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Abstract

The introduction of the HDI sparked a major debate about the adequacy of income as a measure of development. Perhaps as a result, scholars have developed a number of novel measures of well being. Prominent among these is the use of happiness surveys to study well being in its various dimensions, ranging from well being *within* persons, to the determinants of well being *across* individuals, to the effects of contextual factors, such as the environment, political regime, and macroeconomic conditions. Sen's capabilities approach to poverty, which underlies the HDI, highlights the lack of capacity of the poor to make choices or to take certain actions. Happiness surveys are a means to assess the well being of individuals who are constrained in their capacity to make choices or reveal preferences. This paper reviews what we know about measuring quality of life, based on extensive work with happiness surveys in Latin America, and how that accumulated knowledge can inform the debate the HDI originally sparked. It also discusses how the surveys can contribute to our understanding and measurement of empowerment. It discusses the promises – and potential pitfalls – of directly applying the findings to policy, challenges which are germane to measuring and comparing empowerment across countries.

Keywords: empowerment, poverty, happiness, policy

JEL classification: D63 – Equity; I32 – Measurement and Analysis of Poverty; J17 – Value of Life; J18 – Public Policy; Z0 – Other special topics (Happiness, Empowerment, Perceptions of Upward Mobility)

The twentieth anniversary of the Human Development Index (HDI) provides an opportunity for the international development community to re-evaluate the ways we measure welfare and human progress. The introduction of the HDI sparked a major and still unresolved debate about the extent to which income-based measures are a sufficient gauge of development on the one hand, and about the viability and robustness of non-income measures on the other. A minimum consensus underlying that debate seems to be that economic growth is a necessary but insufficient condition for countries to develop and thrive. Reflecting that implicit consensus, this year's anniversary issue of the Human Development Report takes on the concept of human empowerment, and analyzes the extent to which it is feasible and productive to incorporate it into the HDI going forward.

Since the introduction of the HDI, meanwhile, a number of novel measures of well-being have been developed and applied in research within and across countries. Prominent among these is the increasing use of happiness surveys by economists. These surveys are used to measure well-being in its various dimensions, from the range of domains that constitute well-being *within* persons, to the variance in the determinants of well-being *across* individuals, to the effects of contextual factors, such as the environment, political regime, and macroeconomic conditions.

Happiness surveys depart from traditional approaches in economic analysis, as they rely on expressed versus revealed preferences as a gauge of welfare or well-being. As such, they are uniquely well suited for answering questions that revealed preferences do not answer very well, such as the welfare effects of macro and institutional

arrangements that individuals are powerless to change, and the explanation of behaviors that are driven by norms, addiction, and self control problems. The effects of inequality, macro-economic volatility, and different governance arrangements are examples of the former, and perverse consumption or other choices, such as alcohol and drug addition, obesity, or the lack of take-up of services by discriminated groups, are examples of the latter.

Sen's capabilities-based approach to poverty, which underlies the HDI, highlights the lack of capacity of the poor to make choices or to take certain actions. In many of his writings, Sen (1995) criticizes economists' excessive focus on choice as a sole indicator of human behavior. Along these same lines, happiness surveys are a means to assess the well-being of individuals who are constrained in their capacity to make choices. As such, they could be a useful tool for exploring the concept of empowerment, simply defined in this paper as the capacity of individuals to control their economic lives and political choices.

This paper reviews what we know about measuring quality of life based on happiness and other well-being surveys, with examples from extensive research in Latin America. It discusses how that accumulated knowledge can inform the broader debate that the HDI originally sparked, and posits that happiness surveys can contribute to our understanding of the concept of empowerment, as well as to its more practical application in the HDI context. It concludes with a discussion of the promises – and the potential pitfalls – of directly applying the findings based on these measures to policy, challenges

which are very relevant to attempts to measure and compare empowerment across countries.

HDI and Income-Based Measures of Progress over the Past Years

An important example of the kind of debate that the HDI triggered is that over convergence versus divergence between developing and developed countries. This debate has primarily focused on GDP growth as a metric. To a large extent the debate is driven by how much analysis accounts for the large population size in large and fast growing countries like India, China, and more recently, Brazil, versus much smaller populations in the slow or negative growth rate countries in Sub-Saharan Africa. In addition, though, there are clearly major differences in the economic performance of developing economies across the world, differences which are driven by the policy choices made by particular countries, by institutional and other endowments, and by regional and global macroeconomic conditions.

It is well beyond the scope of this paper to review the debate over convergence and the factors that are and are not accounted for in cross-country growth regressions. (For an excellent summary of the different kinds of conclusions that can be drawn from these regressions, see Easterly (2009)). What is relevant here is the extent to which differences in countries' records in reducing income-based poverty are a result of the metrics that are utilized to make comparisons.

Measures of world-wide progress based on the HDI tell a slightly different story, meanwhile. Despite the inability of many poor countries to converge in income terms, they have actually been achieving improvements in human development at a much quicker pace than the richest countries of the world. This holds when using various measures of change in HDI: the annual rate of change in HDI, the annual rate weighted by human development level, and the short-fall gap weighted by human development level.

The second part of the HDI story – which is more nuanced than convergence versus divergence – is heterogeneity in HDI trends, by region of the world, period of reference, and sub-dimension of the index. Sixty countries in the sample experienced improvements in HDI primarily by increases in life expectancy, fifty-five by improvements in literacy, and five countries by improvements in income per capita. Achievements are faster for the post-1990 period than pre-1990, and they are faster in Africa than in Asia for both. Latin America is somewhere in the middle.

A third dimension of the story is about the determinants of change, a story which highlights the role of gender, fertility rates, and labor participation. Indeed, when fertility rates are controlled for, and the country sample includes only developing countries, the role of income in increasing both life expectancy and literacy disappears (in a cross country panel regression). The old saw that educating girls has major pay-offs in development terms is surely born out according to these measures of progress.

The documentation of this story in a recent paper by Molina and Purser (2010) – based on new HDI data and mapping changes over time – is new. Yet the pattern is a more general historical one. Due to improvements in technology and public health – and their global diffusion – poor countries have been able to achieve much higher levels of life expectancy and literacy at lower levels of per capita income than the now rich countries were able to when they were developing and industrializing. And, because poor countries start from much lower levels of these indicators, it is easier to make dramatic improvements than it is at higher levels. Gains in life expectancy, for example, that result from halting preventable diseases – at lower levels of life expectancy – are much easier to make than are gains at high levels of life expectancy and that require the cure of complex diseases such as cancer. Increasing primary literacy where there is limited coverage by providing more schools is easier than increasing the diffusion of higher levels and higher skill sets of education.

Thus the gains that the poor countries need to make to converge along these dimensions are easier to make than are the gains that rich countries need to stay equally far ahead. Many of these gains are made as a result of international interventions, such as vaccine campaigns. Achieving similar kinds of convergence in the economic growth arena, in contrast, requires countries improving governance regimes and public institutions, in addition to macroeconomic policy changes, changes which are difficult to make and even harder to sustain.

Latin America as a region is at a transition point along these lines, which helps explain why it is in the middle of the pack in terms of speed of HDI gains. One reason Africa is such a rapid gainer is that it is starting from much lower levels. Another is the amount of foreign assistance and attention the region received – certainly relative to Latin America – in the 1990's. Latin America, in contrast, had already made important gains in life expectancy, primary education, and the extension of basic health care services by the 1990's. While some countries, such as Chile, were leaps and bounds ahead of others, such as Guatemala, all but the very poorest countries in the region were well ahead of Africa in all of these areas.

