

**Why Societies Stay Stuck in Bad Equilibrium:
Insights from Happiness Studies amidst Prosperity and Adversity**

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Some individuals who are destitute report to be happy, while others who are very wealthy report to be miserable. There are many possible explanations for this paradox; this paper focuses on the role of adaptation. Adaptation is the subject of much work in economics, but its definition is a psychological one. Adaptations are defense mechanisms; there are bad ones like paranoia, and healthy ones like humor, anticipation, and sublimation. Set point theory – which is the subject of much debate in psychology – posits that people can adapt to anything – such as bad health, divorce, and extreme poverty – and return to a natural level of cheerfulness. My research from around the world, meanwhile, suggests that people are remarkably adaptable. Respondents in Afghanistan, for example, are as happy as Latin Americans and 20% more likely to smile in a day than Cubans. I posit that while this may be a good thing from an individual psychological perspective, it may also facilitate collective tolerance for bad equilibrium. I provide examples from the economics, democracy, crime, corruption and health arenas.

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Why Societies Stay Stuck in Bad Equilibrium: Insights from Happiness Studies amidst Prosperity and Adversity

“When I sell liquor, it’s called bootlegging; when my patrons serve it on Lake Shore Drive, it’s called hospitality.” Al Capone

In the past few years there has been a burgeoning literature on the economics of happiness. While the understanding and pursuit of happiness has been a topic for philosophers – and psychologists - for decades, it is a novel one for economists. 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 (revealed preferences). Most economists shied away from survey data (expressed preferences), under the assumption that there is no consequence to what people say in surveys, as opposed to the concrete trade-offs that are posed by consumption choices.

This focus on revealed preferences has been a powerful tool for answering many economics questions, and has allowed for a more parsimonious and quantitative approach to economics. Yet it does not do a good job of explaining a number of questions. These include the welfare effects of institutional arrangements that individuals are powerless to change; choices that are made according to perceptions of fairness or other principles; situations where individuals are constrained in their capacity to make choices; and seemingly non-rational behaviors that are explained by norms, addiction, and self control. Happiness surveys provide us with a novel metric. Traditional approaches also do not do a good job of explaining why some individuals with very little capacity to consume are very happy, while others with an infinite capacity to consume are miserable.

This paper focuses on the latter question. It builds on research that I have done on happiness across the world, in very poor and in very rich countries, and in several regions of the world.² My research suggests a role for adaptation in explaining why some societies stay stuck in bad equilibrium, with high levels of poverty, corruption, and other negative phenomena, and yet most citizens record relatively high levels of happiness, while in others, which are materially better off by significant orders of magnitude, many citizens report to be miserable.

While adaptation is a topic of many economic studies, its roots are in a psychological definition. Adaptations as defined by Anna Freud are unconscious thoughts and behaviors that either shape or distort a person’s reality. A simpler definition is that they are defense mechanisms. There are unhealthy adaptations like paranoia and

² See Carol Graham, *Happiness around the World: The Paradox of Happy Peasants and Miserable Millionaires* (Oxford: Oxford University Press, forthcoming).

megalomania, which make reality tolerable for the people enjoying them, and there are neurotic defenses employed by “normal” people, such as dissociation and memory lapse. “Healthy” or mature adaptations include altruism, humor, anticipation, and sublimation.³

People can adapt to almost anything: bad health, divorce, poverty, unemployment, and high levels of crime and corruption. Indeed, some psychologists believe that individuals can adapt back from almost any negative event to their natural set point of cheerfulness. Adaptation is seemingly a very good thing – a human defense mechanism.

My studies of happiness around the world suggest that the human race is tremendously adaptable. People in Afghanistan, for example, are as happy as Latin Americans and are 20% more likely to smile in a day than are Cubans. The poor in Africa are more hopeful than the rich, and the poor in poor countries in Latin America assess their health better than the poor in rich countries in Latin America. Kenyans are more satisfied with their health systems than are Americans, and victims of crime in crime-ridden cities across the world are less happy about being crime victims than are crime victims in much safer places. What do we make of this?

In this paper, I argue that the ability to adapt is indeed a good thing from an individual happiness and psychological perspective. But this same human defense mechanism may result in societies staying stuck in bad equilibrium – such as high levels of corruption, bad governance, or bad health – for prolonged periods of time, while much more prosperous ones continue to go from good to better equilibrium. I provide examples from countries and regions around the world, and from a number of domains, ranging from macroeconomic growth to democracy, to crime and corruption, to health.

Happiness Economics and the Easterlin Paradox

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.⁴

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. Answers to happiness and life satisfaction questions correlate quite closely.⁵ Still, the particular kind of

³ See Joshua Wolf Shenk, “What Makes Us Happier?” *The Atlantic*, June 2009.

⁴ For a summary of the many scholars and range of topics involved, see the chapter on happiness economics by Graham in Steven Durlauf and Larry Blume, eds., *The New Palgrave Dictionary of Economics*, 2nd Edition, Palgrave MacMillan, 2008.

⁵ 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, D. and Oswald, A. 2004. Well-being over time in Britain and the USA. *Journal of Public Economics* 88, 1359–87; Graham, C. and Pettinato, S. 2002a.

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".

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. 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.

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.⁶

The data in happiness surveys are analyzed via standard econometric techniques, with an error term that captures the unobserved characteristics and error described above.⁷ 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, reflecting 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 employment status.

Happiness and Hardship: Opportunity and Insecurity in New Market Economies. Washington, DC: The Brookings Institution Press.

⁶ Diener and Seligman, 2004. "Beyond money: toward an economy of well-being." *Psychological Science in the Public Interest* 5 (1), 1–31.

⁷ 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.

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.⁸ 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).⁹

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. [Figure 1]

More recently, there has been renewed debate over whether there is an Easterlin paradox or not.¹⁰ 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.¹¹

⁸ 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. For an extensive and excellent discussion of the methodology underpinning happiness studies – and how it is evolving – see Van Praag, B. and Ferrer-i-Carbonell, A. 2004. *Happiness Quantified: A Satisfaction Calculus Approach*. Oxford: Oxford University Press.

⁹ Blanchflower and Oswald, 2004.

¹⁰ A number of scholars, such as Angus Deaton, and Betsey Stevenson and Justin Wolfers, 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. This is with a log-linear specification. Deaton, A. 2008. Income, Health, and Well-Being Around the World: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, Vol. 22, No.2, Spring. Stevenson, B. and Wolfers, J. 2008. “Economic Growth and Subjective Well-Being: Re-assessing the Easterlin Paradox”, *Brookings Panel on Economic Activity*, April.

¹¹ For detail on this debate, see Carol Graham, Soumya Chattopadhyay, and Mario Picon, “The Easterlin Paradox Re-visited: Why Both Sides of the Debate May be Correct”, in Ed Diener, John Helliwell, and Daniel Kahneman, eds., *International Differences in Well-being* (Oxford: Oxford University Press, forthcoming).

There is much less debate about the relationship between income and happiness within countries. Income matters to happiness.¹² 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.¹³ 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.¹⁴ The implication of this theory for policy is that nothing much can be done to increase happiness.

There is no consensus about which interpretation is most accurate. Even if levels eventually adapt upwards to a longer-term equilibrium, mitigating or preventing the unhappiness and disruption that individuals experience in the interim certainly seems a worthwhile objective. Set point theory, meanwhile, does not tell us much about the welfare implications of adaptation. This paper addresses the latter question, based on my studies of happiness around the world, and examines how and under what conditions individuals adapt to both good and bad phenomena, such as wealth, freedom, crime and corruption, and ill health, among other things. The look across substantive domains suggests a remarkable human capacity to cope with adversity. The look across countries suggests that this same capacity may lead to bad aggregate outcomes which are hard for societies to get out of.

Unhappy Growth, Frustrated Achievers, Crises, and More

We know that within societies wealthier people are, on average, happier than those that are destitute, but after that the income-happiness relationship becomes more complicated. At the macroeconomic level, the relationship between happiness and income may be affected as much by the pace and nature of income change as it is by absolute levels. Both the behavioral economics and happiness literature highlight the extent to which individuals adapt very quickly to income gains and disproportionately value income losses. Rapid economic growth, particularly in developing economies, usually comes with differential rewards structures and increases in inequality on the one hand, and volatility and increased risk on the other.

¹² Oswald, A. 1997. Happiness and economic performance. *Economic Journal* 107, 1815–31. Diener, E. et al. .2003. The relationship between income and subjective well-being: relative or absolute? *Social Indicators Research* 28, 195–223.

¹³ The behavioral economics literature, meanwhile, shows that individuals value losses more than gains. Easterlin argues that individuals adapt more in the income or financial arenas than in non-income related arenas, while life changing events, such as bereavement, have lasting effects on happiness. Kahneman, D., Diener, E. and Schwarz, N. 1999. *Well-being: The Foundations of Hedonic Psychology*. New York: Russell Sage.

¹⁴ Easterlin, R. 2003. Explaining happiness. *Proceedings of the National Academy of Sciences* 100 (19), 11176–83.

Based on the Gallup World Poll in 122 countries around the world, Eduardo Lora and collaborators find that countries with higher levels of per capita GDP have, on average, higher levels of happiness. Yet controlling for levels, they find that individuals in countries with positive growth rates have lower happiness levels. When they split the sample into above and below median growth rates, the unhappy growth effect only holds for those that are growing at rates above the median. [Table 1] In related joint work, Lora and I chose to call this negative correlation between economic growth and happiness the “paradox of unhappy growth”.¹⁵

Deaton, and Stevenson and Wolfers, also find evidence of an unhappy growth effect based on the Gallup World Poll. Stevenson and Wolfers find insignificant effects of growth in general, but strong negative effects for the first stages of growth in “miracle” growth economies, such as Ireland and South Korea during their take-off stages. The negative effect becomes insignificant in later stages.¹⁶ Deaton finds that the inclusion of region dummies make a major difference to the results, with the significance being taken up by Africa and Russia, regions which are both fast growing and very unhappy.

