, including income per capita (McGillivray and Pillarisetti 2006). This has led to questions regarding the empirical contribution of these indicators, although such a correlation is not an argument for not monitoring changes in them, or for simply assuming that changes in the gender related indicators will necessarily follow those in their non-gender related counterparts. Conceptual problems also arise. Should gender equality in all indicators

be the underlying well-being goal? Relatedly, what constitutes equality?[8] There is also the issue of whether gender empowerment can be considered as well-being. Sen (1999) makes the distinction between female agency (a very similar concept to empowerment) and female well-being, arguing that strengthening the former is a separate goal alongside improving the latter. From this it might be inferred that increasing female empowerment will lead to increasing female well-being achievement, but leaves open the question of whether empowerment is well-being.

There are ongoing attempts to incorporate notions of sustainability into well-being assessment. Anand and Sen (2000b) provide a conceptual basis for this, viewing sustainability as a concern for inter-generational equity and treating its demand as a reflection of the universality of claims, applied to future generations vis-à-vis the current one. Anand and Sen argue that this univeralism is an ethical one, characterized as an elementary demand for impartiality, applied both within generations and between them. They assert that 'not working towards guaranteeing the basic capabilities to the future generations would be scandalous', but also that not 'bringing those elementary capabilities within the reach of the deprived in the present generation would also be outrageous' (Anand and Sen 2000b: 2030). These comments might be interpreted as a case for integrating sustainability measurement into achieved well-being measurement.

There is a long history of attempts to integrate well-being and sustainability measures. The MEW, mentioned above, attempted this, through including a measure of pollution (Nordhaus and Tobin 1972). Another early such attempt was the Economic Aspects of Welfare measure, which deducts the costs of air pollution damage and pollution and solid waste control costs (Zolotas 1981). A more recent attempt is the Genuine Progress Indicator (GPI) (Daly and Cobb 1989). The GPI deducts from selected expenditure components of GDP the depreciation of environmental assets and natural resources, reduction of stocks of natural resources – such as fossil fuels or other mineral deposits, and effects of wastes and pollution.[9] Attempts to adjust well-being indexes using sustainability measures have been criticized. Neumayer (2001), for instance, considers this issue in the context of 'greening' the HDI through the inclusion in the index of sustainability variables. Rather than such inclusion, Neumayer instead favours simply comparing a well-being achievement measure with a measure of sustainability, to assess whether this achievement is potentially sustainable.

Arguably the most thriving area of well-being research in recent years is that on subjective well-being or, as it is otherwise known, happiness.[10] Subjective well-being has been defined as people's multidimensional evaluation of their lives, including cognitive judgements of life satisfaction and affective evaluations of emotions and moods (Diener 1984, Argyle 1987, Diener and Larsen 1993, and Eid and Diener 2003). People are surveyed to obtain their self-assessments of well-being in a number of pre-determined

domains or dimensions. The World Health Organization Quality of Life assessment (the WHOQOL), for instance, focuses on 100 variables representing different life domains. The quality of life is defined in the WHOQOL as 'an individual's perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns' (WHOQOL Group 1994, cited in Skevington *et al*. 2004: 299). Respondents are required to self-assess their lives according to such factors as pain and discomfort, sexual activity, self-esteem, mobility, work capacity, freedom, physical safety and security, work satisfaction, and financial resources (WHOQOL Group 1998).[11] Another approach is simply to ask respondents to self-assess, on a finite scale, their satisfaction or dissatisfaction with life. For instance, scores reported on the World Happiness Database (WHD) are based on responses to the question 'All things considered, how satisfied or dissatisfied are you with your life-as-a-whole now?' (Veenhoven 2004).

Easterlin (1974), in a landmark study, examined links between income and happiness. Easterlin found that while individuals with higher incomes were happier than those with lower incomes at a particular point in time, the happiness of a particular cohort did not increase with income over time. Happiness levels actually appeared to remain constant even in light of substantial increases in income. This result was confirmed in later work by Easterlin. Known as the 'Easterlin paradox', this finding has been extensively examined, with many studies drawing the same conclusion or reporting broadly consistent results. A number of theoretical explanations for stable happiness over time has been put forward. Easterlin postulated that absolute income levels matter up to the point at which basic needs are met, and beyond that relative incomes are more important. If an individual's income remains constant relative to the incomes of that person's reference group, their happiness may remain unchanged. Another explanation put forward by Easterlin is that an individual's aspirations might rise with increases in income, offsetting an increase in well-being (Easterlin 2001). Cummins (1998) has proposed a specific theory to explain relatively constant happiness over time. Labelled the theory of subjective well-being homeostasis, this theory proposes that, in a manner similar to the homeostatic maintenance of blood pressure or temperature, happiness is actively controlled and maintained by a set of psychological devices that function under the control of personality. This theory predicts that good or bad events will cause a short-term change in subjective well-being, but that these psychological devices will return life satisfaction or happiness to its previous level. This level is seen as a 'set point', around which well-being varies, and is thought to be within the satisfied range of a satisfaction–dissatisfaction continuum (Cummins *et al*. 2003).

