1

Measuring and Using Happiness to Support Public Policies

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Abstract

This chapter summarizes the philosophical and empirical grounds for giving a primary role to the evaluations that people make of the quality of their lives. These evaluations permit comparisons among communities, regions, nations, and population subgroups; enable the estimation of the relative importance of various sources of happiness; and provide a well-being lens to aid the choice of public policies to support well-being. Available results expose the primacy of social determinants of happiness and especially the power of generosity and other positive social connections to improve the levels, distribution, and sustainability of well-being.

Over the past half century, and especially over the past twenty-five years, research and widespread public interest have combined to create possibilities for using happiness data to broaden the methods and content of public policies. Happiness data offer the possibility to restore to economics the breadth of purpose and methods it had two centuries ago, when happiness was considered the appropriate goal for private actions and public policies. They can also help guide health sciences as they move beyond the treatment of illness to the creation and maintenance of good health. More generally, happiness data can enable ethics and welfare economics to be driven by evidence rather than assumptions. What types of data and research are most likely to support these changes?

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The Importance of Measuring the Quality of Life

Among the many ways of defining and measuring happiness, the most central, from both philosophical and policy perspectives, are the evaluations that individuals make of the quality of their own lives. From a philosophical standpoint, it has been argued that ancient ethical philosophy "gets its grip on the individual at this point of reflection: am I satisfied with my life as a whole, and the way it has developed and promises to develop?" (Annas, 1993, p. 28). There are ancient and modern philosophical arguments about which aspects of thought and experience are most central to a good life. Ryan and Deci (2001) distinguish two opposing approaches, one hedonic and the other eudaimonic, with the former emphasizing a balance of pleasures over pain, thereby echoing the ancient Epicurean view, and the other emphasizing the development of human potential in a virtuous form, echoing the ancient Stoic philosophers. Ryff et al. (Chapter 4, this volume) make use of the hedonic versus eudaimonic division proposed by Ryan and Deci and emphasize Aristotle's contributions to the latter branch. For both Aristotle and Epicurus, happiness (eudaimonia) was the objective, and a life of virtue a likely route to get there (Annas, 1987).

In my view, Aristotle's most important contributions to the modern reframing of applied ethics lie not in his emphasis on excellence and purpose, but on two other fronts: first, hypothesizing that a good life is likely to combine elements of the viewpoints later identified as Epicurean and Stoic[1] and, second, that the right answers require evidence as much as introspection. "We must therefore survey what we have already said, bringing it to the test of the facts of life, and if it harmonises with the facts we must accept it, but if it clashes with them we must suppose it to be mere theory" (Nicomachean Ethics, book 10, 1179, 20–23, from Helliwell, 2003, p. 333).[2] I therein see Aristotle advocating the use of data from everyday life, not to isolate different theories of well-being, but to see how these theories cohere or compete in supporting people's judgments about how their lives are going.[3] I agree with Owen Flanagan's (2007) proposal that this line of necessarily interdisciplinary inquiry should be called *eudaimonics.*

Therefore I would argue that life evaluations are not just part of a measurement strategy for a philosophy based on the achievement of a favorable balance of pleasure over pain, as would be implied by classing them as hedonic variables. They are much more than that. They provide a central mediating device that can be used to establish the relative importance of various values and experiences, to measure the quality of life, and to support policy choices

likely to improve human flourishing. What are the specific characteristics of life evaluations that enable them to do all this?

Because they are overall assessments, they provide an umbrella measure of the quality of life. If they are collected in sufficient numbers from representative samples, they can be used to measure the quality of life in communities of all sizes, from the neighborhood to the nation and beyond. Because they are umbrella measures, they can be used to power research into the relative importance of various aspects of life and hence to inform policy judgments requiring choices among alternative ways to design and deliver public services. Because they are umbrella measures that can nonetheless be collected with any desired degree of granularity, they are able not just to measure differences in the quality of life in different locations and population subgroups, but also to explore the reasons for those differences. Another advantage of direct measurement is that the distributions of responses can be used to estimate the statistical significance of differences over time and among population subgroups.

Life evaluations ask how well life is going rather than what is going wrong. As such, they have more resonance with emerging trends within a number of disciplines to focus on understanding and improving the positive features of life rather than on identifying and repairing what has gone wrong (Chapter 6, this volume). The underlying presumption is that such a shift in focus will broaden the range of scientific understanding in important directions and thereby offer better ways to sustainably improve lives in organizations and communities large and small.