Indeed, Latin America also undertook substantial economic changes during this period, changes which substantially changed the rewards structures to different skill sets. This was a period when the region liberalized its trade and financial sectors and substantially reduced the size of its public sectors (and public sector employment). The results, in terms of returns to human capital, were mixed. When the region opened up to free trade, rather than low skilled labor benefiting, as the theory would predict, instead the market for low skilled labor-based trade was taken up by India and China. In Latin America, it was high skilled – e.g. university educated – labor that benefited from the opening of the trading and financial sectors. Because high skilled labor was relatively scarce, the difference in rewards to high and low skilled labor increased. Meanwhile, with the scaling back of the public sector, workers with only secondary education saw the number of available jobs reduced substantially and the returns to their education

decrease, as reported by Behrman, Birdsall, and Szekely (2000) [See Figure 1] As a result, the region's already notoriously high levels of inequality increased.

At the same time, the region probably continued to make progress precisely because it was making public sector reforms which enhanced the ability of those institutions to extend services to the poorest sectors (often at the expense of the middle). In the late 1980's and early 1990's, this shift in targeting occurred via the wide-spread introduction of social funds throughout the region. In the latter part of the decade and into the next, several countries – most notably Mexico and Brazil – introduced large scale, conditional cash transfer programs, such as Progresa and the Bolsa Familiar, which both reduced poverty and encouraged increased usage of primary health and education services at the same time. (On targeting and social funds, see Graham (1994); on public sector reforms, see Graham (1998); on conditional cash transfer programs see Levy (2007)).

The convergence in HDI story is a classic example of how different benchmarks of progress produce a very different picture of the state of human well-being. Neither story alone is complete. Surely people are better off in countries where they have more literacy and higher levels of life expectancy. But if they are in contexts where economies do not provide opportunities for advancement, those gains will have limited effects. At the same time, people likely have all sorts of amenities and opportunities in higher income countries that they do not have in lower income ones. But if due to high levels of income inequality, a significant part of the population is either infirm or illiterate, they

can hardly benefit from them. Latin America, with its high levels of inequality, is case in point.

And, despite the different stories told by different metrics, neither tells us much about human freedom, empowerment, and capacity to choose one's destiny within these countries. This is a question which is of deep importance, but is rift with measurement and definitional problems. It is surely a challenge to incorporate this concept into the HDI, but it is one that is integral to a complete understanding of human development and well-being. The analytical approach that is used in happiness economics may provide a metric for beginning to address that challenge.

The Economics of Happiness

The economics of happiness is an approach to assessing welfare which combines the techniques typically used by economists with those more commonly used by psychologists. While psychologists have long used surveys of reported well-being to study happiness, economists only recently ventured into this arena. Early economists and philosophers, ranging from Aristotle to Bentham, Mill, and Smith, incorporated the pursuit of happiness in their work. Yet, as economics grew more rigorous and quantitative, more parsimonious definitions of welfare took hold. Utility was taken to depend only on income as mediated by individual choices or preferences within a rational individual's monetary budget constraint.

Even within a more orthodox framework, focusing purely on income can miss key elements of welfare. People have different preferences for material and non-material goods. They may choose a lower-paying but more personally rewarding job, for example. They are nonetheless acting to "maximize utility" in the neoclassical economics sense.

The study of happiness or subjective well-being is part of a more general move in economics that challenges these narrow assumptions. The introduction of bounded rationality – which posits that most people are only as rational as their available information, environment, and intellect permit – and the establishment of behavioral economics have opened new lines of research. Happiness economics – which represents one new direction – relies on more expansive notions of utility and welfare, including interdependent utility functions, procedural utility, and the interaction between rational and non-rational influences in determining economic behavior.

Richard Easterlin was the first modern economist to revisit the concept of happiness, beginning in the early 1970s. More generalized interest took hold in the late 1990s, and a number of economists began to study happiness and its relationship with a number of variables of interest, ranging from income, socio-demographic variables, and employment status to the nature of political regimes, the level of economic development, and the scope and quality of public goods, among others (see Easterlin, 1974; 2003; Blanchflower and Oswald, 2004; Clark and Oswald, 1994; Frey and Stutzer, 2002a; Graham and Pettinato, 2002; Layard, 2005).

The economics of happiness does not purport to replace income-based measures of welfare but instead to complement them with broader measures of well-being. These measures are based on the results of large-scale surveys, across countries and over time, of hundreds of thousands of individuals who are asked to assess their own welfare. The surveys provide information about the importance of a range of factors which affect well-being, including income but also others such as health, marital and employment status, and civic trust.

The approach, which, as noted above, relies on expressed preferences rather than on revealed choices, is particularly well suited to answering questions in areas where a revealed preferences approach provides limited information. Indeed, it often uncovers discrepancies between expressed and revealed preferences. Standard economics relies on revealed preferences – typically measured by consumption choices – as a gauge of individual welfare. Indeed, for many years, economists shied away from survey data – e.g. expressed preferences. The assumption was that these data could not be trusted: there is no consequence to answering surveys, as opposed to the trade-offs involved in making consumption choices. Yet, as noted above, revealed preferences cannot fully gauge the welfare effects of particular policies or institutional arrangements which individuals are powerless to change.

Happiness surveys are based on questions in which the individual is asked, 'Generally speaking, how happy are you with your life' or 'how satisfied are you with your life', with possible answers on a four-to-seven point scale. Psychologists have a

preference for life satisfaction questions. Yet answers to happiness and life satisfaction questions correlate quite closely. The correlation coefficient between the two – based on research on British data for 1975–92, which includes both questions, and Latin American data for 2000–1, in which alternative phrasing was used in different years – ranges between .56 and .50 (Blanchflower and Oswald, 2004; Graham and Pettinato, 2002).

Differences in the phrasing of happiness questions present several methodological challenges. The particular kind of happiness question that is used matters to the results. For example, respondents' income level seems to matter more to their answers to life satisfaction questions than it does to their answers to questions which are designed to gauge the innate character component of happiness (affect), as gauged by questions such as "how many times did you smile yesterday". In more technical terms, the correlation between life satisfaction questions and income is much stronger than that between affect questions and income.

Happiness questions are also particularly vulnerable to order bias – in other words where they are placed in a survey. People will respond differently to an open-ended happiness question that is in the beginning of a survey than to one that is framed or biased by the questions posed beforehand, such as those about whether income is sufficient or the quality of their job. To minimize this, happiness or life satisfaction questions must be placed at the beginning of surveys. And, as with all economic measurements, any individual's answer may be biased by idiosyncratic, unobserved

events (ranging from the break up of a relationship to the victory of a favorite team in football on the day that the respondent answers a survey).

Bias in answers to happiness surveys can also result from unobserved personality traits and related errors which affect how the same individuals answer a range of questions. A naturally curmudgeonly person, for example, will answer all sorts of questions in a manner that is more negative than the average. (These concerns can be addressed via econometric techniques if and when we have panel data). Related concerns about unobservable variables are common to all economic disciplines, and not unique to the study of happiness. For example, a naturally cheerful person may respond to policy measures differently and/or put more effort in the labor market than the average. Standard analysis would attribute those outcomes to differences in incentives rather than in character, which would introduce error into the resulting conclusions.

Despite the potential pitfalls, cross-sections of large samples across countries and over time find remarkably consistent patterns in the determinants of happiness. Psychologists, meanwhile, find validation in the way that people answer these surveys based in physiological measures of happiness, such as the frontal movements in the brain and in the number of 'genuine' – Duchenne – smiles (Diener and Seligman, 2004).

Micro-econometric happiness equations have the standard form: $W_{it} = \alpha + \beta x_{it} + \varepsilon_{it}$, where W is the reported well-being of individual i at time t, and X is a vector of known variables including socio-demographic and socioeconomic characteristics.