A challenge in measuring subjective well-being concerns the sensitivity of survey responses to momentary or immediate mood swings. As Campbell

et al. (1976), Eid and Diener (2003), among many others, have pointed out, the information provided by these surveys should instead relate to changes in the conditions in which people live. Diener (1984), Veenhoven (1993) and others have considered this question and as Easterlin (2001) points out, the general conclusion is that happiness scores are not perfect but do accurately reflect substantive feelings of well-being. International comparisons of happiness levels are also an issue. France, Japan, and Austria have happiness scores of 6.4, 6.3 and 6.1, respectively, out of a possible 10, according to the WHD (Veenhoven 2004). Yet, according to the WHD, Nigeria has a happiness score of 6.3, despite the fact that 70 per cent Nigerians live below the US$ PPP1 per day poverty line and 91 per cent live below the US$ PPP2 per day line (Veenhoven 2004, UNDP 2004). Such an apparent anomaly might provide a case not to use a happiness score to compare well-being across countries at a point in time, but instead to confine the use of these scores to monitor changes in well-being over time. This view is seemingly countered by Easterlin (2001), who argues such comparisons have credence, given a similarity of feelings about the sources of happiness across individuals, in diverse cultures and living in countries in different stages of socio-economic development.

A criticism of most indicators, including those discussed above, concerns the related issues of ownership and relevance. Attempts to increase a country's HDI score, for example, might be half-hearted if the relevant decision makers were not involved in the selection of the variables on which the index is based. Similarly, citizens of a particular country might not support a drive to lift their country's HDI value if they think the index is irrelevant to their own circumstances. In general, of course, there is a need to ensure that measures are directly relevant to the well-being circumstances and aspirations of the individuals whose well-being is under consideration. The underlying issue here is one of country-level ownership. Without ownership of the indicators, there is no guarantee that they will be used effectively for the design of policy interventions or will be relevant to the circumstances of the citizens to whom they apply. The UNDP has seemingly recognized these points, especially the second, through the preparation of *Human Development Reports* and country-specific HDIs (see, for example, UNDP 2003).

The same argument can, of course, be made regarding individual or household level indicators, and there have been many attempts to build poverty or well-being indicators using participatory methods. These methods can viewed as a process enacted either by the people whose living standards are being assessed, for those people (initiated by an agency, but based on participation or consultation), or with those people (Laderchi 2001). They have their origins in Participatory Rural Appraisal (PRA). Chambers (1994: 954) describes PRA as methods intended for 'local people to share, enhance and analyse their knowledge of life and conditions'. Participatory Poverty Assessments (PPAs), increasingly common in attempts to assess the life conditions

of individuals or households in developing countries, have their origins in PRA. Examples of the indicators produced using participatory assessments include whether the individual lives in a cement block house, whether they own a bullock and whether they have to always rely on borrowed clothing (Hanmer *et al.* 1997). The *Voices of the Poor* study, emanating from the World Bank, is a well known study that employed PPA (Narayan *et al.* 2000)

Overview of the volume

Human Well-being: Concept and Measurement contains a further nine chapters. As mentioned previously, these chapters look in far more detail at a number of the concepts or measures discussed in the preceding section.

Chapter 2, by Des Gasper, looks at well-being concepts and conceptualizations. Its basic premise is that prior to measuring something, we need to think hard about what it is that we wish to measure.[12] More broadly, before acting, we should think hard about purposes. Various legitimate but different purposes underlie the available conceptualizations of well-being. Chapter 2 seeks to clarify this variety of purposes, and the corresponding differences of focus and conceptualization, in a number of approaches to well-being which are influential in or very relevant to development theory and policy. It looks inter alia at: Sen's capability approach, Nussbaum's theory of human functional capabilities, Finnis's theory of core motives, and Alkire's attempted synthesis of these; as well as Dasgupta's specification of well-being, and Max-Neef's matrix of human needs. The chapter will consider how far one can integrate the various approaches.