In summary, life evaluations provide umbrella measures that grasp life at its central point. They can be used not just to measure but also to explain why people differ in their life evaluations, thereby providing a focus of attention for the general public and policy-makers alike as they search for something that is able to encompass and reconcile otherwise competing measures of welfare. This centrality of life evaluations as an empirical construct capable of deep meaning was recognized by ancient philosophers and has, in modern times, made them the most relied-upon measure of subjective well-being. Are they also measures of happiness? Here it is crucial to distinguish two quite separate uses of the term "happiness," one relating to a felt emotion and the other to a cognitive judgment about the extent to which one is happy about something.[4] People quite clearly know whether they are being asked about the emotion or, alternatively, about how they value something. Hence answers to questions about happiness yesterday are quite different from answers to life evaluation

questions asking people about how happy they are with their lives as a whole. In the latter case, the answers are structurally similar to answers about life satisfaction or other life evaluations. In the former case, the answers clearly relate to the current emotional context. Thus those who are asked both types of question are quick to see the context in which they are asked about happiness and answer appropriately in both cases, reflecting their ability to see the logic of the conversational context (Grice, 1975). This should help dispel fears that the abundance of terms necessarily creates a confusion of results. Indeed, the fact that the answers differ in just the ways that theory would suggest should increase confidence in both types of measure.

How Does This Approach Differ from Alternative Ways of Measuring Human Progress?

This approach differs fundamentally from three other ways of assessing human progress.

Gross Domestic Product and Similar Measures

National accounts of income and expenditure provide a well-established measure of market-based economic activity. To use gross domestic product (GDP) or gross national product (GNP) as measures of national welfare has long been recognized as mistaken. Almost fifty years ago, Nordhaus and Tobin (1972) proposed an experimental *measure of economic welfare* (MEW) that attempted to correct for many of the recognized short-comings of GNP accounting. They realized that their measure was still far too narrow to represent welfare more broadly construed but felt that "the 'social indicators' movement of recent years still lacks a coherent, integrative conceptual and statistical framework" (Nordhaus & Tobin, 1972, p. 9). Life evaluations are now seen by many as providing a plausible way to fill that gap.

Healthy Life Expectancy

Healthy life expectancy involves an adjustment to reduce life expectancy by an amount reflecting some estimate of the welfare costs of morbidity. As

welfare accounting moves toward a broader use of subjective well-being to assess the welfare costs of ill health (Peasgood, Foster, & Dolan, 2019), the measure of healthy life expectancy is likely to be further adjusted to reflect the value that individuals place on good health when reporting their life satisfaction. Even the current data have been found to have a strong role in explaining international differences in life satisfaction (e.g., see table 2.1 in the World Happiness Report [WHR] 2019).[5]

Indexes of Economic and Social Progress

Composite social indicators constructed by experts based on their own conceptions of what a good life comprises have been used for more than fifty years—as documented in a special issue of *Social Indicators Research*[6] celebrating fifty years of social indicators research—to supplement or perhaps replace GDP as means of gauging social progress. Within the social indicators movement there has long been a tension between those who value having multiple social indicators, with each being seen as important in its own light and right, and those who see the importance of having a single composite measure that could provide a way beyond relying on GDP per capita as the default proxy measure of progress. The essential difficulty with such indexes is their reliance on somebody's decisions about which aspects of life to consider, how to empirically represent their quality, and, most importantly, how to weight the different sectoral measures to provide a single overall indicator. Such indicators differ according to the policy preferences and theoretical presumptions of their designers. In the absence of some overall primary measure of well-being, there is no empirical way to choose among competing indexes. Their constructed nature means that they cannot be used to estimate the relative importance people place on various aspects of their lives since those weights have already been built into the index itself.

Thus, for example, the Human Development Index (HDI) prepared by the United Nations Development Programme is an equally weighted average of three indicators, one for GDP per capita, one for healthy life expectancy, and one for average education levels (Anand & Sen, 1994). By its very nature, it cannot provide information about the relative importance of these different aspects of development nor about what may be missing from the picture. The choice of items included owes much to Sen's capabilities approach (Sen, 1994), although none would argue that the coverage is comprehensive

or that the relative importance of the components is as assumed by the equal weighting. The Organisation for Economic Co-operation and Development's (OECD) Better Life Index (Durand, 2015) finesses the weighting question by presenting a dashboard of indicators and inviting individual users to choose their own weights to develop an overall indicator. That procedure leaves equal weighting as the default option for the media and most users.

A better way of making use of the diverse measures used in indexes of human progress is to treat them as variables that can be used to explain variations over time or among communities and countries in a primary umbrella measure. The primary measures are interesting in themselves, but their real value to public understanding and policy only appears when it becomes possible to uncover some plausible reasons for their effects on well-being over time and among population subgroups. The various social and economic indicators included in composite measures are often ideal candidates for explanatory roles since they reflect topics and aspects of life long thought to be important to human progress. They can then be used, in combination with often-ignored social context variables, to help explain life evaluations, with the results being used to estimate the relative importance of the various factors. Measures of domain satisfaction can likewise be used to help unravel the relative importance of different aspects of life, while multi-item measures of subjective well-being, such as the ten questions in five domains of flourishing proposed by VanderWeele (2017), can be used to help unpack the movements in overall life evaluations or, alternatively, as independent items to be linked to different aspects of life. Understanding the interplay among alternative ways of measuring well-being deserves to remain a central focus for research.

Specific Measurement Issues

One Question or Many?