Unobserved characteristics and measurement errors are captured in the error term. Because the answers to happiness surveys are ordinal rather than cardinal, they are best analyzed via ordered logistic or probability (probit) equations. These equations depart from standard regression equations, which explore a continuous relationship between variables (for example happiness and income), and instead explore the probability that an individual will place him or herself in a particular category, typically ranging from unhappy to very happy. These regressions typically yield lower R-squares than economists are used to. This reflects the extent to which emotions and other components of true well-being are driving the results, as opposed to the variables that we are able to measure, such as income, education, and marital and employment status.

The availability of panel data in some instances, as well as advances in econometric techniques, are increasingly allowing for sounder analysis (Van Praag and Ferrer-i-Carbonell, 2004). The coefficients produced from ordered probit or logistic regressions are remarkably similar to those from OLS regressions based on the same equations, allowing us to substitute OLS equations for ordered logit or probit and then attach relative weights to them. While it is impossible to measure the precise effects of independent variables on true well-being, happiness researchers have used the coefficients on these variables as a basis for assigning relative weights to them. They can estimate how much income a typical individual in the United States or Britain would need to produce the same change in stated happiness that comes from the well-being loss resulting from, for example, divorce ($100,000) or job loss ($60,000) (Blanchflower and Oswald, 2004).

This research highlights the importance of the non-income determinants of well-being – such as health, education, and social arrangements – in a manner that traditional measures do not and that could serve as a complement to the HDI. While these weights should be taken as differences in orders of magnitude rather than as precise numbers that can quantify happiness, they still give us a very different picture of the role of income in determining well-being than do income measures alone, analogous to the different measures of progress and development that are highlighted by the HDI.

Table 1 shows basic happiness regressions for three very different regions: Latin America, Russia, and the United States. The regressions reported therein are ordered logit specifications, which in theory do not allow for comparing the weights of coefficients. Yet the same equations, run with OLS specifications, yield virtually identical results. Assuming that rough comparisons can be made (as has become standard practice in the literature), these tables suggest that in all instances health is more important to well-being than is income in all three very different regions. Figure 2, meanwhile, shows the relative importance of friendships to happiness in Latin America. After having enough food to eat, having friends or family to rely on in times of need is more important to the happiness of Latin Americans than is a job, health, or personal assets.

When the sample is split into respondents that are above and below median income, meanwhile, the "friends-effect" holds for the poor sub-sample, while work and health are more important to the well-being of the wealthier group. While one can imagine the effect that these variables have on well-being in general, this difference

makes sense in a region where there are few institutionalized systems of social insurance. The rich have much more of a guarantee that their work and their health will allow them to provide for themselves and their families, while the poor are realistic in knowing that they are likely to have to rely on friends or family in times of need.

More generally, while there are surely modest differences across regions, happiness research allows us to identify the non-income factors that are most important to well-being. It also allows us to make at least rough comparisons of their relative importance, as well as benchmark them against income-based metrics. Table 2, which compares Latin America to the rest of the world along these lines, is illustrative.

The Easterlin paradox

In his original study, Easterlin revealed a paradox that sparked interest in the topic but is as yet unresolved. While most happiness studies find that *within* countries wealthier people are, on average, happier than poor ones, studies across countries and over time find very little, if any, relationship between increases in per capita income and average happiness levels. On average, wealthier countries (as a group) are happier than poor ones (as a group); happiness seems to rise with income up to a point, but not beyond it. Yet even among the less happy, poorer countries, there is not a clear relationship between average income and average happiness levels, suggesting that many other factors – including cultural traits – are at play. [See Figure 3]

More recently, there has been renewed debate over whether there is an Easterlin paradox or not. A number of scholars, such as Deaton (2008), and Stevenson and Wolfers (2008), have published papers demonstrating a clear, relationship between per capita incomes and average happiness levels, with no sign that the correlation weakens, either as income levels increase or over time on a log-linear model specification. Indeed, the work of both sets of authors suggests that the slope may be steeper for richer countries, most likely because wealthier people are better able to enjoy higher levels of income than are poor ones (a greed effect?). Deaton gets a positive and significant coefficient on a squared specification of the income variable. Stevenson and Wolfers split their sample into those countries above and below $15,000 per capita (in year 2000 U.S. dollars), they get a slightly steeper slope for the rich countries than for the poor ones.

Both of these studies rely on the newly available Gallup World Poll, which covers over 120 countries world-wide, as well as some different data sets for earlier years. Inglehart et al (2008), meanwhile, in a new analysis of data from the World Values Survey for 1981-2006 finds that subjective well-being rose in 77% of the 52 countries for which time series is available. Lora and colleagues at the Inter-American Development Bank (2008), using Gallup data for Latin America, also find a positive relationship between per capita income levels and average happiness levels.

Other studies come out somewhere in the middle. My own work with Stefano Pettinato – the first study of happiness in a large sample of developing countries, using absolute levels of per capita GDP, finds that, on average, happiness levels are higher in

the developed than in the developing countries in the sample, but that *within* each group of countries, there is no clear income-happiness relationship. [Figure 3]

Why the discrepancy? For a number of reasons – many of them methodological, the divergent conclusions may each be correct. The relationship between happiness and income is mediated by a range of factors that can alter its slope and/or functional form. These include the particular questions that are used to measure happiness; the selection of countries that is included in the survey sample; the specification of the income variable (log or linear); the rate of change in economic conditions in addition to absolute levels; and changing aspirations as countries go from the ranks of developing to developed economies. It is not much of an intellectual stretch, meanwhile, to see how the debate over the Easterlin paradox is analogous to the discrepancies that economists find as they compare countries' development progress based on income based and HDI based measures.

There is much less debate about the relationship between income and happiness within countries. Income matters to happiness (Oswald, 1997; Diener et al., 2003), among others). Deprivation and abject poverty in particular are very bad for happiness. Yet after basic needs are met other factors such as rising aspirations, relative income differences, and the security of gains become increasingly important, in addition to income. Long before the economics of happiness was established, Duesenberry (1949) noted the impact of changing aspirations on income satisfaction and its potential effects on consumption and savings rates. A number of happiness studies have since confirmed

the effects of rising aspirations, and have also noted their potential role in driving excessive consumption and other perverse economic behaviours (Frank, 1999).

Thus, a common interpretation of the Easterlin paradox is that humans are on a 'hedonic treadmill': aspirations increase along with income and, after basic needs are met, relative rather than absolute levels of income matter to well-being. Another interpretation of the paradox is the psychologists' 'set point' theory of happiness, in which every individual is presumed to have a happiness level that he or she goes back to over time, even after major events such as winning the lottery or getting divorced (Easterlin, 2003). The implication of this theory for policy is that nothing much can be done to increase happiness.

Individuals are remarkably adaptable, no doubt, and in the end can get used to most things, and in particular to income gains. They can also get used to misery. As is discussed in greater detail below, individuals' psychological capacity to adapt – even to what seem to be intolerable conditions in some instances – may result in collective tolerance for very bad equilibrium.

The behavioral economics literature, meanwhile, shows that individuals value losses more than gains (see Kahneman, Diener and Schwarz, 1999, among others). Related to this, my own research finds that people have a hard time adapting to uncertainty. Economic crisis, for example, is deleterious for happiness, not least because of the uncertainty that it causes. During 1998 crisis in Russia and the 2001 crisis in

Argentina, happiness levels fell significantly: 8.7% and 10.7% respectively. It is important to put these movements in perspective: average national happiness levels do not move much, if it all, over time. While happiness levels eventually recovered, along with the respective economies, the falls are of a remarkable order of magnitude.