Soumya Chattopadhyay and I, using Latinobarometro data, also find hints of an unhappy growth effect, or at least an irrelevant growth effect. In contrast to the above studies, we use individual rather than average country happiness on the left hand side, with the usual socio-demographic and economic controls and clustering the standard errors at the country level. 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), we find that the effects of growth rates – and lagged growth rates – are, for the most part, negative but insignificant.¹⁷ [Table 2]

There are a number of explanations for these findings, including the insecurity that is attached to rapidly changing rewards structures and macroeconomic volatility, and the frustration that rapidly increasing inequality tends to generate. They surely highlight how individuals are better able to adapt to the gains that accompany rapid growth than to the potential losses and uncertainty that are also associated with it. They also suggest that individuals are often more content in low growth equilibrium than in a process of change which results in gains but instability and unequal rewards at the same time.

Happy Peasants and Frustrated Achievers

¹⁵ See the chapter by Eduardo Lora and Juan Camilo Chaparro in Carol Graham and Eduardo Lora, eds. (forthcoming) *Paradox and Perception: Measuring Quality of Life in Latin America* (Washington, D.C.: The Brookings Institution Press. See also Deaton (2008), and Stevenson and Wolfers (2008). It is also possible that initially happier countries grew faster than initially unhappy countries with the same income (because they had happier, more productive workers?) and thus the coefficient on growth in a regression which compares the two with final income and final happiness is negative. I thank Charles Kenny for raising this point.

¹⁶ Deaton (2008); Stevenson and Wolfers (2008).

¹⁷ Graham, C. and Chattopadhyay, S. 2008b. “Public Opinion Trends in Latin America (and the U.S.): How Strong is Support for Markets, Democracy, and Regional Integration?”, Paper prepared for the Brookings Partnership for the Americas Commission, Washington, D.C., June.

The within country income and happiness story is also more complicated than the averages suggest. It is typically not the poorest people that are most frustrated or unhappy with their conditions or the services that they have access to. Stefano Pettinato and I, based on research in Peru and Russia, identified a phenomenon that is now termed the “happy peasant and frustrated achiever” problem.¹⁸ This is an apparent paradox, where very poor and destitute respondents report high or relatively high levels of well-being, while much wealthier ones with more mobility and opportunities report much lower levels of well-being and greater frustration with their economic and other situations. This may be because the poor respondents have a higher natural level of cheerfulness or because they have adapted their expectations downwards. The wealthier and more upwardly mobile respondents, meanwhile, have constantly rising expectations (or are naturally more curmudgeon-like).¹⁹ And a third explanation is also possible: that more driven and frustrated people are more likely to seek to escape situations of static poverty (via channels such as migration), but even when they achieve a better situation, they remain more driven and frustrated than the average. Some combination of all three explanations could indeed be at play.

The poor, some of whom rely on subsistence agriculture rather than earnings, have little to lose and have likely adapted to constant insecurity. Recent research on job insecurity, shows that reported insecurity is actually higher among formal sector workers with more stable jobs than it is among informal sector workers. The latter have either adapted to higher levels of income and employment insecurity (and/or have selected into jobs with less stability but more freedom).²⁰

Other studies find an analogous urban effect in China, where urban migrants are materially better off than they were in their pre-migration stage, yet report higher levels of frustration with their material situation. Their reference norm quickly shifted to other urban residents rather than their previous peers in rural areas.²¹

Individuals seem to adapt much more to income gains than to status gains. Based on the German socioeconomic panel, Rafael DiTella shows that most individuals adapt to a significant income gain or salary increase within a year, while status gains (such as a promotion) have a positive effect that lasts up to five years.²² In the context of the frustrated achievers in very volatile emerging markets contexts, where currencies are

¹⁸ For more detail, see Graham and Pettinato (2002).

¹⁹ Javier Herrera, for example, using panel data for Peru and Madagascar, finds that people’s expectations adapt upwards during periods of high growth and downwards during recessions, and that this adaptation is reflected in their assessments of their life satisfaction. People are less likely to be satisfied with the status quo when expectations are adapting upwards. Recent work on China by Whyte and Hun (mimeo, Harvard University, 2006) confirms the direction of these findings.

²⁰ *Paradox and Perception*.

²¹ Knight and Gunatilaka (2007) Knight, J. and Gunatilaka, R. 2007. “*Great Expectations? The Subjective Well-being of Rural-Urban Migrants in China*”, Discussion Paper Series No. 322, Department of Economics, University of Oxford, April. Whyte, M., and Hun, C. 2006. “*Subjective Well-being and Mobility Attitudes in China*”, Mimeo, Harvard University.

²² Tella, R. and MacCulloch, R. Happiness and Adaptation to Income and Status: Evidence from an Individual Panel. Mimeo, Harvard University, 2006.

often shifting in value and where the rewards to particular skill and education sets are in flux, as are social welfare systems, income gains may seem particularly ephemeral.²³

Individuals value losses disproportionately to gains. Crises bring about both significant losses and uncertainty. Not surprisingly, they bring movements in happiness of an unusual magnitude. While national average happiness levels do not move much, they surely do at times of crisis, although they eventually adapt back. Research on other countries suggests that the unhappiness effects of crises are as much due to the *uncertainty* they generate as they are to the actual drops in income levels that they cause (as people have a much harder time adapting to uncertainty than to one time shocks). In recent work estimating the effects of the 2009 on the crisis in the United States – based on recent experiences and happiness drops in recent crises in Russia and Argentina, Soumya Chattopadhyay and I estimate the well-being effects to be very large: comparable to a 75% decline in income, or \$45,000 for a person earning \$60,000.²⁴

We posit that because individuals in the U.S. are less accustomed to uncertainty than are those in Argentina and Russia, the negative welfare effects from uncertainty in the U.S. could be as great as those from the larger drops in wealth levels in Argentina and Russia. At the same time, because U.S. citizens have not adapted to macroeconomic volatility and uncertainty, the policy response to the crisis was much more aggressive than in other countries and, arguably, prevented the U.S. economy from staying in a bad equilibrium for a prolonged period of time.

Adapting to Good and Bad Fortune: How Friends, Freedom, Crime, and Corruption affect Happiness

We have seen that rapid economic growth can cause unhappiness, and that people adapt very quickly to the gains that growth brings about. What about other factors that affect well-being, such as religion, friendships and social networks, personal liberty, participating in politics, and the effects of criminal violence? What kinds of effects do these things have on happiness?

One can imagine average happiness levels being pulled down in a relatively wealthy country which has high levels of crime. Or, in contrast, happiness being higher

²³ A related body of research examines the effects of inequality and relative income differences on well-being, and how inequality mediates the happiness-income relationship. At some level, individuals probably adapt to inequality as they do to other things (and are less good at adapting to changes in inequality). I do not cover the topic here; it merits an entire paper on its own. For more detail, see Graham, C. and Felton, A. 2006a. Does Inequality Matter to Individual Welfare: An Exploration Based on Happiness Surveys in Latin America, *Journal of Economic Inequality*, 4, 107-122; and Luttmer, E. 2005. Neighbors as Negatives: Relative Earnings and Well-being. *Quarterly Journal of Economics*, Vol. 120, No. 3, August.

²⁴ For more detail on the welfare effects of the U.S. crisis and on the method, see Graham and Chattopadhyay (2008a) Graham, C. and Chattopadhyay, S. 2008a. Gross National Happiness and the Economy. *The Globalist*. October 24. For work on earlier crises, see Graham, C. and Sukhtankar, S. 2004. Does economic crisis reduce support for markets and democracy in Latin America? Some evidence from surveys of public opinion and well-being. *Journal of Latin American Studies* 36, 349–77; Eggers, A., Gaddy, C. and Graham, C. 2006. Well-being and unemployment in Russia in the 1990's: can society's suffering be individuals' solace? *Journal of Socioeconomics*, January.

than predicted by per capita income levels in a poor country with very strong social capital. And it is not clear that crime rates or social capital have the same effects on well-being in every context. An important part of the story is the extent to which people adapt to both good and bad equilibrium, and how that mediates the effects of contextual factors on well-being.

We focus here on public institutions, public goods, and related issues of social capital and social networks. Expectations rise along with good equilibrium – like high levels of freedom - and then the positive externalities of good equilibrium increase in their importance for happiness as individuals come to expect them. Expectations also decline as individuals adapt to bad equilibrium – like high levels of crime - and then, in turn, the negative externalities from bad equilibrium become less important to happiness. Downward adaptation is likely an important survival mechanism at times of adversity. Rising expectations – and resulting demands for higher standards – may have provided impetus to the remarkable progress that humanity has made over time in the areas such as technology and health, meanwhile.

Social Capital and Friendships

There is a wide literature – pioneered by Robert Putnam – on the importance of social capital to a host of outcomes ranging from economic development to democratic government to health. Suffice is to note that there is a wide body of empirical evidence linking higher levels of social capital to outcomes that are, on balance, positive for quality of life and economic progress, such as economic growth, better governance, and higher levels of productivity.²⁵ Not surprisingly, there are also positive links between well-being and friendships, narrowly defined, and social capital, more broadly defined. What is harder to disentangle, though, is whether happier people make more friends and/or interact with others more, or whether friendships and social interactions make people happier.