If and when there is agreement to use life evaluations as a primary measure, there will remain issues about how they should be measured. There are four questions or groups of questions that have been widely used. These include

- the Diener et al. (1985) five-question Satisfaction with Life Scale (SWLS),
- the Cantril ladder question used in the Gallup World Poll,

- a satisfaction with life as a whole (these days, now, or nowadays) question, as recommended by the OECD (2013) and used by the European Union (EU) and many national statistical offices, and
- a question asking respondents how happy they are with their lives (one of the two life evaluation questions used in the European Social Survey).

There is a general research case to be made for surveys to include some redundancy in life evaluations, first, to build understanding of how these alternatives are related and, second, because there is evidence in favor of the presumption that multiple measures can help to increase the signal-to-noise ratio. There is, however, always a tradeoff to consider between asking more questions of the same respondents versus increasing the overall sample coverage. In the case of the five-question SWLS, it has been found that most of the overall information comes from answers to the life satisfaction question. This suggests that to use a single life satisfaction question in large population-based samples might represent the best use of survey resources. Research comparing the SWLS and a single-item SWL question in three large surveys finds that the two measures provide essentially the same information (Cheung & Lucas, 2014) thereby justifying single-item measures as a preferred choice in large-scale surveys where survey space needs to be rationed.

Where two different life evaluation questions have been used in the same survey, they have been found to attach similar relative importance to the chosen sets of explanatory variables and to produce slightly tighter fits if their average value is used. This was first shown for the Gallup World Poll, when the Cantril ladder and the life satisfaction question were both asked of the same respondents, on the same 0–10 scale, in one survey wave (Helliwell, Barrington-Leigh, Harris, & Huang, 2010, table 10.1). The same was found using data from the European Social Survey, which regularly asks two life evaluation questions, one on life satisfaction and the other on happiness with life as a whole, each on the same 0–10 scale. Once again, although the means and distribution shapes were slightly different, the coefficient estimates were very similar, and tighter estimates were obtained by averaging responses to the two questions (Helliwell, Huang, & Wang, 2018). One of the advantages of having different questions asked in the same survey is that it allows one to discern with greater assurance whether surveys that use different question forms are thereby getting answers that are materially different. For example, before there was life satisfaction data from the Gallup World Poll, it was hypothesized that the larger income effects being found in the Gallup World Poll than

from earlier work using World Values Survey data were due to the particular ladder framing used for the Cantril ladder. This hypothesis was rejected by the data because the results based on the life satisfaction answers were essentially the same as those from the Cantril ladder. Without having both questions asked in the same survey, this would not have been discovered.

What About Emotions and Purpose?

Much earlier research has shown that positive and negative affect have different correlates and structures from each other (Diener & Emmons, 1984) and from life evaluations. This led the UK Office for National Statistics (ONS) in 2011 to introduce a set of four key questions, on a 0–10 scale, in their Annual Population survey: one life satisfaction question, one on positive emotion (happiness yesterday), one on negative emotion (anxiety yesterday), and one asking whether overall respondents feel that the things they do in their lives are worthwhile. These questions were chosen, as documented in Allin (Chapter 2, in this volume), on the basis of prevalence in previous surveys and public consultations. Should these four questions be seen as alternatives or complements? Within the framework proposed in this chapter and also adopted in the WHR, the life evaluation question provides the central evidence recommended by Aristotle, while positive and negative emotions, and a sense of life purpose, are all to be expected to play a role in explaining life evaluations. The affect measures, because of their short-term focus, are ideally suited to laboratory experimental contexts in which the interventions considered are so small in magnitude or duration that changes in overall life evaluations would not be expected. When asked in general surveys, affective measures can also help to disentangle the channels through which changes in life circumstances come to influence life evaluations. The aggregate results in successive editions of the WHR have suggested a strong positive role for positive affect in explaining life evaluations, with little or no effect coming from the indicators of negative affect, all of which are also less prevalent and less influential than the positive emotions in the Gallup World Poll data. The social variables that are so strong in the WHR findings are mediated to an important extent through positive affect.[7] There is a presumptive role for a sense of life purpose (Chapter 4, in this volume), but this question has not been widely enough asked in large-scale surveys for general conclusions to be reached. There is also need for more comparisons among a wider variety of measures of psychological well-being (Chapter 13, in this volume).

How Many Response Options?

Life evaluations are now generally asked on an 11-point scale anchored by 0 and 10. All of the available evidence suggests that longer scales carry more information than shorter ones. The UK ONS asks its affect questions on the same 0–10 scale. The Gallup World Poll asks its affect questions on a binary yes/no scale. There are two advantages in using the same 0–10 scale for all subjective well-being questions. First, it enables easier comparison of the information provided by life evaluations and affect measures. Second, the longer scale permits the distribution of well-being to be measured and its consequences analyzed. By contrast, from the binary answers one can only learn what fraction of the population has the attribute in question. The binary nature of such data means that they cannot provide a meaningful measure of inequality.