In related work, Sandip Sukhtankar and I examined the effects of the 2001-2002 crises in Latin America on happiness in the region in general. We separated our sample of 18 countries in the Latinobarometro data set into those countries that had experienced negative levels of GDP growth (the crisis countries) and those that had not (see Graham and Sukhtankar, 2004). While this is far from a perfect definition of crisis, it is surely a parsimonious one. Individuals in the crisis countries had above average happiness levels before the crisis, and below average levels after (controlling for the usual socio-economic and demographic factors). The effects were large, but temporary. In subsequent years, as growth recovered, happiness in most of these countries returned to the pre crisis level. [Figure 4]

My newest research – with Soumya Chattopadhyay and Mario Picon, see Graham, Chattopadhyay, and Picon, (forthcoming), and based on a new Gallup survey of approximately 1000 Americans per day from January 2008 to the present – shows that average happiness in the U.S. declined significantly as the Dow fell with the onset of the crisis. It fell 11% from 6.94 (on an 11 point scale) prior to the onset of the crisis, to a low of 6.19 on November 16, 2008. Yet when the market stopped bottoming out and some semblance of stability was restored in late March 2009, average happiness recovered

much faster than the Dow. By June 2009 it was higher than its pre-crisis level: 7.15 on June 21 – even though living standards and reported satisfaction with those standards remained markedly lower than they were prior to the crisis. Once the period of uncertainty ended, people seemed to be able to return to previous happiness levels, while making do with less income or wealth. Adapting to unpleasant certainty seems to be easier than coping with uncertainty. [See Figure 5]

Easterlin argues that individuals adapt more in the income or financial arenas than in non-income related arenas (as the above example suggests), while life changing events have lasting effects on happiness. Yet, because most policy is based on pecuniary measures of well-being, it overemphasizes the importance of income gains to well-being and underestimates that of other factors, such as health, family, and stable employment. The issue of adaptation, meanwhile, poses significant challenges for the task of measuring empowerment (discussed below).

Selected applications

Some studies have attempted to separate the effects of income from those of other endogenous factors, such as satisfaction in the workplace. Studies of unexpected lottery gains find that these isolated gains have positive effects on happiness, although it is not clear that they are of a lasting nature (Gardner and Oswald, 2001). Other studies have explored the reverse direction of causality, and find that people with higher happiness levels tend to perform better in the labour market and to earn more income in the future (Diener et al., 2003; Graham, Eggers and Sukhtankar, 2004).

A related question, and one which is still debated in economics and is surely relevant to the concept of empowerment if defined as individuals' ability to define their own destiny, is how income inequality affects individual welfare. Interestingly, the results differ between developed and developing economies. Most studies of the United States and Europe find that inequality has modest or insignificant effects on happiness. The mixed results may reflect the fact that inequality can be a signal of future opportunity and mobility as much as it can be a sign of injustice (Alesina et al., 2004). In contrast, recent research on Latin America finds that inequality is negative for the well-being of the poor and positive for the rich. In a region where inequality is much higher and where public institutions and labour markets are notoriously inefficient, inequality signals persistent disadvantage or advantage rather than opportunity and mobility (Graham and Felton, 2005).

Happiness surveys also facilitate the measurement of the effects of broader, non-income components of inequality, such as race, gender, and status, all of which seem to be highly significant (Graham and Felton, 2005). These results find support in work in the health arena, which finds that relative social standing has significant effects on health outcomes (Marmot, 2004).

Happiness research can deepen our understanding of poverty. The set point theory suggests that a destitute peasant can be very happy, while a millionaire can be miserable. (What I call the "happy peasant" problem in much of the literature). While this contradicts a standard finding – namely, that poor people are less happy than wealthier

people within countries – it is suggestive of the role that low expectations or adaptation to bad circumstances can play in explaining persistent poverty in some cases. The procedural utilities and capabilities approaches, meanwhile, emphasize the constraints on the choices of the poor.

What is perceived to be poverty in one context may not be in another. People who are high up the income ladder can identify themselves as poor, while many of those who are below the objective poverty line do not, because of different expectations (Rojas, 2004). In addition, the well-being of those who have escaped poverty is often undermined by insecurity and the risk of falling back into poverty. Income data does not reveal the vulnerability of these individuals, yet happiness data shows that it has strong negative effects on their welfare. Indeed, their reported well-being is often lower than that of the poor (Graham and Pettinato, 2002).

Happiness surveys can be used to examine the effects of different macro-policy arrangements on well-being. Most studies find that inflation and unemployment have negative effects on happiness. The effects of unemployment are stronger than those of inflation, and hold above and beyond those of forgone income (Di Tella, MacCulloch and Oswald, 2001). The standard 'misery index', which assigns equal weight to inflation and unemployment, may be underestimating the effects of the latter on well-being (Frey and Stutzer, 2002b).

Political and other institutional arrangements also matter. Much of the literature finds that both trust and freedom have positive effects on happiness (Helliwell, 2003; Layard, 2005). Research based on variance in voting rights across cantons in Switzerland finds that there are positive effects from *participating* in direct democracy (Frey and Stutzer, 2002b). Research in Latin America finds a strong positive correlation between happiness and preference for democracy (Graham and Sukhtankar, 2004). There is some recent research that shows that higher levels of participation in religious organizations is linked to higher levels of happiness – even for the non-religious respondents that live in those regions. (Clark and Lelkes, 2009). These findings hold even when controls for social capital – e.g. the extent to which people participate in all sorts of civic organizations – are included. At the same time, *both* sets of variables may be picking unobservable character traits that explain both civic and religious participation. These issues are, of course, relevant to how we conceptualize and attempt to measure empowerment.

Finally, people seem to adapt to institutional and other social arrangements that are non-optimal, such as high levels of crime and corruption. In recent work on Latin America with Soumya Chattopadhyay, I find that the higher the generalized crime level or crime norm in a country, the lower the unhappiness effect of being a crime victim (see Graham and Chattopadhyay, 2008b). A related study by Cardenas et al (2009) finds that respondents that report having been a victim of crime once in the past year are less happy, on average, than others, but those that report being a victim of more than one crime show no significant negative effects on wellbeing. Both studies are likely picking

up some sort of adaptation to higher levels of crime, as well as the higher stigma that comes from being victimized when crime is a less common event. Powdthavee (2005) reports similar evidence in South Africa.

Andy Felton and I, meanwhile, find similar evidence of adaptation in the health arena in the United States. While obese people are, on average, less happy than others, they are far less unhappy when they are in higher obesity cohorts – where obesity is the norm and there is less stigma. These cohorts tend to be lower income and lower skilled professionally, and also typically have less upward income mobility than others. As noted above, adaptation to these phenomena may be good from an individual psychological perspective but bad in collective terms.

Using Happiness Surveys to Measure Empowerment: A Suggested Methodological Approach and Some Conceptual Challenges

Can happiness and other quality of life measures help us define and understand empowerment? Accurately assessing or measuring empowerment is a complex challenge, not least because of the difficulty of defining the concept. Empowerment can be conceived of very simply in economic dimensions, such as the extent to which people have a sense of control over their own destinies and opportunities for future mobility (a definition that seems the most feasible for the author of this paper). Yet the concept also has many other dimensions, such as political freedom and voice; access to social networks and the wide range of support that they provide, both for upward mobility and protection from vulnerability; and freedom from discrimination at many levels, ranging

from gender within the household to ethnic and racial distinctions in communities and countries.