Chapter 3, by Steve Dowrick, looks at issues relating to income per capita, focusing on GDP per capita. It was mentioned above that international comparisons of well-being are commonly made in terms of GDP per capita. Such comparisons might appear in newspaper articles examining the latest country rankings, quality of life, or in development reports assessing national well-being achievement or in economics journals analyzing the relative performance of countries. Yet, these comparisons are open to criticism, further to those mentioned above, on the grounds that GDP is more properly regarded as a partial measure of aggregate output than as an indicator of either current or future well-being. International GDP comparisons make no allowance for environmental differences, for resource depletion, for leisure, for household production of goods and services, for black market activities or for external costs and benefits associated with production and consumption. They are also bedevilled by index number problems. Chapter 3 suggests ways of combining working hours and life expectancy with income comparisons, and shows that the fixed-price indexes of real income, such as those in the Penn World Tables, substantially understate the income gaps between the poorest and richest countries.

Chapter 4, by Susan Harkness, critically surveys the vast range of indicators used to assess social and political well-being at the level of countries. It considers what contribution these indicators can make towards our understanding of human well-being. While many social and political indicators exhibit wide variations across countries, the chapter argues that the interpretation of these differences is not always clear. The chapter examines sources of cross-country variations, highlighting differences in data availability and measurement issues. Finally, the chapter examines the links and correlations between these various indicators of development across countries and their interpretation as measures of development.

Chapter 5, by Mark McGillivray and Farhad Noorbakhsh, surveys the various composite well-being indexes that have been inter-country assessments over the last 40 or so years. It pays particular attention to the HDI. A number of issues are considered, including the choice of components, component weights, scale equivalence, non-linearity, correlations among components, and the policy relevance of such measures. Several of these issues are examined in the context of a critical review of the many criticisms of the HDI and the UNDP's responses to these criticisms (some involving changes to the design of the index). A basic premise of the chapter is that indexes used for international well-being comparisons should be relevant to the policies and individual priorities of countries. Possible directions for the future design and application of composite well-being indicators are identified, including adoption of country specific variables, participatory, country and time variant component weighting schemes, and the inclusion of a human security vector.

Chapter 6, by S. Subramanian, aims at a broad, mainstream account of the literature on inequality and poverty measurement in the space of income and, additionally, deals with measures of disparity and deprivation in the more expanded domain of capabilities and functionings. In addition to introductory and concluding parts, the chapter has four sections. The first of these sections, on measurement of income inequality, deals with preliminary concepts and definitions; a visual representation of inequality (the Lorenz curve); real-valued indexes of inequality; properties of inequality indexes; some specific inequality measures; and the relationship between Lorenz, welfare and inequality orderings. The second section, on poverty, deals with the identification and aggregation exercises; properties of poverty indexes; some specific poverty measures; the problem of plurality and unambiguous rankings; poverty measures and anti-poverty policy; and other issues in the measurement of poverty. The third section considers aspects of both congruence and conflict in the relationship amongst poverty, inequality and welfare. The final substantive section advances the rationale for a more comprehensive assessment of human well-being than is afforded by the income perspective, it briefly reviews measurement concerns relating to generalized indexes of deprivation and disparity, and it discusses the data

and policy implications of the more expansive view of well-being adopted in the section.

Chapter 7, by Stephan Klasen, discusses the rationale, as well as the challenges, involved when constructing gender related indicators of well-being. It argues that such indicators are critically important but that their construction involves a number of conceptual and measurement problems. Among the conceptual issues the chapter examines is the space in which gender inequality in well-being is to be measured, whether the indicators should track well-being of males and females separately or adjust overall measures of well-being by the gender inequality in well-being, whether gender equality in every indicator is necessarily the goal, how to assess gender inequality that is apparently desired by males and females, and what role indicators of agency or empowerment should play in gender-related indicators of well-being. Among the most important measurement issues to be addressed are the role of the household in allocating resources, the question of stocks versus flows, as well as significant data gaps when it comes to gender inequalities. Where appropriate, remedies to the conceptual and measurement issues are proposed. The chapter also briefly reviews UNDP's gender related indexes to illustrate some of the challenges involved.