Method Effects

Survey methods are in flux as face-to-face interviews are being replaced by cheaper methods, land line phones are being supplanted by cell phones, and various online completion methods are coming into greater use. Online methods are more easily adapted for increasing the longitudinal component of repeated population-based surveys at modest cost, but at some risk of misrepresentation. Given the persistence of a digital divide, online methods require cross-validation by other methods since some recent evidence (Arim & Schellenberg, 2019) shows that selection effects may lead to online panels delivering life satisfaction estimates that differ seriously from population-based life evaluations. There is also some evidence of method effects, with one analysis of the ONS life evaluations finding higher life evaluations for telephone than for face-to-face interviews (Dolan & Kavetsos, 2016).

Survey Context Effects

It is to be expected that survey answers may depend on the context in which they are asked. Thus US survey respondents who were asked the Cantril ladder question gave on average lower responses if, immediately prior to that question, they were asked a question about national politics, with the negative effect being concentrated among respondents who held unfavorable views about the current political context (Deaton & Stone, 2016). In a similar

vein, it has been found that life satisfaction answers in different rounds of the Canadian General Social Survey (GSS) differ according to the overall topic of the survey (e.g., being lower in the time-use cycle) (Bonikowska, Helliwell, Hou, & Schellenberg, 2014). These findings have been seen by some as a caution against reliance on survey responses. The ease with which framing effects can be delivered in laboratory settings more or less guarantees that similar issues would arise in a survey context. What is encouraging is how these effects are of a direction and size indicating that people take the questions seriously and answer them appropriately. For example, middle-aged respondents reporting themselves to be having trouble juggling competing demands for their time are those whose life satisfaction is lower in the time-use waves of the Canadian GSS. This makes any such effects easier to guard against and easier to allow for when samples are being pooled. In the case of the Canadian GSS, the coefficients on all the key variables of interest are very similar for each of the GSS waves. Therefore a fixed-effects adjustment for each survey wave permits the data to be efficiently pooled. In general, there is a case to be made for including life evaluations in a demographic block, with a similar structure for each survey, and at sufficient remove from questions or contexts that have been found (or might be expected) to influence responses. For example, in the Canadian Community Health Survey (CCHS), which asks the life satisfaction question as part of the demographic block and has a similar content from wave to wave, there are no differences in the years where differences appeared among GSS waves with a different subject focus. In summary, survey context matters, but its effects can be minimized and adjustments can be made where context differences remain.

What Do Life Evaluations Reveal About the Sources of a Happy Life?

Possibilities for learning about the sources of happier lives depend crucially on what data are available and used in research. Much of the earliest individual-level research relied mainly on age, gender, education, and income since those were among the relatively few variables available in experimental and survey studies. This led to corresponding conclusions that only a small proportion of the individual-level happiness differences could be explained and the analogous inferences that most of the variance was due

to idiosyncratic personality differences, including individual set-points with a potentially large genetic component. This conclusion illustrates the importance of measuring what matters to people.

It is not sufficient to know how satisfied people are with their lives since nothing can be done with this information without an informed view of what makes for better lives. To know more about what features of life are conducive to health and happiness requires that all the relevant aspects of life need to be measured and considered. This is difficult to achieve in the large-scale surveys required to benchmark happiness for a variety of geographic and demographic groupings. Providing a full range of explanatory variables requires a mix of variety and coverage that is achieved by including at least a core set of subjective well-being questions in all of a nation's population-based surveys. These include especially the whole range of social surveys, whether their focus is on health, employment, education, aging, neighborhoods, or the social context. To help unpack causal directions and isolate the effects of confounding factors, it is also essential to monitor subjective well-being before, during, and after any significant policy changes. This also applies to experimental studies, regardless of whether their well-being consequences are the driving force in the policy design process. Measuring several dimensions of psychological well-being also permits a clearer understanding of the multiple possible pathways from higher psychological well-being to improved physical health (Chapter 5, in this volume).

In the absence of much larger samples of survey and experimental data, it is impossible to draw definitive conclusions about the relevant importance of various aspects of life, especially in the presence of complicated feedbacks and many confounding factors. But emerging evidence suggests that the social sources of well-being, especially those delivered in person, are of even greater importance than previously thought (Helliwell & Putnam, 2014). In recent World Happiness Reports, six factors have been found to explain three-quarters of the differences in average life evaluations among countries and over time. Two of these factors have already been mentioned: GDP per capita and healthy life expectancy. The other four factors, all reflecting some aspect of the social fabric widely construed, are having someone to count on in times of trouble, a sense of freedom to make life choices, generosity, and a trustworthy environment, as proxied by the absence of corruption in business and government. Calculations in WHR 2017 (Helliwell, Huang, & Wang, 2017, p. 37) show that to move those in the countries with the lowest values of each of the four social variables up to the world average would raise

life evaluations by almost 2 points (1.97) on the 0–10 scale. Such a change is about half as great as the entire range of national average life evaluations and is more than that associated with similar changes in both income per capita and healthy life expectancy (from the bottom to world average). The largest gains come from the measure of social support (having someone to count on in times of trouble [1.19 points]). This difference is about equal to the gains from the 16-fold increase in per capita incomes required to shift the three poorest countries up to world average income levels. The importance of the social variables does not disappear, even at higher happiness levels. If countries with world average levels of the four social variables could raise them to the average of the three top countries for each of the four social variables, life evaluations would be higher by an additional 1.29 points. These calculations, being based on correlations rather than more directly causal evidence, are intended mainly to reveal the relative size of the likely effects of social factors in comparison to the more established measures of income and good health.[8]

Research based on surveys with a larger range of potential driving variables shows even greater primacy of the social and, within the social, the dominance of the local.[9] To feel a sense of belonging in an atmosphere of mutual support and trust is of first-order importance. This goes far beyond being free from the risk of attack by others (e.g., as measured by fear of walking the streets at night, with remedies promised by the gated community); it is the capacity to feel embedded in a community where trust, belonging, and mutual support are the accepted norms.