The definition of empowerment is key to its measurement, and that exercise is beyond the scope of this paper. While well-being surveys cannot solve questions of definition, they may be a good way to gauge the extent to which people feel empowered (or not), once a definition is agreed upon. Well-being surveys get around the problem that is posed in assessing the preferences of individuals who lack the capacity or agency to make choices.

There are a number of standard questions in most well-being surveys that could be used to gauge the extent to which people feel empowered, and how that varies across a particular population. One very simple – and unframed question – asks people about their and their children's future prospects of mobility. The question asks respondents if they think they will live better, the same or worse, in the future than they do now, and then repeats the question, asking them how they think they children will live in the future compared to how the respondents themselves live now.

My own research, and that of several others, shows that those that have high prospects of upward mobility – for themselves and for their children – are typically happier and more optimistic than the average, more willing to put forth effort in the labor market, and more likely to invest in their future, both via their own savings and via investments in their children's education. At the simplest level, this is a form of

empowerment: they are vested enough in the system to have faith in its ability to provide them opportunities in the future and as a result are willing to invest in their own destiny. Respondents with lower prospects of upward mobility, meanwhile, typically are less happy and optimistic and have higher discount rates when it comes to investments in their own economic future and even in their own health. (See Birdsall and Graham (2000) and the essays there-in; Graham, Eggers, and Sukhtankar (2004); and Haskins and Sawhill (2009)).

More complex conceptualizations of empowerment – such as those pertaining to political agency, social networks, and freedom from discrimination, could also be explored by well-being surveys. There are many questions that I (and other scholars) have used, which range from those designed to gauge levels of trust in the system and in particular institutions (political and other); to those which gauge faith in the economic system, by asking respondents if they believe that "a poor person in your country can overcome poverty if he or she works hard", and/or which ask whether hard work or connections are more important to success; to those which ask respondents if they have friends or family they can rely on at times of need, among others. There are also a range of questions which attempt to measure social and ethnic cohesion, by asking respondents to self report as a minority or not, and/or to report if they have felt discrimination on the grounds of socioeconomic status, regional origin, or race.

The responses to such questions can then be analyzed in a multivariate framework which explores the extent to which positive (or negative) scores on the various measures

of empowerment correlate with outcome variables of interest, such as socio-economic status, preference for democracy, trust in institutions, and so on. The results of such an analysis might even help narrow down the most useful definition of empowerment for possible incorporation into the HDI.

Such an exercise is not free of measurement and other methodological challenges. At the same time it provides an opportunity to use survey research to compare levels of empowerment across countries and across cohorts within them, while fine tuning the definition of the concept along the way. Many of these questions have been used in Latin America already, via the Latinobarometro and ECOSOCIAL survey. The region's diversity in terms of poverty levels, institutional capacity, and variance in ethnic composition provide a good testing ground, meanwhile.

One way to take on this exercise would be to begin with three sets of questions, each of which represents a dimension of empowerment: opportunity, trust in the system, and freedom from discrimination. The first set would include a question about how respondents saw their economic future (five or ten years hence) compared to their current situation (worse, same, better); how they lived today compared to five years ago, and then how their children would live compared to how they live (worse, same, better). Another question, which can be used to gauge attitudes about mobility is whether education or connections are more important to getting ahead. I have used such questions in countries around the world, and most extensively in Latin America, and they seem to be consistent estimators of attitudes about mobility and opportunity. These perceptions of

mobility would have to then be benchmarked against objective data on the respondent's income and education levels, age, race, and gender, among other variables. If panel data were available, they could also be benchmarked against objective trends in mobility.

A second set of questions would explore general levels of trust in the system, as well as how they vary across countries and cohorts within them. These would combine attitudes about the system's ability to provide widely shared opportunities with those about public institutions. To capture the first, this set of questions could include: "a poor person in your country can overcome poverty if she or he works hard"; and "in this country, is it more important to work hard or to have connections to get ahead" or some derivation there-of. Finally, a question about safety nets and social capital might also relevant, such as whether the respondent has friends or family he or she can rely on at times of need. Trust in government, meanwhile, should be broken up into macro and micro level institutions, and cover respondents' levels of trust in the parliament, political parties, the judiciary, and the police, among others. An additional and more objective question, which would help benchmark the results on levels of trust against actual experience in the institutional framework, would ask respondents whether or not they had been a victim of crime or corruption (in separate, respective questions) in the past year.

The third set of questions would explore discrimination. The ECOSOCIAL asks respondents whether or not they feel have been discriminated against due to their race, to their region of origin, or to their socioeconomic status (in respective questions). These questions would then be benchmarked against objective socioeconomic data:

respondents' ethnic identity, whether they were a minority or not; whether they were migrants or not (defined as having been born in the place that they now live); and their socioeconomic status and gender, among other things.

The results from this exercise would likely result in some modification of the questions and conceptual strategy. My own research on trust in the system in Latin America in Graham and Picon (2009), for example, finds some paradoxical results which on the one hand suggest that caution in necessary in inferring too much from survey data and on the other suggests that empowerment may be inversely linked to trust in the "system", at least as it is currently functioning in Latin America. The paradoxes and inconsistencies in the responses, meanwhile, suggest caution in combining the results from the three sets of questions into one composite measure or index, as the results for the same respondents or cohorts do not always run in a consistent direction.

We find, for example, that the least educated respondents and migrants are the most trusting of public institutions, with the exception of the police, which is likely the one institution that they have direct knowledge of. At the same time, wealthier and more educated respondents are much less trusting of the institutions of government and more trusting of the police. Believing that there are opportunities for the poor is linked to higher prospects of upward mobility, meanwhile. Wealthier respondents, meanwhile, are less likely to believe the system provides broadly shared opportunities than are the poor, but more likely to believe in the role of education in success. This likely reflects their

own experience: they know that the advantages provided by their education have served them well, and in the process of getting ahead are skeptical of the system's fairness.

These findings suggest that those respondents who have benefited the most from the system – who are also the most empowered – are also the most skeptical of it, while those who are the least empowered are rather naïve about how the system operates. At least in Latin America, there is likely to be a J-curve of sorts, where frustration with the system actually increases as citizens become more aware and "empowered", frustration which may in the end increase public demand for better institutions.

Another conceptual challenge that stems from our findings is related to perceived discrimination. In Latin America, perceived discrimination for socioeconomic reasons is much more prevalent than is discrimination for racial or regional regions. That said, respondents that report to perceive discrimination are significantly less happy than others, as well as less likely to believe that there are opportunities for the poor and that hard work is important to success. The direction of causality is difficult to establish, as less happy people are more likely to report discrimination. In addition, migrants and minorities were typically happier and had higher prospects of mobility than the average for Latin America. There is no direct correlation between minority and migrant status and perceptions of discrimination, meanwhile.

All of this suggests that the measurement of empowerment is as difficult as its definition, as the most empowered respondents may be the most skeptical of precisely the

institutions that benefit them the most. At the same time, perceptions of discrimination are driven by innate character traits as much as by environmental conditions. Those perceptions, in turn, have real effects on people's decisions about work effort, savings, and education, and thus may play as negative a role in outcomes as can actual discrimination experiences.

This is an example of how survey research can deepen our understanding of a concept such as empowerment in the process of attempting to measure it. It also suggests that regardless of how an index of empowerment is structured, it needs to incorporate both objective and subjective measures, so as to benchmark attitudes against objective measures. This, in turn, may then require the incorporation of econometric and other techniques which can account for non-linear relationships, such as trust in institutions initially decreasing as empowerment increases. This is particularly relevant in contexts where public institutions are still relatively weak, as in Latin America.