Eduardo Lora and I and a team of colleagues at the Inter-American Development Bank evaluated the importance of friendships. The Gallup World poll has a variable which asks the respondent whether or not he/she has friends or relatives she can count on.²⁶ Friendships and relatives matter more to the well-being of the average Latin American respondent than health, employment or personal assets, and only slightly less than food security (of course it could be that happier people are more likely to have and value friendships). This varies according to income levels, with the rich valuing work and health more, and the poor valuing friendships. [Figure 2]

These friendships most likely provide important coping mechanisms for the poor in the absence of publicly provided safety nets. Whether they serve as strong or weak ties

²⁵ For a comprehensive review, including of Putnam's work, see Grootaert, C. and van Bastelaer, T., eds. 2002. *The Role of Social Capital in Development: An Empirical Assessment*. Cambridge (UK): Cambridge University Press.

²⁶ The question in the Gallup Poll is phrased thus: "if you were in trouble, do you have friends or relatives you can count on, or not?"

in the Granovetter sense is an open question. Granovetter's work on U.S. workers showed that their "weak" ties, or their connections beyond the "strong ties" of family and friendships, were more important to upward mobility.²⁷ Reporting religion to be important and having access to a telephone, meanwhile, are also positively correlated with happiness in the region. Both variables likely facilitate social connections and networks, among other things.²⁸

John Helliwell has done extensive research into whether living in contexts with greater social capital and with greater freedom play a role in individual well-being. The basic answer is a resounding yes on both fronts. In his most recent paper, based on the Gallup World Poll, Helliwell and colleagues compare the various determinants of well-being across 120 countries in the five regions covered by the Poll.²⁹ They find that all measures of social connections are significantly correlated with life satisfaction, across the countries and regions in the sample. Respondents seem to value both the support that they get from others and the support that they give to others.

Other studies – including our own - find that having trust in others in general is linked to higher levels of well-being. Of course, the usual problem of not being able to disentangle whether happier people are more likely to have trust, or whether trusting others per se generates happiness, applies. In addition, this relationship between trust and higher levels of well-being is likely stronger in contexts where trusting public institutions is the norm rather than an aberration.

An example of the latter is Afghanistan, where we have most recently studied happiness. Low levels of trust in public institutions and inter-personal trust there co-exist with relatively high levels of reported happiness as well as measures of affect, such as frequency of smiling yesterday there (with average happiness and affect levels above the world average and equivalent to the Latin American regional average). Most people were more likely to trust those in their neighborhood than to trust others more generally. After years of warfare and turmoil, low levels of general trust are not a surprise. At the same

²⁷ Granovetter, M. 1973. "The Strength of Weak Ties," *American Journal of Sociology*, Vol.78 (May), pp. 1360-79.

²⁸ Andrew Clark and Orsolya Lelkes explore the issue of religion in greater detail, and attempt to tease out the differences between belonging to a religion and having faith on the one hand, and the positive externalities that come from the related social networks on the other. They look across 90,000 individuals across 26 European countries and find that, not surprisingly, reporting to belong to a religion is positively correlated with life satisfaction. More surprising, though, they find that average religiosity in the region also has a positive impact: people are more satisfied in more religious regions, regardless of whether they themselves are religious or non-believers ("atheists"). The equally surprising flipside is that having a higher proportion of atheists has a negative spillover effect for the religious and for atheists alike. Their findings on religion, meanwhile, are not explained by general levels of social capital, crime, or trust. It is important to note, though, that their study took place in contexts of moderate rather than extreme religiosity, and that they might be quite different in contexts of extremes, where there was more competition or even animosity among the religions. See Clark, A. and Lelkes, O. 2009. "*Let Us Pray: Religious Interactions in Life Satisfaction*". Mimeo, Paris School of Economics, January.

²⁹ They drop roughly 8 countries which do not have specifications for income. See Helliwell, J., Haifang Huang, H., and Harris, A. 2008. "*International Differences in the Determinants of Life Satisfaction*", Mimeo, University of British Columbia.

time, the majority of respondents seem to be able to maintain their general or natural cheerfulness despite that adversity and lack of generalized trust.³⁰

Political Freedom, Political Participation, and Happiness

There is substantial work on the effects of political participation – and the nature of government regimes – on happiness. The channels through which these factors operate, however, are not completely clear. One can imagine that the nature of political regimes matter to people’s well-being, and that living with freedom and good government is better than not. In his world-wide Gallup Poll study, Helliwell finds that citizens that live in a context of freedom are significantly happier than those that do not. And, as is suggested above, freedom seems to matter more to the happiness of those that have come to expect it than to those that do not. Veenhoven also finds that living in a context of freedom is linked to higher levels of well-being. One issue is that it is difficult to disentangle freedom from other contextual factors, such as the nature of public goods, and other unobservable factors.³¹

One study, by Bruno Frey and Alois Stutzer, at least partially gets around this problem. They find that, in addition to living with more freedom or in a democratic context, individuals seem to benefit from *participating* in democracy. Procedural utility is that which comes from participating that is distinct from the utility that is the outcome or result of participating. They have a unique data set – based on variance in voting structures across Swiss cantons – in which they test whether voters gain procedural utility from participating in direct democracy. Only nationals are allowed to vote in referendum in Switzerland, but both foreigners and nationals benefit from the outcomes of those votes, and the welfare effects of the latter can also be tested across cantons.

Frey and Stutzer find that there is an additional positive effect on happiness that comes from participating in direct democracy, an effect that is above and beyond that of individual traits, being a national or a foreigner, and the variance in the level of public goods across cantons. Citizens – both nationals and foreigners – that live in jurisdictions with more developed political participation rights have higher happiness levels. However, the positive effect is greater for nationals, reflecting the additional effect that comes from participating in the elections as well as benefiting from them.³²

Our own work on the developing and transition economies corroborates the above findings, although it does not solve the direction of causality problem. Stefano Pettinato and I, using Latinobarometro data, found that individual respondents’ attitudes about the

³⁰ Rather interestingly, the same respondents scored well below the world average on a best possible life question, suggesting that they are well aware of how their lives compare in relative terms to those elsewhere. For detail see Graham, C. and Chattopadhyay, S. 2009. “Well Being and Public Attitudes in Afghanistan: Some Insights from the Economics of Happiness”, *Foreign Policy Working Paper Series*, No 2, The Brookings Institution, Washington, D.C.

³¹ Hudson (2006); Veenhoven (2000) Hudson, John. 2006. Institutional Trust and Subjective well-Being Across the EU. *Kyklos* 59: 43-62. Veenhoven, R. 2000. Freedom and Happiness: A Comparative Study of 46 Nations in the Early 1990’s. In *Culture and Subjective Well-being*, ed. E. Diener and E. Suh. MIT Press.

³² Frey, B. and Stutzer, A. 2002a. *Happiness and Economics*. Princeton, NJ: Princeton University Press.

market and about democracy were positively correlated with happiness.³¹ In other words, controlling for other variables such as income and age and using country dummies, individuals with pro-market attitudes were, on average, happier than those who did not favor market policies. Not surprisingly, wealth levels and education levels had positive and significant effects on pro-market attitudes. [Table 3] When we look at the inverse relationship, we also find that happier people are more likely to be pro-market, so we have the usual problem of establishing the direction of causality. It may well be that happier individuals are more likely to cast whatever policy environment they inhabit in a favorable light, and /or adapt to a range of policy environments.

These findings are in keeping with those of Ronald Inglehart, who uses data on life satisfaction and political satisfaction from the Eurobarometro survey for nine European nations from 1973 to 1986. Inglehart finds that at the aggregate country level both political satisfaction and life satisfaction are correlated with stable democracy. The effects of life satisfaction are stronger, however, because life satisfaction trends within developed countries are fairly stable over time and seem to be correlated with other traits such as interpersonal trust. In contrast, political satisfaction fluctuates more, because it behaves like an indicator of public attitudes about government popularity, changing from one month to the next in response to current economic and political events. Political satisfaction levels are only weakly linked with the number of years that democratic institutions have been in place in a given nation (Inglehart's measure of stable democracy), while the link between life satisfaction and stable democracy is higher.³³

Pettinato and I also looked at Russia. As in Latin America, having a pro-market attitude has positive and significant effects on happiness in Russia, suggesting that people in both regions who favor the ongoing turn to the market are in general more satisfied. Not surprisingly, having a pro-market attitude had significant and negative effects on the likelihood of respondents supporting redistribution, as did having positive prospects for the future.³⁴ Information about democratic attitudes in Russia was not comparable to that in the Latinobarometro. One question in the RLMS asks respondents whether they want to return to pre-Gorbachev (pre-*perestroika*) times. Although a very crude indicator at best, this question was included in some of our regressions as a proxy indicator of respondents' preference for democracy over communism. We found that not wanting to return to communism, like having a pro-market attitude, had positive and significant effects on happiness. Again, the direction of causality is not clear, and it may well be that happy people are supportive of – and/or more likely to adapt to – whatever policy environment they live in.

Adapting to Freedom and Friendships?

Helliwell and colleagues test for inter-regional differences on the effects of income, freedom, social connections – as measured by the importance of friendships and

³³ The r-squared for correlation between duration of democratic institutions and satisfaction is .21, while for the links between life satisfaction and democracy is .85. Inglehart, R. 1988. The Renaissance of Political Culture. *American Political Science Review* 82 (December): 1203–30.

³⁴ Regression results are reported in Graham and Pettinato (2002a).

memberships in associations, among others - and corruption on well-being. They find that the income coefficient is weakest in Africa – most likely due to the likelihood of mis-measurement of the income variable and the importance of subsistence agriculture. The effects of social connections are lower in Asia and Africa and higher in Region 1 (the United States, Western Europe, Australia, and New Zealand) than in any other region. The negative effects of corruption are weakest in Asia and Africa and strongest in Region 1, as are the positive effects of personal freedom.