Among the social variables, the one that has received the least previous research and policy attention is generosity. Generosity, and prosocial behavior in general, is much more prevalent and has greater links to subjective well-being than people and policy-makers think (Aknin, Whillans, Norton, & Dunn, 2019). The fact that people enjoy being engaged in social activities that help others opens the door to a wide range of win-win policy choices (e.g., where schoolchildren and those in elder care get the chance to care for and teach each other, thus creating valuable resources while enriching lives).[10] The fact that benevolent acts make the benefactor happier increases their chances of being repeated. But the related fact that people underestimate their own happiness rewards from benevolence should perhaps be ignored because much of the happiness gain from benevolent acts arises if and when they are done unselfishly (Helliwell & Aknin, 2018). This information gap is perhaps best filled by the Golden Rule, with its central role in all religious doctrines and moral philosophies, thereby providing a norms-based

incentive to act in ways that increase happiness for givers and receivers of generous thoughts and actions.

To expand the opportunities for making positive social connections will, however, require reversing some of the increasingly risk-averse professionalism of recent decades in the social services and will require flatter and more open administrative structures for decision and action. To harness pro-social actions most effectively requires that people be offered more chances to engage with others in joint searches for better lives. This will involve changes not only in the content of policies, but also in the ways they are designed and delivered.[11]

Measuring the Distribution of Well-Being, and Why It Matters

If life evaluations provide an umbrella measure of the quality of life, it would seem theoretically obvious that well-being inequality would provide a broader measure of inequality than could be derived from the separate measures of inequality in income and wealth, health, education, and friendship. Most previous studies of inequality have relied on income inequality when studying the effects of inequality on health (Pickett & Wilkinson, 2015) and happiness (Alesina, Di Tella, & MacCullough, 2004). But recent research (Goff, Helliwell, & Mayraz, 2018; Nichols & Reinhart, 2019) has shown that inequality in the distribution of life evaluations is more powerful than income inequality in several explanatory roles where inequality is thought to be a factor. This is an important finding. If average life evaluations are an appropriate measure of community welfare, then the effect of happiness inequality on life evaluations provides an empirical measure of a society's aversion to inequality (Helliwell, 2020). In the absence of this evidence, moral philosophers and policy-makers alike have had to assume the weights needed to construct a social welfare function. The distribution of costs and benefits among the population must always be a central aspect of policy evaluation. The evidence suggests that people significantly prefer less inequality in the distribution of well-being, and these estimates provide the basis for comparing policies with differing impacts on the distribution of well-being. This in turn suggests, but does not necessarily require, a policy framework that explicitly targets those most in misery because there is also evidence that policies which generally improve the social context (e.g., increasing social

trust or community belonging) may provide their largest benefits to those in circumstances least likely to make them happy—in particular ill-health, unemployment, and discrimination.[12]

Measuring and Understanding Community and National Well-Being

Does the average level of life evaluations in a community provide the best measure of well-being in that community? That is certainly what is assumed when national averages are measured and taken to represent quality of life within a nation. At the national level, there are qualms and qualifications based on possible linguistic and cultural differences in response styles that might raise problems of comparability. Although response style differences have been shown to exist, they do not appear to be large enough to disturb the general finding that life evaluations are comparable across countries since they are found to depend on the same factors, to roughly the same extent, throughout the world (Helliwell, Huang, & Harris, 2009). This conclusion is also supported by evidence showing that immigrants have life valuations similar to those born locally despite coming from countries with very different institutions, histories, and cultures (Helliwell, Shiplett, & Bonikowska, 2020).

What about comparisons among communities within a country? At this level there is more uniformity of language and culture, but also greater potential for selection effects that cause happy and unhappy people to end up in different neighborhoods based on their tastes, education, ethnicity, and incomes. Also, for a variety of reasons, communities can come to have their own characteristics, partly shaped by their histories and driven by the quality of the interactions among those who live there. Various features of a neighborhood have been found to have important effects on the subsequent life experiences of those who move there (Chetty & Hendren, 2018). Such studies that track individuals as they move are relatively rare. In the larger range of studies that find correlations between neighborhood characteristics and average individual happiness, there is a prevailing difficulty in accounting for selection effects and, more generally, in unpacking the expected two-way causal linkages between individual happiness and various measures of community characteristics, especially ones that track the social context.