The rest of the paper provides an example of a large scale application of well-being surveys to the measurement of quality of life in Latin America, and then raises some challenges to directly applying the results to policy questions. The latter reflect some of the conceptual challenges highlighted in this section and are relevant to the exercise of measuring empowerment and incorporating the concept into policy decisions. This is surely not intended to discourage that effort, but rather to inform it and to raise some notes of caution going forward.

Using Happiness Surveys to Measure Quality of Life in Latin America

In a recent cross-country research effort, sponsored by the Inter-American Development Bank, Eduardo Lora and I collaborated with teams from institutions throughout the region and used survey research to assess well-being across a range of domains. Our effort was a first step towards developing quality of life indicators that the Bank could potentially use in its work in the region. (Detailed results are in Graham and Lora (2009)). Our results are relevant to the challenge of incorporating a concept such as empowerment into a metric like the HDI, and suggest the potential and the limits of using happiness surveys as a tool for doing so.

Latin America is a region that is diverse in terms of culture and levels of development. This provides a laboratory for studying how quality of life varies with a number of important objective and subjective measures, including per capita income but also including others such as job insecurity, job satisfaction, schooling attainment, educational quality, nutritional insecurity, personal insecurity, mortality, and self-assessed health.

The concept of quality of life is a broad one, which incorporates basic needs but extends beyond them to include capabilities, as typically measured by the UNDP's human development index (HDI); the "livability" of the environment, as measured by income per capita and growth; and life appreciation and happiness, as measured by well-being surveys. Our study focused on reported or subjective well-being ("happiness" or

"satisfaction"), a concept that differs from but complements other indicators of the quality of life.

The variables used in our study of well-being and quality of life were by definition multi-faceted. We used individual and national level variables, as well as objective and subjective indicators. For objective indicators at the individual level, we used the standard socio-economic and demographic variables, such as income, housing characteristics, employment status, age, gender, and schooling levels. We also included assessments of inter-personal conditions, such as friendships and community engagement, and relative measures of economic status, such as reference group income. These objective indicators were matched with respondents' assessments of their happiness, life satisfaction, satisfaction with domains such as security, health, education, and jobs, as well as assessments of the general situation of the country and the state of public services. (See Luttmer (2005), Lora (2008), and Graham and Felton (2006)).

At the national level, our variables included economic indicators such as GDP, inflation, and levels of poverty and inequality, as well as political and institutional variables, such as rule of law and the quality of public institutions. These were then benchmarked against national averages of individual responses to happiness and life satisfaction questions, as well as those about the general situation of the country, economy, and public services.

We relied primarily on the Gallup World Poll. The world poll has been conducted annually for years, but since 2006 has expanded its coverage to over 130 countries, of which 23 to 25 are from Latin America, depending on the year, and also includes several questions about life satisfaction. Approximately 1000 individuals are interviewed in each country, and the surveys are nationally representative. There are over 100 quality of life related questions in the World Poll, and 25 of them are asked in Latin America only. We complemented the Gallup World Poll data with various other data sources, such as standard household surveys on income and employment. We also made some use of the Latinobarómetro public opinion survey, which has been polling approximately 18,000 respondents across 18 countries in the region for over a decade. The survey also covers approximately 1000 respondents per country, and achieves national representation in most.

The samples are nationally representative except for Brazil and Paraguay. The survey is produced by the NGO Latinobarómetro, a non-profit organization based in Santiago de Chile and directed by Marta Lagos (www.Latinobarómetro.org). The first survey was carried out in 1995 and covered 8 countries. Funding began with a grant from the European Community and is now from multiple sources. Access to the data is by purchase, with a 4 year lag in public release. This paper includes data collected in 2007, the latest available year.

We found a number of paradoxes in which positive results as assessed by one indicator are negative as assessed by another. These paradoxes challenge some of the

standard assumptions in traditional economics, such as about the relationship between income and happiness. Secondly, they have important substantive links with several of the region's realities, such as high levels of income inequality, volatile macroeconomic performance and high levels of insecurity, and generally low expectations of public institutions and faith in the capacity of the state to deliver – all of which are phenomena which are relevant to the concept of empowerment.

Perceptions Paradoxes

Public perceptions are not always informed by objective trends; indeed some of the most important information may be found in the gaps between perceptions and objective trends. One reason for these gaps is imperfect information. The public typically relies on anecdotes in the media for its information, such as accounts of a recent corruption scandal or a botched privatization. In contrast, economists make assessments of the welfare gains or losses of particular policies based on aggregate and often complex data sets that are not easily understood by the average citizen. And "success" as measured by the marginal welfare benefits of a privatization that results in broader public access to services at similar tariff rates, for example, is hardly the makings of a news story that captures public attention.

At the individual level, it is typically not the poorest people that are most frustrated or unhappy with their conditions or the services that they have access to. Graham and Pettinato (2002) identified a phenomenon that is now termed the "happy peasant and frustrated achiever" paradox. Very poor and destitute respondents may report

high or relatively high levels of well-being, while much wealthier ones with greater available opportunities report much lower ones. This may be because the poor respondents either have a higher natural level of cheerfulness or have lower expectations, while the wealthier ones have higher and possibly rising expectations (or are naturally more curmudgeon-like). Regardless of the balance between objective conditions and individual character traits driving the paradox, it presents challenges when inferring policy relevant information from opinion surveys.

At the country level, Eduardo Lora and I find a related paradox that we have called the "paradox of unhappy growth". As noted above, there is much debate in the literature about the extent to which per capita GDP levels and average happiness across countries are correlated. Based on the Gallup World Poll in 122 countries around the world, we find that countries with higher levels of per capita GDP have, on average, higher levels of happiness, as found by most scholars, as noted above. Yet controlling for levels of per capita GDP, they find that individuals in countries with positive growth rates have lower happiness levels – e.g. the paradox of unhappy growth. Deaton (2008), and Stevenson and Wolfers (2008) also find evidence of an unhappy growth effect in the Gallup World Poll. [See Figure 6]

The paradox is stronger for countries above mean per capita GDP in the sample (which is above the middle income developing country level). For the richer countries, higher growth rates are associated with lower happiness levels, as well as with lower economic, health, job, and housing satisfaction. The only variable that is significant and

negative on growth for poor countries is health satisfaction (and one could posit many reasons why the change in work habits that often accompanies growth booms might be negative for health). When the sample is split according to growth rates, the negative effects of growth on well-being only hold for countries with above average rates. Stevenson and Wolfers (2008), also based on a world wide Gallup sample as well as on earlier data from the World Values survey going back several decades, and again controlling for levels, find insignificant effects of growth in general, but negative effects of rapid growth, as in the case of the Irish miracle and the Korean growth boom.

Graham and Chattopadhyay (2008), using Latinobarómetro data, also find evidence of an unhappy growth effect, albeit a modest one. When we include the current GDP growth rate in the equation, as well as the lagged growth rate from the previous year (controlling for levels), they find that the effects of growth rates – and lagged growth rates – are, for the most part, negative. [See Figure 7]

It may well be that this unhappy growth is driven by its nature in rapidly changing economies, where growth is often accompanied by changes in rewards to different skill sets and increased job insecurity for some groups, and by increases in vertical or horizontal inequality or both. Latin America in recent decades certainly fits this pattern, which may help explain unexpected pockets of frustration in relatively prosperous countries like Chile.