The well-being effects of corruption seem to be lower for those living in countries where corruption is a long established feature of the status quo – and therefore people have become accustomed to it, while the well-being value attached to a sense of personal freedom is higher in societies classified as individualistic rather than collectivist. A recent paper by Ronald Inglehart and colleagues also finds that the well-being effects of freedom are greater in countries that have more of it and are more accustomed to it.³⁵

Adapting to Bad Equilibrium: Crime and Corruption

Along the same vein, Soumya Chattopadhyay and I examined the extent to which individuals adapt to and become more tolerant of high levels of crime and illicit activity (corruption). Our initial assumption is simply described by the following vignette, based on my own experience. I grew up in Peru but live in Washington, D.C. In Lima, I think nothing of removing my jewelry before going out on the street, nor of putting my briefcase on the floor rather than on the seat of the car so that my windows do not get smashed as I drive. In contrast, I would be outraged if I had to take similar precautionary measures when I step out of my Dupont Circle office (but would surely be more cautious in other parts of Washington, D.C.).

We used our pooled Latinobarometro data to test the extent to which the well-being effects of being a crime victim are lower – as are reporting rates - in countries in Latin America where crime rates are higher. As crime rates go up, citizens typically adapt, which is evidenced in lower reporting rates (reporting of petty crimes is less likely to result in corrective action as overall rates go up) and less stigma attached to being a victim. Nick Powdthavee’s work on crime in South Africa suggests similar dynamics.³⁶

If higher levels of crime and corruption are the norm, and individuals adapt to those norms and come to expect high levels of crime and corruption, as in Latin America, then it may be more difficult to generate the social and political support that is necessary for the difficult policy measures required to achieve a lower crime norm. We took advantage of the variance in levels of crime and corruption across Latin American

³⁵ Inglehart et al (2008) Inglehart, R., Foa, R., Peterson, C., and Welzel, C. 2008. “Development, Freedom, and Rising Happiness: A Global Perspective (1981-2007)”, *Perspectives on Psychological Science*, Vol. 3, No. 4.

³⁶ Graham and Chattopadhyay (2008); and Powdthavee, Nicholas. 2005. Unhappiness and crime: Evidence from South Africa. *Economica*, 72, 531-547. For an overview of the interaction between behavior and institutions and the evolution of norms, see Bowles, Samuel. *Microeconomics: Behavior, Institutions, and Evolution* (Princeton: Princeton University Press, 2004). Young, P. 1998. *Individual Strategy and Social Structure: An Evolutionary Theory of Institutions*. Princeton: Princeton University Press. .

countries as a means to test this proposition. We posit that understanding the important role of norms in individuals' responses to legal and institutional changes is likely an important part of the design of policies to reverse crime and corruption.

Several papers in the burgeoning literature on happiness economics have documented the well-being costs associated with being a victim of crime or corruption. In this exercise, we build from the fairly standard assumption that these phenomena are negative for individual welfare, and query the extent to which the costs are mediated by norms of behavior on the one hand, and adaptation on the other. In other words, are the well-being costs of being a (petty) crime victim or of having to pay a bribe lower in contexts where these phenomena are more common?

The explanation for the variance in well-being costs could be two-fold. On the one hand, if crime and corruption are the norm, then individuals would feel less stigmatized if they were the victim of petty crime, and less unethical if they had to engage in corruption to get things done. On the other, if crime and corruption are the norm, it is likely that individuals adapt to these phenomena, as well as to the associated costs, as common occurrences. So while individuals who live in countries where crime and corruption levels are high are likely to be less happy in general, there is less likelihood that they will be made unhappy specifically because of these phenomena.

We tested these assumptions econometrically based on several years (1998-2008) of pooled *Latinobarometro* data - which provides us with information on happiness and on crime and corruption victimization (self-reported), as well as variance across and within countries and over time in the aggregate levels of these phenomena on the other. Our approach entailed determining the likelihood that an individual would be a crime victim, based on the usual explanatory factors, such as his or her own socioeconomic profile, plus the crime rate in the country that he or she lived in, plus whether or not he or she lived in a big city, and so on. We then isolated an "unexplained" victimization probability, or the victimization that we were not able to explain with the above factors and used that probability as a proxy for differences in crime norms across respondents.³⁷ Our intuition was that being a crime victim will have negative effects on happiness in any event, but that they will be lower when the unexplained victimization probability is higher.

³⁷ Our basic econometric strategy was as follows. Our first stage regression had the probability of being a crime victim (a logit equation, based on a yes-no crime victim question) as the dependent variable, and then a vector of controls for personal and socioeconomic characteristics (including being unemployed or not and being a minority, yes or no) along with other factors that could explain crime victimization: the reported crime rate, lagged growth, the Gini coefficient, lagged crime victimization (individual crime victimization both one and two years ago), and controls for the size of the city respondents live in (small, medium, or large, with the idea that there is more crime in large cities), plus the usual error term. We isolated the resulting residuals (error terms) as each individual's unexplained crime probability - e.g. the probability of being victimized that was not explained by objective traits. We then included that residual as an independent variable in a second stage regression with happiness on the left hand side, and usual socio-demographic controls (including minority status) plus crime victimization on the right hand side.

Our results support this intuition. First of all, our first stage regressions yielded (expectedly) that those individuals that are older, more educated, wealthier, unemployed, speak the dominant language (e.g. non-minorities) and that live in a country with a higher crime rate, as well as those that were victimized in the past year, were more likely to be crime victims in the present year. In the second stage, we find that, as expected, controlling for everything else, being victimized in the past year has a negative effect on happiness today. However, having a higher crime norm (or “unexplained” victimization probability) is positively correlated with happiness– e.g. it acts to counter or mitigate the negative effects of victimization. [Table 4a] Of course it is possible that our “crime norm” variable is picking up other traits that affect well being but that we cannot observe.

In our study on optimism in Africa, Matthew Hoover and I examined the extent to which optimism mediated adversity such as crime victimization. We found similar evidence of downward adaptation. Optimism or positive attitudes presumably affect the way in which people deal with adversity. We examined the well-being costs of having been a crime victim. We split the sample into those respondents who reported high levels of personal security and those who reported low levels of personal security, with respondents’ assessments of their living conditions as the dependent variable, and compared the coefficients on being a crime victim. We found that the costs were *lower* for those respondents who responded that they had *high* levels of insecurity than for those respondents who had *low* levels of insecurity. [Table 5]

There are several plausible explanations for this. On the one hand, if you expect that you will be a crime victim, some of those costs are already internalized in the expectation, and the actual event has less effects on well-being. Alternatively, being a victim of crime in an area where it is the norm are less likely to feel or suffer stigma effects than are those who are victims of crime in an area where crime is rare. Or perhaps the negative effects of being a crime victim are mediated by the higher levels of optimism that we find among the poor and more precariously situated. All three explanations could be at play.

Chattopadhyay and I repeated our econometric analysis of crime with identical regressions and the pooled Latinobarometro data, but with corruption victimization as the dependent variable. Like the crime question, the first order question is “were you or someone in your family a victim of corruption in the past year”, with possible answers yes or no. There are also questions about concerns about corruption in the same data set, but these are more subjective and typically linked to other optimism variables. We generated a similar corruption norm variable, based on the unobserved probability of being a corruption victim – as in the case of crime, and tested the extent to which it mediated the effects of corruption victimization on happiness.

We get virtually identical results. Being a victim of corruption in the past year is, not surprisingly, correlated with lower happiness levels. Our corruption norm variable, on the other hand, is positively correlated with happiness. [Table 4b] As in the case of crime, being a victim of corruption is mitigated in contexts where corruption is more common, and there are both less stigma effects and individuals have adapted or become

accustomed to it. Again, as in the case of crime, this adaptation is likely a good coping mechanism from an individual welfare perspective, but it also allows societies to remain in high corruption equilibriums for prolonged periods of time.

Our findings on the effects of both crime and corruption in our Afghanistan study support the adaptation hypothesis. Neither crime nor victimization due to corruption seem to have significant effects on people's sense of well-being in Afghanistan, perhaps because people are used to both.³⁸ [Table 6]. While this may be necessary in terms of coping strategies, it can surely not be good for the overall welfare of the country. Rather interestingly, there seem to be different crime and corruption norms in a few particular areas, which are characterized by more Taliban influence than the average. While our team was not able to interview in the conflict ridden zones, they did interview in a few districts in the South characterized by more Taliban presence than the average. In these areas, which were happier, on average, than the rest of the sample, crime and corruption rates were lower (particularly the latter), and victims of corruption were significantly less happy than the average. The findings suggest that where norms differ – and thus attitudes about the phenomena differ – individuals are less likely to adapt to these phenomena and suffer greater well-being effects. And while our findings may have nothing to do with the Taliban, as there are many other unobservable differences across these differences, they are surely suggestive of different norms of crime and corruption across them.

There are several ways to read these findings, as well as to judge whether adaptation is a good or bad thing for human welfare. Lower well-being costs are likely to make individuals more tolerant of or adaptable to such events, and thus less likely to do anything about them. At the same time, departing from a high crime/corruption norm is very hard – and potentially very costly – at the individual level. In other words, operating honestly in a situation where no one else does is inefficient and time consuming in the best instance and dangerous or risky in the worst.³⁹ Thus rather than operate “irrationally” or in a costly manner, most individuals adapt to the higher crime norm. While that may be good for individual well-being – and perhaps survival – it may be negative in a collective sense, as it allows societies to fall into and stay in very bad equilibrium - such as the prolongation of very corrupt and/or violent regimes – for prolonged periods of time. These adaptation dynamics help explain why regimes such as Mobutu in Zaire or Fujimori in Peru were able to stay in power much longer than the predictions of most reasoned observers.

Tipping high crime and corruption equilibrium is difficult at best, although it surely is possible, as evidenced by the highly visible case of Medellin, Colombia. Medellin had the highest murder rate – or at least one of the highest accepting that these things are difficult to measure precisely – in the world in the early part of the millennium.