Returning to the central question of measuring community-level happiness, how should we answer the frequent suggestion that community-level

well-being somehow lies above and beyond the average subjective well-being of the people who live there? If we are interested in assessing the quality of what is added by the community to the happiness of its residents (and its visitors and nonresident workers—two important categories often ignored), then it is clearly necessary to adjust for differences between communities in respect of the characteristics of the individuals who live there. There are two methods for doing this. One is to obtain independent measures of community-level factors that have been assumed or found to improve resident happiness and combine these into an index of community well-being.[13] The problems with such indexes are the same as those outlined earlier for national indexes: how to choose, and then weight, the components, and how to tell whether the resulting differences between communities are significantly large. The second method is to collect information about the characteristics of a community as a whole and of the individuals in that community, and then use empirical work and available natural and controlled experiments to explain the life evaluations of residents. This can help to establish the relative importance of different aspects of community life. As noted by VanderWeele (Chapter 14, in this volume), the communities of interest may include not just those defined by geographical boundaries, but also by common interests, activities, beliefs, and friendships that span geographic boundaries.

In my view, the most appropriate measure of the quality of life in a community (and in a country or region) is the average reported life satisfaction of its residents. To help unpack the role played by qualities specific to a community, rather than by qualities brought to the table by those living there, is and will always remain a difficult research question.[14] Answering that question is aided greatly by the collection and use of variables of the sort proposed as candidate components of a community well-being index.

Using Happiness Data and Research to Support Public Policies

Happiness data and research require widespread measurement if they are to have any impact on public policies. But will the availability of data be enough to trigger public policies based on well-being? Paul Allin (Chapter 2, in this volume) notes that the translation of UK subjective well-being data into research and policy applications has been relatively slow. What is needed to encourage the process? Successful transition is likely to require several further

steps once the data are available and in easy reach. First, policy interest will be greater when there is widespread public interest in and acceptance of happiness data. This can be initiated by widespread distribution and preliminary analysis by national statistical agencies.

At the global level, the availability of internationally comparable life evaluations from the Gallup World Poll has spurred widespread interest in how happiness compares across countries, which in turn has led to many books and articles and even new research institutions examining the lives and policies of the happiest countries, most particularly the Nordic countries.

Once data are made readily available to outside users, along with matching data on a variety of those features of life likely to support better lives, this should spur academic and institutional research covering a wide range of national and sectoral policy issues. This research base can in turn support the reform of benefit-cost analysis so that it compares policies on the basis of how much they improve the levels and distribution of life satisfaction. This is perhaps the most important step in the transition since it can be done piecemeal and without fanfare, not requiring any high-profile political precommitments to a new policy focus. It gives policy analysts a better set of tools and the capacity to bring a broader view of life into policy discussions and decisions.[15] For new policy evaluation methods to be effectively designed and widely accepted will require, over the longer run, training new generations and retraining older ones within academic disciplines and public policy schools to rethink the assumptions and methods ingrained in established texts and curricula. A corresponding process has been under way for a few years longer in the study of global warming and other environmental issues. The shift toward subjective well-being as a practical focus for public attention and policy design will take longer. It permeates a range of disciplines, and requires similar transdisciplinary approaches if it is to succeed. If it does succeed, then it should foster more appropriate and sustainable solutions to all policy problems, including those facing the social, political, and physical environments, at all levels, from the neighborhood to the globe.

Notes

1. "Aristotle argues that all our actions are, in some way, for the sake of a single end. Obviously, people are not all aiming at the same determinate end; the final end is a highly unspecific end that nonetheless unifies our actions. The only halfway specific

thing we can say about it is that everyone agrees that it is eudaimonia. This doesn't help much, because people disagree as to what eudaimonia is, some thinking that it is pleasure, others virtue, others virtue exercised in favorable conditions. Epicurus will defend the first option, the Stoics the second, Aristotle himself the third: this sets the framework of ancient ethical debate that continues to this day" (Annas, 1993). As quoted by Keyes and Annas (2009, pp. 197–198).

2. This has modern echoes in the "pragmatic subjectivism" of Haybron and Tiberius (2015).
3. This led me to appoint myself as Aristotle's research assistant, a position made possible through the increasingly widespread availability of answers to the central question he proposed. I similarly expect that ethical philosophy will develop an empirical aspect. This may be slow in coming, as Fletcher (Chapter 7, this volume) reports that modern philosophers still think that empirical work based on data from ordinary lives cannot help to mediate or resolve philosophical debates about the relative importance of different theories of the sources of happiness.
4. Amartya Sen utilized linguistic philosophy to make this distinction in his keynote address to the January 2013 Rome Science Congress. His primary reference was to the later Wittgenstein (1953), with roots attributed to Gramsci via Sraffa, as described in Sen (2003). Gramsci's view of "spontaneous philosophy," whereby meaning is derived from everyday linguistic usage, was also central to English linguistic philosophy, partly through Wittgenstein (1953), wherein meaning is based on the logic of the conversations in which words are used (e.g., Grice, 1975).
5. Richard Layard has suggested (2020, p. 205) that, for valuing health policies and perhaps more broadly, healthy life expectancy should be given even more weight by multiplying average life satisfaction by health life expectancy (or Health Adjusted Life Years [HALYs]). If the current measures of life satisfaction already embody the full value that individuals attach to healthy life expectancy, then to multiply life satisfaction by the number of healthy years would exaggerate their relevance to average national happiness.
6. The overview paper by Land and Michalos (2018) is followed by a series of invited comments.
7. Cohn et al. (2009) additionally find increased resilience to be a pathway from positive affect to life satisfaction.
8. Because the social factor answers come from the same surveys as the life evaluations, there is a risk that they might be correlated, even at the aggregate level, because of idiosyncratic happiness differences that might affect life evaluations and the answers to the social questions. This risk was tested for by dividing the national samples randomly in two and then using the average social variable responses from one half of the sample to explain the average life evaluations of the other half. The results were almost completely unaffected, as shown in table 10 of online statistical appendix 1 of WHR 2018.
9. For example, the Canadian General Social Survey has asked separately about a sense of belonging to one's local community, province, and to Canada as a whole. All are significantly positive, but the power of the local belonging is significantly the largest, more