A third, related paradox is the "aspirations paradox". Based on several different data sets, Eduardo Lora and I (Gallup and Latinobarometro) find that there is no clear relationship between average per capita income levels and satisfaction with education and health systems across countries in the region. Within countries, wealthier respondents are more likely to be satisfied with their health than are poor ones. Still, there is clearly an "optimism bias" in the responses of the poorest. Those in the highest quintile in the region hold 57% of the income (on average), while those in the poorest quintile hold 4%. But the differences in their perceptions are much smaller. Seventy-nine percent of individuals in the highest quintile declare themselves satisfied with their material or economic quality of life, while 57% of those in the lowest quintile say they are satisfied. There is a similar "optimism bias" in the responses of the poor as they assess their living conditions and public policies in their countries. Informal sector workers, for example, report less job insecurity than do formal sector workers, even though their objective conditions are far more precarious than their formal sector counterparts. (See Inter-American Development Bank, 2008, Chapter 7 and Graham and Chattopadhyay, 2008).

This paradox is likely due to lower expectations and poorer available information among those living in poorer contexts, as well as lower expectations. For wealthier individuals and respondents in wealthier countries, aspirations and awareness may go up as much if not more rapidly than improvements in service provision (and/or economic growth). At the same time, there is also inconsistent usage of available information – such as test scores – among slightly wealthier respondents. A surprisingly small amount of school choice, for example, is informed by test score results (in Chapter 7 of Inter-

American Development Bank, 2008). This among other things, may contribute to increased public frustration in the face of improvements in service quality, to the extent that improvements in quality also heighten awareness among previously less informed (and more satisfied) users.

The paradoxes are of varying levels of importance, depending on the quality of life domain that is studied. Not surprisingly, economic domains are more affected by aspirations related paradoxes than other domains, such as health assessments or life purpose assessments (which are by definition more personal and subjective). The gaps between perceptions and objective measures, meanwhile, seem to be greater at the individual level rather than at the average country level (perhaps not a surprise as there is more variance); for richer rather than poorer countries (as relative deprivation effects seem to increase as average wealth increases); and for poorer rather than richer individuals (perhaps because they have less good information to make assessments, as well as lower expectations). (See Inter-American Development Bank, 2008, and Graham and Felton, 2006). It is precisely in identifying these gaps between subjective and objective measures of welfare, and seeking an explanation for them, that our research provides a contribution to our understanding of quality of life in Latin America and beyond – and may inform the discussion on the appropriate definition of empowerment.

When one compares the responses of individuals within countries, there is clearly the optimism bias that we refer to above among the poor. While the individual subjective rankings of quality of services and satisfaction with personal economic situations of those

in the wealthiest quintile are slightly higher than those in much poorer quintiles, the difference in the scores is an order of magnitude smaller than is the difference in their income levels or access to and quality of services.

As in many other contexts where happiness has been studied, the incomes of others have effects on individual happiness. While wealthier people are happier than less wealthy ones on average, people of similar income levels are less happy when the incomes of those in a relevant reference group, ranging from neighbors to professional cohorts, to towns and cities, are higher. (See Graham and Felton, 2006, Luttmer, 2005, and Kingdon and Knight, 2007). The same effect holds for Latin America, based on analysis from the Gallup Poll, as well as from the Latinobarómetro.

For the Gallup Poll for Latin America, reference group income is positively correlated with life satisfaction (in a ladder of life question) but negatively correlated with satisfaction with one's standard of living, job, and housing. [See Figure 8] In earlier work based on Latinobarómetro, Graham and Felton (2006) find that average country level incomes do not matter to individual happiness, but relative income differences – measured as distance from the mean for the average income in one's country – does matter. Thus even though a poor peasant in Honduras is half as wealthy as a poor Chilean, the former is happier because his/her distance from mean income is smaller. This effect holds across cities of different sizes, but is stronger for large cities where there is more income variance and smaller for small cities, where average income levels are positively correlated with happiness (even though relative incomes are still negatively

correlated). Because there is not a good income variable in the Latinobarómetro, the authors use an index of assets to proxy for wealth/income. See Graham and Felton (2006). [See Figure 9]

When the Gallup sample is split into above and below median income groups, the comparison effect holds for both groups, with the difference being that health satisfaction is significant and negative for the below average group, but insignificant for the rich, while job satisfaction is significant and negative for the rich but not for the poor, implying that the poor and the rich value different domains as they make comparisons. When the sample is split into urban and rural, the effects largely hold for the urban cohorts but not for the rural ones (analogous, in a way, to the city size findings discussed above).

One project in our study – by Cárdenas, Di Maro, and Mejía (2009) – explores the different types of insecurity that can affect perceived well-being: nutritional, personal, and job insecurity. One major finding is that nutritional insecurity seems to be playing the main role in explaining perceived well-being. Job insecurity has a significant and negative, but smaller, effect on perceived well-being. Personal insecurity seems to have an effect only on some measures of life satisfaction. There is also evidence of adaptation to crime as crime increases. Their benchmark results show that for the same increase in life satisfaction a 1-percentage point decrease in the incidence of nutritional insecurity is equivalent to 3.9-percentage-point decrease in job insecurity and 4.8-percentage-point decrease in the measure of personal insecurity. They also find that responses of life

satisfaction to insecurity are not dramatically different along income distribution and schooling levels, although there are some modest ones. Individuals near the top of the income distribution manage to partly offset the negative consequences of nutritional insecurity in terms of life satisfaction and being illiterate seems to lead to a more negative response of life satisfaction to nutritional insecurity.

The same authors also explored the way in which perceptions on the quality of education affect well-being and explore if educational quality perceptions are determined by objective educational outputs, such as international standardized tests scores (i.e. PISA scores) and individual educational attainment. Their results indicate that educational quality perceptions are positively correlated with standardized test scores but negatively correlated with individual educational attainment. [See Tables 3 and 4] They also find that favorable perceptions on the quality of education are positively associated with higher individual well-being, even after controlling for individual educational attainment and other traditional determinants of well-being.

As part of the same effort, Eduardo Lora and I analyzed health perceptions. Most remarkable is the absence of a clear association between reported health satisfaction and objective health measures such as infant mortality or life expectancy. In part this reflects the paradox noted above: some of those who are relatively poor in this domain, such as respondents from Guatemala, report being relatively satisfied in comparison with those who by objective measures have much better health, such as respondents from Chile. Figure 10 illustrates the differences in health satisfaction across countries in Latin

America. It also compares health satisfaction to two more objective measures of health: the Euro-quality five dimension index – in which respondents assess whether or not they have health problems along five dimensions: mobility, self care, the usual acts, pain, and anxiety – an self-report based index which correlates quite robustly with other objective health indicators; and health state, in which respondents evaluate their state of health on a ten point ladder scale. The lack of a clear correlation across countries between the more objective indicators of health and satisfaction with health is clear from the figure. We also find strong differences by socioeconomic strata, but which are not as strong as the gaps between objective indicators.

We also looked at job satisfaction. Research by Menezes-Filho, Corbi and Curi (2009) explored the determinants of job insecurity and social security participation. They find that, on average, 20% of Latin American workers feel insecure about their jobs, with the numbers varying from about 10% in Paraguay to 27% in Mexico. About 40% of Latin American workers contribute to a retirement plan, with the lowest rates occurring in Bolivia, Honduras and Paraguay (20%) and the highest reaching 70% in Chile and Uruguay. Moreover, having a regular job has a positive and significant association with life satisfaction, even conditional on health, wealth and other subjective measures that may capture respondents' frame of mind at the time of the interviews. Job satisfaction is also strongly related to life satisfaction and job insecurity is strongly inversely related with life satisfaction. Rather surprisingly given the received wisdom about the precarious nature of informal sector employment, they find that formal labor market status

(measured by the contribution to a retirement plan) has no association with life satisfaction.