³⁸ For detail, see Carol Graham and Soumya Chattopadhyay, “Well-Being and Public Attitudes in Afghanistan: Some Insights from the Economics of Happiness”, *Foreign Policy Working Papers*, #2, The Brookings Institution, Washington, D.C., May 2009.

³⁹ Francisco Thoumi has written eloquently about the costs of diverting from corrupt practices, such as refusing to pay a bribe, where corruption is the norm. See Thoumi, F. 1987. “Some Implications of the Growth of the Underground Economy”, *Journal of Inter-American Studies and World Affairs*, Vol. 29, No. 2.

After that, its crime rate tipped downward dramatically, due to a number of critical factors, including the leadership of a dynamic mayor, as well as crime rates reaching intolerable levels (the definition of tolerance obviously varies across populations). By 2008, citizens in Medellin had more confidence in their police than in any other city in the country, by a wide margin: 80% of respondents rather than 50% in other cities.⁴⁰

In the same way that individuals adapt to the benefits (and also to the negative externalities) of overall rising income trends, they also adapt to the costs of rising crime and corruption trends. In the same way that income increases across time may not result in commensurate increases in well-being, increasing crime and corruption may not result in commensurate decreases in well-being as societies adapt to these phenomena.⁴¹ There are surely tipping points in both instances, as levels of crime and corruption become unsustainable, for example, and/or as rising income levels result in positive externalities that increase happiness (and/or greed?).

Adapting to Illness: Variance in Health Norms across Cohorts and Countries

My research on health with several colleagues finds a major role for adaptation and variance in norms of health. A great deal of the variance in reported health which cannot be explained by objective differences. For example, although objective health indicators are better in the Netherlands than in the United States, reports of work-related disability are higher in the former than in the latter.⁴² Reports of conditions like diabetes and hypertension, meanwhile, are notoriously inaccurate, particularly in poor countries where awareness of these conditions is low. Across all countries, they are mediated by income and education, among other factors.⁴³

Across countries, there is higher tolerance for poor health in the poorer countries, and less satisfaction with better health in the rich ones. Within countries, while rich people are slightly more satisfied with their health than poor ones and more “objective” measures of health, such as the EQ-5D health index, also track with socioeconomic status, the gaps in the assessments of satisfaction are much smaller than gaps in objective

⁴⁰ See *Encuesta Anual Ciudadana Sobre Percepcion y Victimizacion*.

⁴¹ For a discussion of how people adapt and how these strategies may vary across socioeconomic cohorts, see DiTella, R., Galiani, S., and Shargrotsky, E. 2007. “*Crime Distribution and Victim Behavior During a Crime Wave*”, Mimeo, Harvard University, November.

⁴² Arie Kapteyn, James P. Smith, and Arthur van Soest, “Vignettes and Self-Reports of Work Disability in the United States and the Netherlands”, *American Economic Review*, March 2007.

⁴³ Thomas and Frankenburg first studied differences in self-reported and measured health based on the Indonesian Family Life Survey. See D. Thomas and E. Frankenburg, “The Measurement and Interpretation of Health in Social Surveys” in CJL Murray et al., *Summary Measures of Population Health* (Geneva: World Health Organization, 2000). Susan Parker and her colleagues built on that work and studied these differences based on a broad purpose, multi-topic, nationally representative survey in Mexico, first conducted in 2002 and then repeated in 2005. Income predicts lower differences between measured and reported height, while the probability of having seen a doctor in the past three months increases the probability of accurately reporting weight among the obese and overweight. Of her total sample, 7% do not have hyper-tension but think they do; and 13% have it but do not know it. See Susan Parker, Luis Rubalcava, and Graciela Teruel, “*Health in Mexico: Perceptions, Knowledge and Obesity*”, Paper Prepared for the Inter-American Development Bank Project on Understanding Quality of Life in LAC, Mimeo, January 2008.

conditions (quality, access, outcomes) would predict.⁴⁴ The same often holds across education, job, and economic satisfaction domains, depending on the sample.⁴⁵

Lora and collaborators, and Chattopadhyay and I, (using different data sets for Latin America) find that respondents in poor countries are more or at least as likely to be satisfied with their health systems than are respondents in wealthier ones, while respondents in some very poor countries, such as Guatemala, have much higher levels of health satisfaction than do those in much wealthier ones with better health systems, such as Chile. Deaton finds the same pattern – or lack of one – with satisfaction with health systems in the worldwide Gallup Poll. The same percentage of Kenyans (82%), for example, are satisfied with their health system as are citizens of the U.S. While there are surely outliers, objective health conditions – as measured by indicators such as morbidity and life expectancy – are materially better in the wealthier countries.⁴⁶ Cross country comparisons of average levels of personal health satisfaction demonstrate a similar although not as notable pattern. Health satisfaction seems to be more closely associated with cultural differences across countries than it is with objective indicators, such as life expectancy and infant mortality, or with per capita incomes.

Within countries, wealthier respondents are more likely to be happier and more satisfied with their health than are poor ones. Despite the aggregate pattern, though, there is clearly an “optimism bias” in the responses of the poorest respondents, in health as well as in other domains, at least in Latin America. The gaps between the subjective assessments of the rich and poor are *much* smaller than the gaps in objective indicators.

We explored the effects of obesity on well-being in the United States, based on the National Longitudinal Survey of Youth (NLSY) found that in cohorts where obesity rates are high, such as blacks and Hispanics, obese people do not report being more unhappy than others, whereas in cohorts where obesity rates are low, obese people tend to be much unhappier than the mean (controlling for other factors such as age, gender and income).⁴⁷ In other words, it makes one less unhappy to be obese if high levels of obesity are the norm. [Figure 3] We also find a negative link between obesity and upward income mobility; if one is obese and works at Wal-Mart, he or she is less likely to move on to a better job than if he or she is not. Thus poor health norms may be poverty traps as well as health traps. Finally, and again suggesting an important mediating role for norms of health, we found in Russia, where obesity is still seen as a sign of prosperity, obese respondents, who were typically wealthy businessmen or farmers, were happier, on average, than others. These findings were above and beyond the objective health effects of obesity – such as propensity for diabetes, high blood pressure, and heart disease and mobility problems.

⁴⁴ The EQ5D is a 5 part question developed for the British general population, and now widely used in other contexts. The descriptive dimensions are: mobility, self care, usual activities, pain/discomfort, and anxiety/depression, with the possible answers for each being: no health problems, moderate health problems, and extreme health problems. See Shaw et al (2005).

⁴⁵ Of course, this could also be considered a pessimism bias of the rich.

⁴⁶ *Paradox and Perception*; Graham and Chattopadhyay (2009); Deaton (2008).

⁴⁷ Carol Graham, “Happiness and Health: Lessons – and Questions – for Policy, *Health Affairs*, January February, 2008.

Another body of research is based on the Gallup World Poll for Latin America and the EQ5D index. We find that the (expected) negative effects of extreme conditions in self care and mobility on both life satisfaction and health satisfaction disappear when a control for personal optimism is included.⁴⁸ It is likely that people adapt to these conditions, and the importance of inherent character traits in maintaining happiness or satisfaction is more important than (irreversible) objective conditions. In contrast, extreme pain, extreme anxiety, and the usual activities continue to have negative effects on health satisfaction when the optimism control is included, suggesting that even naturally optimistic people cannot adapt to these conditions. In general, moderate conditions have a more consistent effect, as only a few people report having extreme conditions. [Figure 4]

It is likely that people are less able to adapt to the unpredictability of certain health conditions than they are to the unpleasant certainty of others. The well-being of paraplegics, for example, typically adapts back, while many epileptics face a lifetime of uncertainty about when they will have seizures. A number of studies of the quality of life of epileptics find that age – and in particular higher age of onset – posed significant and negative effects on health-related quality of life. Adapting to the uncertainty is probably more difficult later in life, when social, economic, and psychological dimensions are more established.⁴⁹

Arie Kapteyn finds that people's well-being is more affected by anxiety about certain conditions, such as financial or health difficulties, than it is by the difficulties themselves.⁵⁰ Andy Eggers and Sandip Sukhtankar, and I find that innate optimism mediates the intensity of the effects of anxiety, such as fear of unemployment, on well-being.⁵¹ Optimism likely interacts with the anxieties related to particular conditions to determine health satisfaction. Finally, different levels of tolerance for disease and pain, which can vary significantly across countries and cultures, also mediate the relationship between objective and subjective health conditions.

All of these findings help explain why norms of health vary so much across countries, cohorts, and cultures, and why quality of health care varies so much even across countries with comparable levels of GDP. Demand for better health care is often lower in societies that need improvements much more than it is in those that have much better care, but also have very different norms of health and higher aspirations based on those norms. And once again, individuals' capacity to adapt to adversity – in this case ill health – yet maintain relatively high happiness levels, may be a good protective

⁴⁸ Julienne Labonne and Robert Chase, "So You Want to Quit Smoking: Have You Tried a Mobile Phone?" *Policy Research Working Paper Series*, No. 4657, World Bank, June 2008

⁴⁹ See Lin Lua, Halilah Haron, Gertrude Cosmos, Nurul Hudoni Nawi, "The Impact of Demographic Characteristics on Health-Related Quality of Life: Profile of Malaysian Epilepsy Population", *Applied Research in Quality of Life*, Vol. 2, 2007.

⁵⁰ Kapteyn et al (2007).

⁵¹ Carol Graham, Andrew Eggers, and Sandip Sukhtankar, "Does Happiness Pay? An Initial Exploration Based on Panel Data for Russia", *Journal of Economic Behavior and Organization*, Vol. 55, 2004.

mechanism from an individual psychological perspective, but at the same time may result in collective tolerance for poor health systems and health status.