than three-quarters of a point on the 0–10 life satisfaction scale even holding constant the significant effects from trust in co-workers and trust in neighbors (Helliwell and Wang, 2011, table 4–1).

10. For examples and references, see Helliwell (2019).
11. The "how" aspects are sometimes referred to as "procedural utility" (Stutzer and Frey, 2006). For more examples, see Helliwell (2019) and part III of Helliwell, Huang, Grover, and Wang (2014).
12. See Helliwell, Aknin et al. (2018, figure 4) for evidence from the European Social Survey that people living in a high-trust environment are more resilient in the face of each of these negative circumstances, while Daley, Phipps, and Branscombe (2018) show that a sense of community belonging protects youth with disabilities from the negative well-being effects of perceived discrimination.
13. See VanderWeele (Chapter 14, this volume) and the references therein.
14. For reviews of open issues, see Sampson, Morenoff, and Gannon-Rowley (2002) and Van Ham and Manley (2012).
15. On this point, see also Durand and Exton (2019).

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References

Aknin, L. B., Whillans, A. V., Norton, M. I., & Dunn, E. W. (2019). Happiness and prosocial behavior: An evaluation of the evidence. In J. F. Helliwell, R. Layard, & J. Sachs (Eds.), *World happiness report 2019* (pp. 67–86). New York: Sustainable Development Solutions Network.

Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics, 88*(9–10), 2009–2042.

Anand, S., & Sen, A. (1994). *Human development index: Methodology and measurement*. World Development Report Occasional Paper. New York: United Nations Development Program.

Annas, J. (1987). Epicurus on pleasure and happiness. *The Society for Ancient Greek Philosophy Newsletter*. 146. https://orb.binghamton.edu/sagp/146

Annas, J. (1993). *The morality of happiness*. Oxford University Press, Oxford.

Arim, R., & Schellenberg, G. (2019, June 4). An assessment of non-probabilistic online survey data: Comparing the carrot rewards mobile app survey to the Canadian community health survey. *Statistics Canada Analytic Studies: Methods and References, 21*. https://www150.statcan.gc.ca/n1/pub/11-633-x/11-633-x2019002-eng.htm

Bonikowska, A., Helliwell, J. F., Hou, F., & Schellenberg, G. (2014). An assessment of life satisfaction responses on recent statistics Canada surveys. *Social Indicators Research, 118*(2), 617–643.

Chetty, R., & Hendren, N. (2018). The impacts of neighborhoods on intergenerational mobility I: Childhood exposure effects. *The Quarterly Journal of Economics, 133*(3), 1107–1162.

Cheung, F., & Lucas, R. E. (2014). Assessing the validity of single-item life satisfaction measures: Results from three large samples. *Quality of Life Research, 23*(10), 2809–2818.

Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion, 9*(3), 361.

Daley, A., Phipps, S., & Branscombe, N. R. (2018). The social complexities of disability: Discrimination, belonging and life satisfaction among Canadian youth. *SSM-Population Health, 5*, 55–63.

Deaton, A., & Stone, A. A. (2016). Understanding context effects for a measure of life evaluation: How responses matter. *Oxford Economic Papers, 68*(4), 861–870.

Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology, 47*(5), 1105.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75.

Dolan, P., & Kavetsos, G. (2016). Happy talk: Mode of administration effects on subjective well-being. *Journal of Happiness Studies, 17*(3), 1273–1291.

Durand, M. (2015). The OECD Better Life Initiative: How's life? and the measurement of well-being. *Review of Income and Wealth, 61*(1), 4–17.

Durand, M., & Exton, C. (2019). Adopting a well-being approach in central government: Policy mechanisms and practical tools. In Global Happiness Council (Eds.), *Global happiness and wellbeing policy report 2019* (pp. 140–162). http://www.happinesscouncil.org

Flanagan, O. (2007). *The really hard problem: Meaning in a material world*. Cambridge, MA: MIT Press.