Chapter 8, by Eric Neumayer, provides a review and critical discussion of indicators that attempt to combine the measurement of sustainability with that of well-being. It starts with some commonly agreed definitions of sustainability, showing how most well-being indicators tell us little, if anything at all, about this issue. Sustainability is most commonly defined in economics as non-declining utility or well-being over time. Yet, due to its future orientation, most indicators of sustainability such as Genuine Savings (GS) have merely focused on the capacity to provide utility in the future, but have not included the measurement of current well-being. Indicators of well-being such as the HDI, on the other hand, have typically failed to account for sustainability in their measurement of current well-being. The chapter then critically reviews the Index of Sustainable Economic Welfare (ISEW) and the Genuine Progress Indicator (GPI), which are the most prominent examples of an indicator that attempts to fully integrate the measurement of welfare with that of sustainability into one single indicator. Such an integration, whilst seemingly attractive, is rendered difficult by the fact that what contributes to current well-being need not contribute at all, or in the same way, to sustainability and vice versa. He also reviews various proposals of extending a welfare indicator – namely, the HDI – with sustainability considerations without full integration of both concepts. All of these proposals suffer from a range of fundamental conceptual problems. As one possible alternative, he proposes a combination of the HDI and GS, which holds great promise for an assessment of well-being and its sustainability, particularly in developing countries.

Chapter 9, by Ruut Veenhoven, looks at measures of subjective well-being. It addresses three questions: What are 'subjective' measures?; What is 'well-being'?; Are subjective measures of well-being of use for policy making, in particular in developing nations? The first question is answered by making a distinction between two kinds of 'subjectivity': subjective substance and subjective assessment. On that basis, nine types of indicators are discerned, varying in degree of subjectivity. The second question is answered by discerning four kinds of well-being. Examples are presented of indicators for each of these well-being variants. It is argued that there is little sense in combining these variants in one sum score of overall well-being, since this is the equivalent of adding apples and oranges. The much-used HDI is questioned on these grounds. In answer to the third question, a case is made for subjective measures of well-being, in particular for using 'happy life years' as an indicator of final policy effectiveness.

Chapter 10, by Sarah White and Jethro Pettit, considers the use of participatory methods in international development research, and asks what contribution they can make to the definition and, in particular, measurement of well-being. It draws on general lessons arising from the project level, two large-scale policy research processes sponsored by the World Bank, and the experience of quality of life studies. It also considers emerging experiments with using participatory methods to generate quantitative data. The chapter closes by assessing the future trajectory of participatory approaches in well-being research, and reflects on some dilemmas regarding the use of participatory data on well-being in the policy making process.

Well-being concepts and measures: looking ahead

A number of conclusions emerge from the body of this volume. Each is clearly articulated in the chapters that follow, but it is useful at this early stage to briefly mention some of them, together with some additional comments.

With regard to well-being conceptualizations, it is evident that there are many well-being concepts and conceptualizations. The relevant literature is both diverse and rich. One wonders whether some degree of consolidation is possible; in particular, looking for commonality in the various well-being dimensions that have been proposed. Ideally, this might provide some sort of overall, definitive multidimensional well-being concept. A particular line of enquiry is how one might combine subjective and objective well-being measures or whether, indeed, this is at all appropriate. Conceptual work is required on how this might be done, but consideration could be given to augmenting composite indexes, containing objective measures, with a subjective measure or measures, such as a self-assessed happiness rating. One such augmentation might be to interact the two types of measures in some way, on the premise that achievement in objective well-being is conditional on happiness and *vice versa*.

A recurring theme throughout this volume concerns the availability and quality of national well-being data. International price level data, permitting comparisons of incomes across countries, need to be improved; in particular, data on social indicators. Not only do data on the commonly used social indicators (such as life expectancy, adult literacy, and infant mortality) need to be made more precise, but the country coverage of other such indicators needs to be expanded. This might perhaps allow for the inclusion of additional dimensions into indices such as the HDI without significantly compromising country coverage. Data on subjective well-being also need to be improved.

In addition to improving the precision of data, recent advances in statistics could be used to assign standard errors to social indicators and degrees of confidence in comparisons of inter-country well-being achievement. Confidence degrees could also be assigned in judging whether countries have achieved particular targets or benchmarks. This has obvious relevance to the MDGs. Can we be certain that a given country has achieved the MDGs? It could be the case that some countries might be judged to have achieved the MDGs, when in reality they have not. The opposite also applies. Assigning degrees of confidence to the MDG target variables would at least allow for more informed answers to the preceding question. More precise data would also, quite obviously, allow for more efficient monitoring of progress towards the MDGs. A case for assigning standard errors and degrees of confidence in inter-country comparisons can of course be made for most well-being indicators.