Conclusions and Implications for Policy

Understanding what makes people happy and why may help us understand some of the fundamental questions in economics, such as the relationships between happiness and income and happiness and health, as well as how these relationships differ in different countries and in different cultures at different stages of development. What makes people happy seems to be remarkably similar in all sorts of countries and contexts, from war torn Afghanistan to new democracies like Chile and established ones like the United Kingdom.

Increasing levels of income – and income growth - tend to be accompanied by rising expectations and related frustrations (at the macro level, the paradox of unhappy growth, and at the micro-level, the frustrated achievers), across a surprisingly wide range of countries at different economic development levels. At the same time, individuals across the globe seem remarkably adept at adapting expectations downwards when necessary – our so-called happy peasants. In the same way that rising incomes do not translate into ever increasing levels of happiness, remarkably adverse circumstances, such as high levels of crime and corruption or very poor standards of health, do not seem to result in equivalently low levels of happiness. Happiness levels vary across countries and with economic and institutional conditions. Yet there is evidence of a great deal of upward and downward adaptation, as well as a clear role for innate character traits, in mediating the relationship between happiness and a range of environmental variables.

Surely deep deprivation makes people unhappy, while many things that accompany higher levels of development, such as better public goods and less disease, make people happier. Yet higher per capita income levels do not translate directly into higher average happiness levels. In part this is because there are major differences in the nature of public goods and institutional regimes across countries. There are also cultural differences, which are even more difficult to measure.

Adapting expectations downward in difficult contexts or at times of adversity, such as economic crises or rising rates of crime, seems to be a useful trait for preserving individual happiness in the face of major challenges. At the same time, it can result in lower collective welfare levels by increasing societal tolerance for bad equilibrium, such as high levels of crime and corruption or dysfunctional governments. Rising expectations in the context of economic progress or major improvements in health, in contrast, may actually reduce happiness, or at least require constantly increasing incomes or health improvements to keep well-being levels constant. At the same time rising expectations may increase collective welfare by generating demand for better standards in areas such as health and education. Individuals' ability to adapt, meanwhile, is determined by some intersect between innate character traits (being naturally cheerful or curmudgeonly, for example) on the one hand, and experience in the environment on the other. At minimum, these insights allow us to better understand how societies can be surprisingly tolerant –

and happy - in the context of very bad conditions, and surprisingly critical - and unhappy - in the context of good conditions.

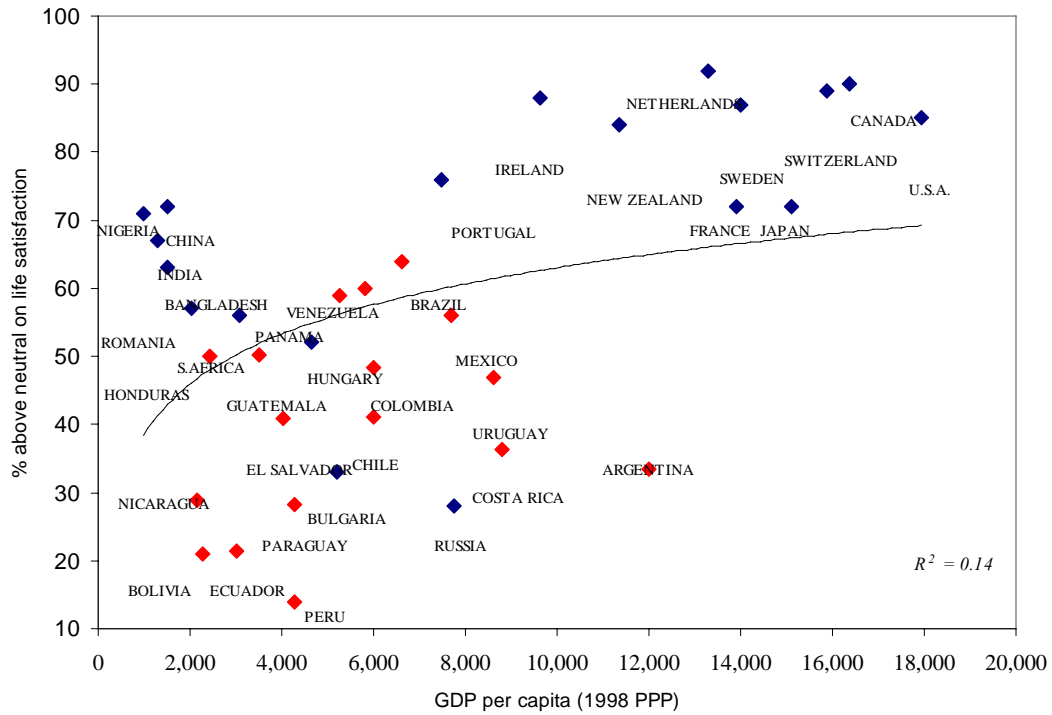
The obvious question, then, is how relevant is all of this for policy? Can policymakers take from these lessons? Can nations develop progress indicators based on the findings from happiness surveys? There is increasing discussion of using happiness surveys as a tool for public policy which complements income data, including happiness-based measures, such as national well-being accounts, as complements to national income accounts.⁵² Yet there are also questions, not least the relevant definition of happiness. What makes it a useful survey instrument is its open-ended nature, and the definition is left up to the respondent, allowing us to compare happiness responses across individuals in a wide range of countries and cultures. Yet the definition of happiness matters to its application for policy, which then raises a host of normative questions. Is happiness merely contentment? Is it contentment, welfare, and dignity? Is it something else? Different societies would surely come to different conclusions about what was worth pursuing as a policy objective, but at this point we lack an analytical frame for posing such a question to the general public.

The issue of adaptation makes this question even more difficult to resolve. Just because individuals can adapt to extreme adversity and remain happy does not mean that their needs are less compelling than the needs of those who live in conditions of greater prosperity, with higher aspirations of welfare, freedom, and health, among other things. People in Afghanistan live in dire poverty and in a context of continuous violence yet are happier than people in Chile. What can we do with this information? At minimum it is a window into human psychology which can help explain how Afghan and Chilean societies can coexist as distinct equilibrium, even in a world where global information and transportation have eroded all sorts of boundaries and borders. Understanding how to make Afghanistan's social equilibrium closer to Chile's – at least in terms of freedom, citizen trust, health, and security – without making Afghans less happy is a challenge that our findings pose but cannot resolve.

⁵² Diener and Seligman (2004) and Kahneman, D., Krueger, A., Schkade, D., Schwarz, N. and Stone, A. 2004. Toward national well-being accounts. *AEA Papers and Proceedings* 94, 429–34.

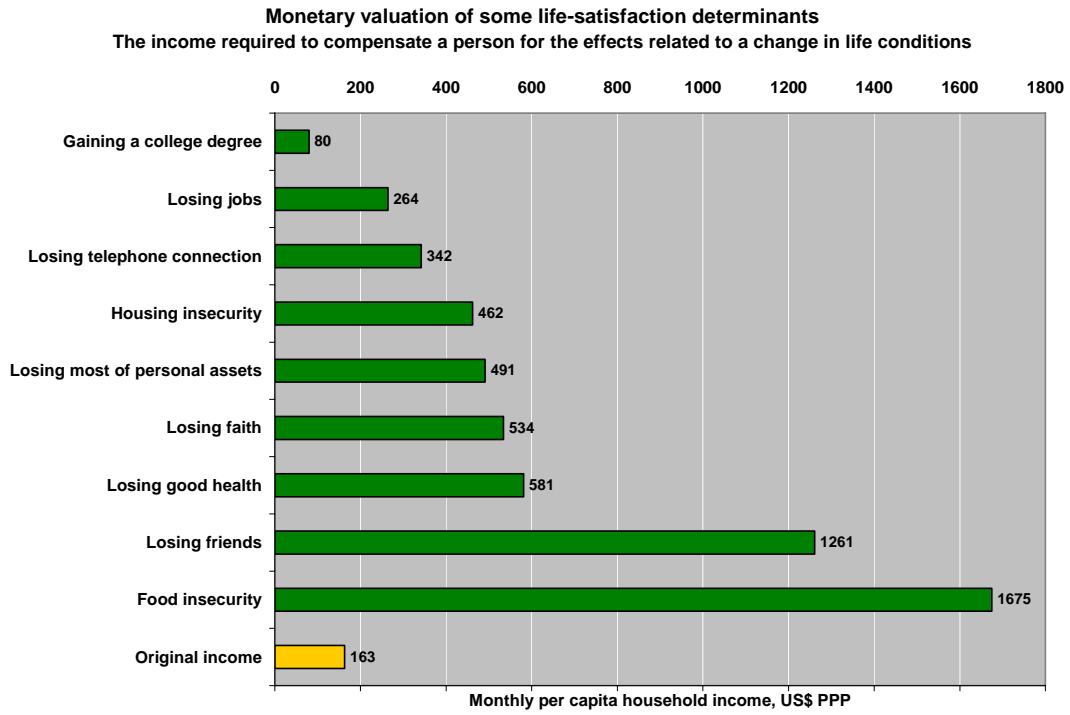
Appendix

Figure 1: Happiness around the world, 1990s



Source: Carol Graham and Stefano Pettinato (2002). *Happiness and Hardship: Opportunity and Insecurity in New Market Economies*. Washington, D.C.: The Brookings Institution