Goff, L., Helliwell, J., & Mayraz, G. (2018). Inequality of subjective well-being as a comprehensive measure of inequality. *Economic Inquiry, 56*(4), 2177–2194.

Grice, H. P. (1975). Logic and conversation. In P. Cole and J. L. Morgan (Eds.), *Syntax and semantic (Vol. 3, speech acts*) (pp. 41–58). New York: Academic Press.

Haybron, D. M., & Tiberius, V. (2015). Well-being policy: What standard of well-being? *Journal of the American Philosophical Association, 1*(4), 712–733.

Helliwell, J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling, 20*(2), 331–360.

Helliwell, J. F. (2019). How to open doors to happiness. In Global Happiness Council (Eds.), *Global happiness and wellbeing policy report 2019* (pp. 9–26). http://www.happinesscouncil.org

Helliwell, J. F. (2020). Three questions about happiness. *Behavioural Public Policy*, *4*(Special Issue 2), 177–187.

Helliwell, J. F., & Aknin, L. B. (2018). Expanding the social science of happiness. *Nature Human Behaviour, 2*(4), 248.

Helliwell, J. F., Aknin, L. B., Shiplett, H., Huang, H., & Wang, S. (2018). Social capital and prosocial behavior as sources of well-being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. doi:nobascholar.com

Helliwell, J. F., Barrington-Leigh, C. P., Harris. A., & Huang, H. (2010). International evidence on the social context of well-being. In E. Diener, J. F. Helliwell, & D. Kahneman (Eds.), *International Differences in Well-Being*, (pp. 291–325.) New York: Oxford University Press.

Helliwell, J. F., Huang, H., & Harris, A. (2009). International differences in the determinants of life satisfaction. In B. Dutta, R. Tridip, & E. Somanathan (Eds.), *New and enduring themes in development economics* (vol. 5, pp. 3–40). New Delhi: World Scientific.

Helliwell, J. F., Huang, H., Grover, S., & Wang, S. (2014). *Good governance and national well-being: What are the linkages?* OECD Working Papers on Public Governance No. 25. doi:10–1787/5jxv9f651hvj-en

Helliwell, J. F., Huang, H., & Wang, S. (2017). The social foundations of world happiness. *World happiness report 2017* (pp. 8–47). New York: Sustainable Development Solutions Network.

Helliwell, J. F., Huang, H., & Wang, S. (2018). New evidence on trust and well-being. In Uslaner, R. (Ed.), *The Oxford handbook of social and political trust* (pp. 409–446). New York: Oxford University Press.

Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society B, 359*(1449), 1435–1446.

Helliwell, J. F., & Wang, S. (2011). Trust and wellbeing. *International Journal of Wellbeing, 1*(1), 42–78.

Keyes, C. L., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *Journal of Positive Psychology, 4*(3), 197–201.

Land, K. C., & Michalos, A. C. (2018). Fifty years after the social indicators movement: Has the promise been fulfilled? *Social Indicators Research, 135*(3), 835–868.

Layard, R., with Ward, G. (2020). *Can we be happier? Evidence and ethics*. New York: Penguin.

Nichols, S., & Reinhart, R. J. (2019). Well-being inequality may tell us more about life than income. https://news.gallup.com/opinion/gallup/247754/wellbeing-inequality-may-tell-life-income.aspx

Nordhaus, W. D., & Tobin, J. (1972). Is growth obsolete? In *Economic Research: Retrospect and prospect (Vol. 5, Economic growth*) (pp. 1–80). Cambridge, MA: National Bureau of Economic Research.

OECD. (2013). *OECD Guidelines on Measuring Subjective Well-being*. Paris: OECD Publishing. http://www.oecd.org/statistics/Guidelines%20on%20Measuring%20Subjective%20Well-being.pdf

Peasgood, T., Foster, D., & Dolan, P. (2019). Priority setting in healthcare through the lens of happiness. In Global Happiness Council (Eds.), *Global happiness and wellbeing policy report* 2019 (pp. 27–52). http://www.happinesscouncil.org

Pickett, K. E., & Wilkinson, R. G. (2015). Income inequality and health: A causal review. *Social Science and Medicine, 128*, 316–326.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*(1), 141–166.

Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing "neighborhood effects": Social processes and new directions in research. *Annual Review of Sociology*, *28*(1), 443–478.

Sen, A. K. (1994). Well-being, capability and public policy. *Giornale Degli Economisti e Annali di Economia, 53*(7/9), 333–347.

Sen, A. K. (2003). Sraffa, Wittgenstein, and Gramsci. *Journal of Economic Literature, 43*(4), 1240–1255.

Stutzer, A., & Frey, B. S. (2006). Political participation and procedural utility: An empirical study. *European Journal of Political Research, 45*(3), 391–418.

VanderWeele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences, 114*(31), 8148–8156.

Van Ham, M., & Manley, D. (2012). Neighbourhood effects research at a crossroads. Ten challenges for future research Introduction. *Environment and Planning A, 44*(12), 2787–2793.

Wittgenstein, L. (1953). *Philosophical investigations*. Oxford: Blackwell.