There is some evidence, however, that formal sector workers feel more strongly the negative effects of job insecurity on their lives. This could be explained by the low aspirations paradox: informal sector workers have already come to expect insecurity and are therefore less bothered by it, and/or by a selection bias: more risk averse workers select into more secure formal sector jobs, trading off flexibility and independence for security and remain anxious about it. A bad quality, low ranking formal sector job with long and rigid working hours could easily be worse than a relatively decent informal sector job. Individuals working in countries with more regulated social security systems seem to feel more confident about their jobs, while the opposite occurs in countries where firing costs are high relative to normal wages. In general, there is a similar optimism bias in the assessments of the poor in the domain satisfactions (and among informal workers, who tend to be poorer than the average) as there is in the income domain.

In sum, our research on quality of life yields a number of insights that are relevant to the concept of empowerment and the challenges associated with incorporating it into the HDI. Foremost among these is the extent to which people with low expectations, limited information, and norms of poor service quality report more satisfaction with their services, jobs, and health, among other things, than respondents with higher standards and aspirations and better services. This phenomenon – which we have more generally called the "happy peasant and frustrated achiever" paradox – is relevant to *both* the

definition and measurement of empowerment. Less "empowered" respondents are also likely to demand less from their governments, their public institutions, and their lives.

My other research (Graham, 2009) on happiness across the world suggests (but does not prove) that this phenomenon is a regularity that is more general across populations. A more rigorous assessment is relevant to understanding different conceptions of empowerment – and that information from surveys could be a useful part of that effort. It is also a challenge for incorporating the concept of empowerment into the HDI, as responses to questions could vary a great deal because of norms and expectations rather than because of objective conditions. Understanding how that could contribute to, as well as complicate and bias, the measurement of welfare and human development is a more complex challenge. Happiness surveys are surely suited to making headway on the first challenge, and may also inform progress on the second one.

Lessons and Challenges for Policy

Variance in norms and adaptation to those norms pose a major problem – both for applying happiness surveys to policy and for using the surveys to measure empowerment. This challenge is highlighted by the paradoxes discussed in both the empowerment and the quality of life sections of the paper.

Happiness research world-wide shows that there is a remarkable human capacity to adapt to both prosperity and adversity. Thus people in Afghanistan are as happy as Latin Americans – above the world average – and Kenyans are as satisfied with their

health care as Americans. Crime makes people unhappy, but it matters less to happiness when there is more of it; the same goes for both corruption and obesity. Freedom and democracy make people happy, but they matter less when these goods are less common. The bottom line is that people can adapt to tremendous adversity and retain their natural cheerfulness, while they can also have virtually everything – including good health – and be miserable.

It is surely a good thing that most Americans have been able to adapt to the economic costs of the crisis and return to their natural happiness levels. And even better that the average person in Afghanistan can maintain cheerfulness and hope despite the situation they live in. While this capacity to adapt may be a good thing from the perspective of individual psychological welfare, it may also result in collective tolerance for conditions that would be unacceptable by most people's standards. This may help explain why different societies tolerate such different norms of health, crime, and governance, both within and across countries.

The adaptation conundrum is particularly relevant for a region like Latin America, where norms of wealth, health, governance, and public safety, among others, vary from advanced industrial economy standards, in countries such as Chile, to those of some of the poorest countries in the world, in countries like Guatemala and Honduras. Without understanding these norm differences, it is very difficult to craft policies to improve health, living conditions, and governance structures.

This capacity to adapt – and the mediating role of norms and expectations – poses all sorts of measurement and comparison challenges – particularly in the study of the relationship between happiness and income. Can we really compare the happiness levels of a poor peasant in India, who reports to be very happy due to low expectations and/or due to a naturally cheery character, with those of a successful and very wealthy CEO, who reports to be miserable – due to his/her relative rankings compared to other CEO's, or to a naturally curmudgeonly character?

This is something that I have called the happy peasant and frustrated achiever problem. On one level it suggests that it (happiness) is all relative. At another it suggests that some unhappiness may be necessary to achieve economic and other sorts of progress. The examples of migrants who leave their home countries – and families – to provide better futures for their children, or revolutionaries who sacrifice their lives for the broader public good, come to mind, among others. This also begs more difficult questions, such as whether we should tell the poor peasant in Guatemala how miserable he/she is according to objective income measures in order to encourage that peasant to seek a "better" life; or whether we worry more about addressing the millionaire's misery or increasing the peasant's happiness.

This happy peasant and frustrated achiever (or miserable millionaire) paradox also raises the question of the appropriate definition of happiness. What makes happiness surveys such a useful research tool is their open ended nature. The definition of happiness is left up to the respondent, and we do not impose a U.S. conception of happiness on

Chinese respondents, or a Chinese definition on Chilean ones. The open ended nature of the definition results in the consistent patterns in the basic explanatory variables across respondents world-wide, in turn allowing us to control for those variables and explore variance in the effects of all sorts of other things on happiness, ranging from crime rates to commuting time to the nature of governing regimes.

At the same time, as we think about happiness as a measure of welfare with relevance to policy – something that is increasingly in the public debate, then the definition does matter. Are we thinking of happiness as contentment in the Benthamite sense, or as a fulfilling life in the Aristotelian sense? There is still much room for debate. My studies of happiness around the world suggest that respondents' conceptions of happiness vary according to their norms, expectations, and ability to adapt, among other things. Our priors as economists and policymakers likely suggest that some conceptions of happiness – such as the opportunity to lead a fulfilling life – are worth pursuing as policy objectives, while others – such as contentment alone – are not. Yet that choice entails normative judgments and a debate which we have not had. And some policy objectives that can advance human welfare over the long-term, such as overthrowing the French monarchy or reducing the national budget deficit, do not necessarily bring happiness to mind.

This conundrum will give economists fodder for debate – about happiness and income, and beyond – for several years to come. And, despite the difficulty it poses for both method and economic philosophy, it will also force us to think deeply about what

measures of human well-being are the most accurate benchmarks of economic progress and human development.

While an interesting conceptual question, this adds to the challenge of incorporating empowerment into the HDI, particularly in a context such as Latin America where there is a wide variance in norms of wealth, health, and governance. Empowerment is surely related to the ability to lead a fulfilling life. Yet precisely because conceptions of what a fulfilling life is may vary depending on how empowered people are – which is not unrelated to their expectations – the least empowered respondents may report to be satisfied with whatever system they live in. Increasing empowerment – like aspirations – may make people much less happy in the short term, while enhancing their welfare and capabilities in the long term.

A related conceptual challenge is that trust in the system (both in economic system's ability to provide fair opportunities and in public institutions more generally) may be inversely related to people's ability to benefit from those systems and/or to their direct experience with the system. This is surely the case in Latin America. The least empowered people are the most trusting of public institutions (with which they have very little direct contact), for example, and at the same time have remarkable faith in the capacity of individual effort. Wealthier and more educated respondents, while accurately assessing the positive role that their higher levels of education have played in their advancement, are much more skeptical of the system's ability to provide fair opportunity and of public institutions in general. This suggests that public frustration may initially

increase when positive changes are made to enhance the empowerment of the poorest and least empowered citizens. While this could result in positive pressure for institutional reform in the long term, it could pose challenges to social cohesion and political stability in the shorter term.

While well-being surveys cannot resolve these challenges, they can surely enhance our understanding of them, which is a first step towards their resolution. The process may also contribute to our ability to accurately define empowerment. From an empirical perspective, incorporating measures that gauge progress in that process into the HDI will surely provide a much broader picture of human well-being. Yet it may also make cross country comparisons based on that indicator more difficult, precisely because of the perceptions paradoxes and conceptual challenges spelled out throughout this paper. Comparing happy (un-empowered) peasants with frustrated (empowered) achievers or millionaires may tell us a lot, but ranking those responses in a composite cross-country score is a far more difficult task.

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