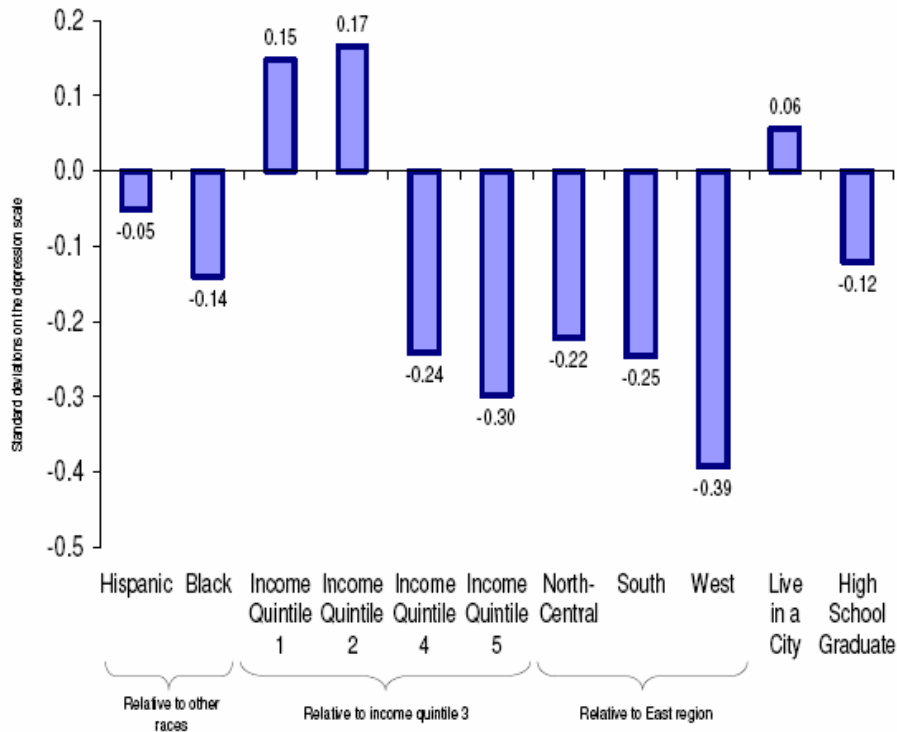
Figure 2: Life Satisfaction Determinants



Source: Fuente, IDB calculation using Gallup (2007).

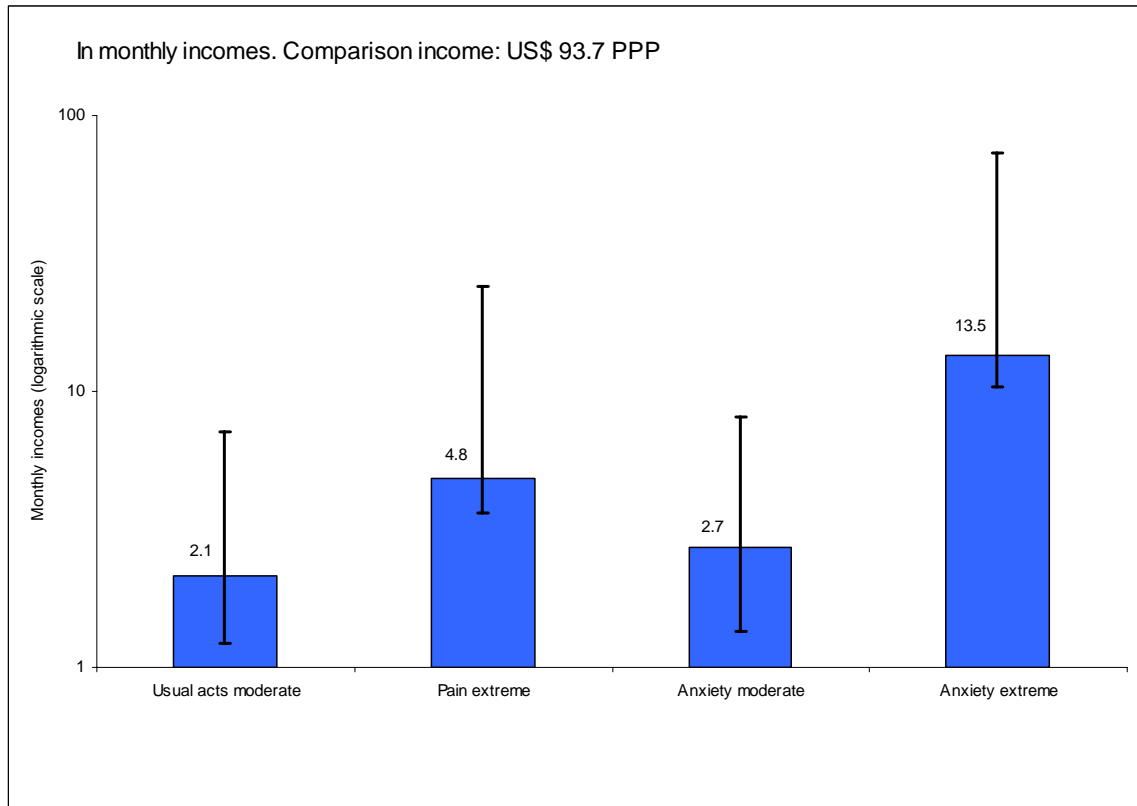
Note: The respondent is a single 30 year-old woman, with no children, a high-school degree, employed, has friends and religious beliefs.

Figure 3: Obesity and Unhappiness



Source: Carol Graham, “Happiness and Health: Lessons – and Questions – for Policy, Health Affairs, January - February, 2008.

Figure 4: Income Equivalences of Health Conditions in EQ5D



Source: Authors' calculations based in Gallup 2006 and 2007.

Note: direct equivalences are based on the effect of each health component on life satisfaction. The EQ5 equivalences are based on the effect of changes in the EQ5D index, derived from changes in each health component. Vertical bars represent a 95% confidence interval.

Table 1: The paradox of unhappy growth

The relationship among satisfaction, income per capita and economic growth

	122 countries			
	GDP per capita		Economic growth	
Life satisfaction	0.788	***	-0.082	***
Standard of living	0.108	***	-0.018	***
Health satisfaction	0.017	*	-0.017	***
Job satisfaction	0.077	***	-0.006	
Housing satisfaction	0.084	***	-0.006	

Source: IDB - RES using Gallup World Poll 2006 - 2007 data.

Source: Eduardo Lora. *“Beyond Facts: Understanding Quality of Life in Latin America and the Caribbean”*. Inter-American Development Bank

Notes:

1. OLS regression; dependent variable is average life satisfaction per country, growth rates are averaged over the past five years. N=122
2. The coefficients on GDP per capita are marginal effects; how much does the satisfaction of two countries differ when one has two times the incomes of another. The coefficients on growth imply how much an additional percentage point of growth affects life satisfaction.
3. The life satisfaction variable is on a 0 to 10 scale; all others are the percentage of respondents that are satisfied.

Table 2: Happiness immune to country level economic growth?

Dependent variable: happy				
age	-0.0240	-0.0230	-0.0230	-0.0220
	(4.40)**	(4.34)**	(4.23)**	(4.29)**
age2	0.0000	0.0000	0.0000	0.0000
	(3.53)**	(3.88)**	(3.72)**	(3.76)**
gender	0.0330	0.0070	0.0070	0.0070
	-1.5500	-0.4800	-0.5200	-0.4800
married	0.0790	0.0910	0.0940	0.0930
	-1.7800	(2.40)*	(2.56)*	(2.60)**
edu	-0.0410	-0.0260	-0.0280	-0.0260
	-1.5300	-1.1800	-1.2900	-1.2800
edu2	0.0010	0.0010	0.0010	0.0010
	-0.8800	-0.7000	-0.7900	-0.7600
socecon	0.2110	0.2160	0.2150	0.2170
	(5.22)**	(5.76)**	(5.77)**	(5.78)**
subinc	0.2900	0.2900	0.2940	0.2920
	(8.78)**	(8.02)**	(8.36)**	(8.41)**
ceconcur	0.2340	0.2260	0.2360	0.2370
	(9.04)**	(9.50)**	(7.66)**	(8.92)**
unemp	-0.1810	-0.1760	-0.1900	-0.1880
	(2.05)*	(3.45)**	(3.59)**	(3.69)**
poum	0.1800	0.1890	0.1830	0.1840
	(4.48)**	(5.42)**	(5.56)**	(5.59)**
domlang	0.5380	0.4810	0.4840	0.4810
	(2.73)**	(2.48)*	(2.48)*	(2.48)*
vcrime	-0.1160	-0.1060	-0.1060	-0.1080
	(2.30)*	(2.98)**	(2.89)**	(3.08)**
els	0.0900			
	(5.48)**			
growth_gdp	0.0170	-0.0090	-0.0040	-0.0060
	-0.5300	-1.1100	-0.6000	-0.7700
gini	-0.0170	-0.0270	-0.0240	-0.0240
	-0.7000	-1.2400	-1.1200	-1.1900
gdpgrl1			-0.0190	-0.0180
			-1.4000	-0.9900
gdpvol2				0.0030
				-0.1400
Observations	34808	67308	67308	67308
Absolute value of z statistics in parentheses				
* significant at 5%; ** significant at 1%				
Regressions clustered at a country level				

Table 3: Correlates of Pro-Market Attitudes

Dep. Var.: Happiness		(1)		(2)	
		coeff.	z-stat	coeff.	z-stat
Age		-0.014	-1.99	-0.008	-1.24
Age ² /100		0.011	1.46	0.001	0.13
Male		0.050	1.29	0.036	0.92
log(wealth)		0.361	8.08	0.632	15.11
Education		0.005	1.01	-0.031	-6.34
Married		0.091	2.30	0.054	1.35
Employment Status					
	selfemployed	-0.083	-1.50	-0.110	-1.98
	public employee	-0.041	-0.53	0.035	0.45
	private employee	0.000	0.00	0.026	0.42
	unemployed	-0.310	-3.81	-0.294	-3.63
	retired	-0.082	-0.88	-0.030	-0.33
	student	0.091	1.22	0.049	0.66
Pro-democracy dummy		-0.017	-0.48	-0.132	-3.63
Satisfaction with democracy		0.307	14.68	0.362	18.28
Pro-market attitudes		0.543	7.85	0.521	7.70
Inflation Rate				-0.007	-4.96
Unemployment Rate				-0.004	-0.75
<i>Pseudo-R</i> ²		0.058		0.027	
Number of obs.		14,255		11,197	

Source: Authors' calculations using data from *Latinobarometro*

Note: Country fixed-effects estimation.