It is often said that we live in an increasingly insecure world. It is also said that individuals are becoming increasingly sensitive to their own personal security. Irrespective of whether these claims have empirical support, it is clear that individuals do place a high value on personal security and that this security would appear to be a universal human value. If we accept these points, then there is a strong, indeed compelling, case for including a human security vector in well-being indexes. An obvious candidate for this treatment is the HDI. Better data on human security are required. Just as importantly, consideration needs to be given to the conceptual issue of how one might augment an index like the HDI. Should a vector of human security variables simply be added to the index, with an appropriate weighting? Should this vector interact with one or more of the vectors already included? Or should it enter some other way? One might be able to argue that a given threshold level of security exists. Below that level, well-being increases only slightly with increases in the variables capturing the other well-being dimensions; above that level, well-being increases by a greater margin in response to increases in those variables. Other possibilities will, of course, exist and it is up to both the research and practitioner communities to consider all viable alternatives.

The topics covered in this volume provide a good illustration of the range of current research on national well-being achievements, in particular its

measurement. It is hoped that the chapters that follow will stimulate further research along similar lines. Just as importantly, or perhaps more so, it is hoped that they better inform the agencies that compile and disseminate well-being achievement statistics and the policy makers and others who base decisions on them.

Notes

The author is grateful for the excellent and comprehensive comments on an earlier draft of this chapter provided by three anonymous referees. The usual disclaimer applies.

1 Alkire (2002) provides an excellent survey of research on well-being (human development) dimensions and discussion of related issues.
2 See Qizilbash (1996a) for an excellent survey of related material. Alkire (2002) provides a succinct, more detailed coverage of this issue.
3 Anand and Sen (2000a) provide an excellent discussion of conceptual and measurement issues in relation to the use of income per capita as a human development measure, including inter alia formulations which reflect diminishing marginal returns to the conversion of income into human development or well-being.
4 See Lambert (2001) for an incisive treatment of such indexes.
5 It is should noted that GNP is a composite measure, in the sense that it is obtained by aggregating values of all goods and services purchased in an economy over a given period of time. Similar comments can be made of GDP per capita and many other well-being measures. The term 'composite measure' in the context of this volume refers to an indicator that has been obtained by combining measures of achievement in different well-being dimensions.
6 The HDI has generated a large academic literature. Among the reviews of the index are: Kelley (1991), McGillivray and White (1993), Acharya and Wall (1994), Ivanova *et al.* (1998), Noorbakhsh (1998), Sagar and Najam (1998), and Morse (2003). Anand and Sen (1992) and UNDP (1993) provide a survey of a number of early reviews.
7 See Saith and Harriss-White (1999) for an analysis of the gender sensitivity of well-being indicators, Bardhan and Klasen (1999) for a review of the GDI and GEM, and Pillarisetti and McGillivray (1998) for a review of the GEM.
8 Interestingly, the GDI defines equality in life expectancy as males having an expectancy five years lower than that of females (UNDP 1995).
9 The GPI is also known and the Index of Sustainable Economic Welfare (ISEW). See Neumayer (1999) for a review.
10 This should not imply that research on subjective well-being is new. As Easterlin (2001) observes, the bibliographic survey of Veenhoven (1993) contains approximately 2,500 references, and the measurement and analysis of various notions of subjective well-being in the social sciences has a history dating back 50 years. It does, however, imply that in recent years the amount of research on happiness has increased very substantially.
11 WHOQOL (1998) reports quality of life assessments for 15 urban centres. Ignoring sampling errors, Beer Sheva and Melbourne have the highest assessments (14.8 and 14.7, respectively), while St Petersburg and Harare have the lowest (11.5 and 11.3, respectively). Other assessments include those for New Delhi, Paris and Tokyo, which were 13.3, 13.6 and 14.0, respectively.

12 This was the central premise of the lead paper in a broadly similar publication to this current volume, published in 1969 as a special issue of the *Journal of Development Studies*. That paper was entitled 'What are we Trying to Measure?', Seers (1972).

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Notes: f = figure; n = note; t = table; **bold** = extended discussion or heading emphasized in main text.