Ordered logit estimations:

with country dummies in (1) (country coefficients not shown)
and without country dummies in (2).

Omitted reference category is housewives or househusbands

Table 4a: Effects of Crime on Happiness in Latin America

Explanatory variables	Dependent Variable: happy			
age	-0.0230	-0.0200	-0.0210	-0.0180
	(0.000)**	(0.000)**	(0.000)**	(0.005)**
age2	0.0000	0.0000	0.0000	0.0000
	(0.000)**	(0.000)**	(0.000)**	-0.051
gender	0.0070	0.0210	0.0400	0.0240
	-0.614	-0.201	(0.050)*	-0.199
married	0.0850	0.0600	0.0630	0.0620
	(0.000)**	(0.001)**	(0.004)**	-0.104
edu	-0.0220	-0.0260	-0.0280	-0.0240
	(0.000)**	(0.000)**	(0.000)**	-0.385
edu2	0.0010	0.0010	0.0010	0.0010
	-0.077	(0.038)*	(0.024)*	-0.451
socecon	0.2110	0.2140	0.2280	0.2280
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
subinc	0.2870	0.3030	0.3060	0.3140
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
ceconcur	0.2190	0.1970	0.2350	0.2180
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
unemp	-0.1770	-0.2170	-0.1990	-0.2300
	(0.000)**	(0.000)**	(0.000)**	(0.002)**
poum	0.1750	0.1410	0.1470	0.1530
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
domlang	0.5950	0.6520	0.6360	0.5490
	(0.000)**	(0.000)**	(0.000)**	(0.006)**
vcrime	-0.0960	-0.5360	-1.0770	-0.8930
	(0.000)**	(0.000)**	(0.000)**	-0.239
crresid		0.4460	1.0170	0.8020
		(0.000)**	(0.000)**	-0.286
els			0.1000	
			(0.000)**	
vcrimel1 (1 year lag)			-1.4710	-1.8190
			(10.77)**	-1.67
vcrimel2 (2 year lag)			1.8550	1.6760
			(15.52)**	-1.47
Control for gini	No	No	No	Yes
Control for GDP growth rate	No	No	No	Yes
Control for lagged GDP growth rates	No	No	No	Yes
Absolute value of z statistics in parentheses				
* significant at 5%; ** significant at 1%				

Source: Carol Graham and Soumya Chattopadhyay, using data from *Latinobarometro*.

Table 4b: Effects of Corruption on Happiness in Latin America

Explanatory variables	Dependent Variable: happy			
age	-0.0230	-0.0210	-0.0230	-0.0190
	(0.000)**	(0.000)**	(0.000)**	(0.003)**
age2	0.0000	0.0000	0.0000	0.0000
	(0.000)**	(0.000)**	(0.000)**	(0.035)*
gender	0.0100	0.0410	0.0500	0.0470
	-0.473	(0.014)*	(0.014)*	-0.075
married	0.0840	0.0620	0.0710	0.0690
	(0.000)**	(0.001)**	(0.001)**	(0.030)*
edu	-0.0240	-0.0350	-0.0400	-0.0380
	(0.000)**	(0.000)**	(0.000)**	-0.129
edu2	0.0010	0.0010	0.0010	0.0020
	-0.053	(0.002)**	(0.006)**	-0.263
socecon	0.2120	0.2270	0.2360	0.2400
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
subinc	0.2910	0.3150	0.3120	0.3280
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
ceconcur	0.2170	0.1840	0.2310	0.2120
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
unemp	-0.1680	-0.2000	-0.1890	-0.2190
	(0.000)**	(0.000)**	(0.000)**	(0.001)**
poum	0.1760	0.1580	0.1690	0.1730
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
domlang	0.5970	0.6680	0.6450	0.5880
	(0.000)**	(0.000)**	(0.000)**	(0.001)**
vcorr	-0.1570	-0.9160	-0.9070	-1.1420
	(0.000)**	(0.000)**	(0.000)**	(0.017)*
corrresid		0.8090	0.8330	1.0340
		(0.000)**	(0.000)**	(0.027)*
els			0.0970	
			(0.000)**	
Control for gini	No	No	No	Yes
Control for GDP growth rate	No	No	No	Yes
Control for lagged GDP growth rates	No	No	No	Yes
Absolute value of z statistics in parentheses				
* significant at 5%; ** significant at 1%				

Source: Carol Graham and Soumya Chattopadhyay, using data from Latinobarometro.

Table 5: Costs of Crime Victimization in Africa

Regressions of Living Conditions on Crime in Africa

Only includes observations where personal security >= 3

Observations 11675
 LRchi2(30) 1880.57
 Prob > chi2 0.00
 Pseudo R2 0.05

L_Conditions	Coefficient	T-Score
Age	-0.0442***	-7.34
Age2	0.0003***	5.75
Yeduc	0.0822***	8.06
Male	-0.0833**	-2.46
Income	0.0794***	11.24
Urban	-0.0098	-0.25
Unemployed	-0.0300	-0.75
Freq_Crime_Victim	-0.0794***	-4.08
Capeverde	0.3267***	4.58
Lesotho	-0.8754***	-10.77
Mali	-0.1684**	-2.16
Mozambique	0.8037***	10.22
Safrica	-0.0534	-0.76
Kenya	0.3875***	5.61
Malawi	-1.1061***	-13.71
Namibia	0.8630***	11.02
Nigeria	1.0310***	15.86
Tanzania	-0.1136	-1.36

Notes: Uganda is the dropped country dummy

*Significant at the 10% level

**Significant at the 5% level

***Significant at the 1% level

Source: Afrobarometer

Only includes observations where personal security < 3

Observations 3954
 LRchi2(30) 605.18
 Prob > chi2 0.00
 Pseudo R2 0.05

L_Conditions	Coefficient	T-Score
Age	-0.0370***	-3.71
Age2	0.0003***	3.08
Yeduc	0.0854***	4.79
Male	-0.1164**	-2.00
Income	0.0787***	6.41
Urban	0.2278***	3.20
Unemployed	-0.0363	-0.53
Freq_Crime_Victim	-0.0459**	-2.43
Capeverde	0.0999	0.64
Lesotho	-1.2125***	-9.92
Mali	-0.2251	-1.21
Mozambique	0.3064**	2.39
Safrica	-0.2786**	-2.45
Kenya	0.5895***	5.46
Malawi	-0.3532	-1.43
Namibia	0.8255***	5.89
Nigeria	0.7854***	5.82
Tanzania	0.2647**	2.14

Notes: Uganda is the dropped country dummy

*Significant at the 10% level

**Significant at the 5% level

***Significant at the 1% level

Source: Afrobarometer

Source: Carol Graham and Matthew Hoover, using data from *Afrobarometer*.

Table 6: Costs of Crime Victimization in Afghanistan

	Reg #1	Reg #2	Reg #3	Reg #4	Reg #5	Reg #6
Dependent variable: happy			tlbn=1	tlbn=0	tlbn=1	tlbn=0
age	-0.0640	-0.0580	-0.0360	-0.0560	-0.0490	-0.0560
	(0.004)**	(0.016)*	-0.538	(0.040)*	-0.398	(0.040)*
age2	0.0010	0.0010	0.0000	0.0010	0.0000	0.0010
	(0.015)*	(0.021)*	-0.690	(0.042)*	-0.574	(0.048)*
gender	0.0420	0.0690	0.2720	0.0400	0.1850	0.0450
	-0.771	-0.657	-0.844	-0.801	-0.892	-0.778
married	0.0020	0.0280	-0.2900	0.0900	-0.2160	0.1020
	-0.989	-0.839	-0.404	-0.546	-0.532	-0.492
hlthstat	0.4440	0.2280	0.0380	0.2500	0.0280	0.2670
	(0.000)**	(0.000)**	-0.791	(0.000)**	-0.846	(0.000)**
hhinc1	0.9300	-0.1020	-0.3270	0.0160	-0.3830	0.0190
	(0.000)**	-0.696	-0.609	-0.956	-0.548	-0.947
unemp	-0.2040	-0.2060	-0.0930	-0.1720	-0.1130	-0.2060
	-0.173	-0.195	-0.825	-0.321	-0.789	-0.231
tlbn	0.5020	0.4100				
	(0.000)**	(0.000)**				
els		0.0840	-0.0460	0.1100	-0.0520	0.0900
		(0.009)**	-0.571	(0.002)**	-0.519	(0.013)*
lls		0.1100	0.2290	0.0760	0.2420	0.0910
		(0.000)**	(0.001)**	(0.007)**	(0.000)**	(0.001)**
satdemo		0.2390	0.3140	0.2180	0.3380	0.2180
		(0.000)**	(0.030)*	(0.001)**	(0.019)*	(0.001)**
outlook		1.0380	1.0340	1.0350	1.0280	1.0390
		(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
frexpr		0.0780	0.0100	0.0780	0.0390	0.0780
		-0.053	-0.915	-0.086	-0.687	-0.085
frchoice		0.0490	0.0780	0.0550	0.0720	0.0550
		(0.007)**	-0.080	(0.007)**	-0.108	(0.007)**
vcrime					-0.2700	0.1310
					-0.442	-0.431
vcorr			-0.6140	-0.0820		
			(0.031)*	-0.477		
Observations	1924	1746	335	1393	338	1400
p values in parentheses						
* significant at 5%; ** significant at 1%						

Source: Carol Graham and Soumya Chattopadhyay (2009).